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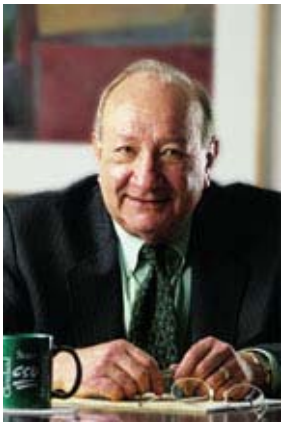
A Message from President Michael Schwartz



Our goal at Cleveland State University is to create a student-focused center of scholarly excellence. We expect to be known as a place of opportunity for those who wish to know the truth of things, who are willing to strive for it, and who seek a better life for themselves and their fellow citizens. Within this student-centered supportive environment, we are committed to developing the minds and talents of all who enroll in our courses.

Part of our commitment demands that we help students meet the challenges of living and learning in a knowledge-based, ever-changing world. Added to this challenge are the obligations to learn about and know one another. The tragic events that took place in the first year of the new millennium have forced us out of our isolation as a people and made us painfully aware that we must educate one another to be responsible members of a democratic society and citizens of the world. Our curriculum is designed for these goals. Among our 80 undergraduate programs you will find opportunities to study everything from medieval society to international trade, computers and technology, and the environment. You will also find opportunities for study abroad.

The university insists on creating an atmosphere that promotes intellectual growth and the creation of new knowledge. Working beside you in these discoveries will be a first class faculty. Ninety-eight percent of our full-time faculty hold the highest degrees in their fields. Four out of five hold the Ph.D., a figure unmatched by any other Ohio university. You will meet these professors, not graduate students, in our classrooms and laboratories. And all of our accepted students are admitted onto the main campus, not to a branch or a two-year program within the institution. You will find that, even as undergraduates, you will be welcomed into research teams by our faculty.

We believe that a first-class education benefits not only the graduate of Cleveland State but the rest of society as well. Public and private institutions, corporations, and businesses have joined as our partners in a dynamic learning experience. With their help, the university creates an environment where the individual, the curriculum, and the community interact to achieve the highest levels of learning. The knowledge you gain during your course of studies on our campus will be invaluably augmented by your experience in the community, whether as a participant in our outstanding cooperative education opportunities, through service learning, or as an intern or member of a ground-breaking research team. We hope that you will, in turn, employ your knowledge to solve problems, stimulate economic activity, and increase opportunity in these same communities.

This, then, is the educational philosophy of Cleveland State University. If you have been intrigued by what you have read so far, I invite you to read through the pages of this catalog, investigate our academic programs, and come visit our campus to meet our faculty.

I look forward to meeting you.

Michael Schwartz
President

Cleveland State Highlights

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Nance College of Business Administration

- Out of approximately 2,000 business programs in the country, the college is among a select group of about 435 business schools that are accredited by AACSB International, the Association to Advance Collegiate Schools of Business.
- With more than 3,200 students, the Nance College of Business Administration is one of the largest business schools in Ohio.
- The college is housed in Monte Ahuja Hall, a beautiful six-story building, completed in 1998. Ahuja Hall includes faculty and department offices, classrooms, seminar rooms, and computer classrooms and laboratories with more than 125 computers that are continuously upgraded. State-of-the-art software includes Rational Rose for systems analysis and design, SAP for enterprise resource planning, and SAS/SPSS for data-analysis.
- Our business students are award-winners: the Financial Management Association chapter earned the Superior Chapter Award from FMA International for 2003-04; marketing students in the Cleveland State University Chapter of the American Marketing Association have won numerous awards in recent national competitions.
- Bachelor's degree programs in business (B.B.A.) and computer and information sciences (B.S.C.I.S.) are offered for day, evening, and weekend students. B.B.A. students can specialize with majors in:
    - Accounting
    - Business Administration
    - Business Economics
    - Finance
    - Information Systems
    - International Business
    - Management and Labor Relations
    - Marketing
    - Operations Management and Statistics.
- B.S.C.I.S. students may major in CIS (with its focus on applied areas of computer and information science) or CSC (which emphasizes theoretical, quantitative and technical knowledge).
- Nance has one of the largest MBA programs in Ohio, with courses offered weekdays, evenings, and weekends at Cleveland State’s Downtown Campus, at the West Center and East Center extended campuses, and at various corporate sites in Greater Cleveland.
- Comprehensive graduate degree programs include the Doctor of Business Administration, Master of Accountancy, Master of Labor Relations and Human Resources, Master of Computer and Information Science, the MBA in Health Care Administration, and the Master of Public Health.
- Alumni of the MBA programs include more than 100 CEOs/presidents and countless vice presidents, senior-level executives, directors, controllers, CFOs, business owners, and partners. Nance alumni currently hold leading positions at such companies as Medical Mutual of Ohio, Lubrizol Additives, Synergy International, Hawk Corporation, and National City Bank.
- The Nance faculty features distinguished scholars and nationally recognized experts in various business and technical fields. Nearly nine out of 10 full-time faculty members have earned doctorates or other terminal degrees in their fields of specialization—many from the world's leading business schools. In addition, faculty are actively involved in the community -- as business consultants, members of professional organizations, and community leaders -- bringing a richness of practical application to the courses they teach.

College of Education and Human Services

- The College of Education and Human Services offers 22 different undergraduate major or minor programs which lead to provisional teacher licensure in Ohio. The college also offers undergraduate human services majors in a number of areas, including nursing, sport manager, and exercise/fitness specialist. Graduate degree offerings include master’s degrees in Curriculum and Instruction, School and Community Agency Counseling, Educational Administration, Adult Learning and Development, Community Health Education, Sport Management, and Exercise Science; Educational Specialist degrees in Administration and Counseling; and a doctoral degree in urban education.
- The State of Ohio’s Department of Education has approved and the National Council for Accreditation of Teacher Education (NCATE) has fully accredited the college’s teacher preparation programs.
- The School and Community Agency Counseling Programs are accredited by the Council for Accreditation of

Counseling and Related Educational Programs (CACREP).

- The undergraduate Nursing program is approved by the Ohio Board of Nursing, and by the Commission on Collegiate Nursing Education (CCNE).
- The college's vision for teacher preparation mirrors that of the Ohio Department of Education: To recruit the best and brightest into the teaching profession, to target recruitment to address high-need areas, to develop a diverse teaching force, and to graduate fully competent teachers who are responsive, reflective professionals who value collaboration and partnership.
- In collaboration with John Carroll University and the University of Akron, the college received $28 million from the Ohio Department of Education to establish the Ohio Reading First Center which provides professional development and technical assistance to elementary schools implementing a research-based initial reading program.
- As the result of a $1 million grant from the Ohio Board of Regents, the college has also instituted the Northeast Ohio Center of Excellence for Mathematics and Science Teacher Education. This center aims to improve the teaching and learning of mathematics and science in schools and universities through collaboration among four higher education institutions, a variety of K-12 school districts, professional development centers, and the Ohio Resource Center.
- Three faculty members of the College of Education and Human Services were awarded a $3.5 million grant to enhance the literacy enrichment and achievement of preschool children.
- After three years in operation, over 40% of First Ring Leadership Academy graduates have made career moves into progressively responsible positions and now over 60% of them hold leadership positions, such as assistant principals, central office supervisors and personnel directors in First Ring schools. The academy will begin its fourth cohort in the fall of 2007. As a result of strategic planning done in 2006, the academy will spend the spring semester evaluating its best practice procedures in order to strengthen the delivery of programs and services as well as academy communications. We will also be offering several leadership forums and seminars to our graduates and other leaders from this region.
- Under its auspices, the college operates the Greater Cleveland Education Development Center to provide for the continuing education of teachers throughout the area.
- The college leads Ohio in the number of master's degrees awarded to African Americans and the number of students who have completed adolescent/young adult licensure programs in mathematics and science.
- The college received the Ohio Association of Teacher Educators' Outstanding Field Experience Program Award for the internship component of its alternative master's degree and licensure program in urban secondary teaching.
- The innovative field-based Master of Urban Secondary Teaching Program (MUST) is a 13-month selective graduate teacher education program that prepares secondary teachers who are committed to teaching mathematics, science, social studies, and English in urban schools.
- The School of Nursing has partnerships with the Cleveland Clinic Foundation and Lakeland Community College for the RN to BSN Completion Program. These unique partnerships afford RN professionals the opportunity to complete their bachelor's degree by taking nursing courses one day per week.
- The School of Nursing has community outreach activities with the Cleveland Foodbank, Trinity Cathedral and other area facilities meeting the health needs of those individuals living in poverty and provides opportunity for student to engage in service learning activities.
- The School of Nursing is the first state-funded institution in Ohio to offer a direct freshman entry program where students are admitted into the nursing program during their first year, ensuring their degree completion within a four-year time frame.
- The graduates of the BSN program have a State Licensure (NCLEX) passing rate higher than the national average.
- Ph.D. faculty in Urban Education collaborate with colleagues at Kent State, Youngstown State and Akron universities to provide doctoral-level preparation for school administrators.
- With active grants in excess of $12 million, the college has maintained its lead at CSU for attracting external funding to support centers of excellence in mathematics/science/technology, literacy, school leadership, urban education, and professional development. These centers along with approximately 50 partnerships provide opportunities for students to work with faculty on field-based research and collaborative initiatives with local schools, community agencies, arts organizations, and health care facilities. In other areas of scholarly productivity, faculty published eight books, 38 book chapters, and 95 journal articles in 2005-06.
- Since 2003, three education faculty members have received a Fulbright Scholar Award in recognition of their globally acknowledged accomplishments in teaching, research, and service. They are Dr. Ralph Mawdsley, Dr. Roland Pourdavood, and Dr. Lih-Ching Chen Wang.
- Plans are underway to construct a new, state-of-the-art building to house the College of Education & Human Services. This building is projected to open in 2009.
- The college has developed and implemented an electronic portfolio system to provide for continuous assessment and collection of performance data; the e-Portfolio Systems is also used by students to generate employment portfolios that showcase their work.
- The college has developed an upper-division program for honors students in education.

College of Liberal Arts and Social Sciences

- The college has over 160 faculty members in the arts, humanities, and social sciences; almost all hold a Ph.D., M.F.A., or other terminal degree in their field. Several faculty have been Fulbright, Guggenheim or Woodrow Wilson Fellows. As active researchers, CLASS faculty publish an average of 15 books and dozens of articles and book chapters each year.
- Faculty have received awards from the Council on Graduate Schools, the National Endowment for the Humanities, IREX, the U.S. Department of Education, the Ohio Arts Council, the Ohio Humanities Council, the Cleveland Arts Prize, the Rome Prize, and other external entities.
- The college is home or host to a number of research and cultural centers, including:

- *Art Gallery*: presents exhibitions of student and faculty art, and special exhibits of artists who are recognized internationally and nationally.
- *Black Studies Program*, which includes the Howard A. Mims African American Cultural Center and the Jazz Heritage Orchestra.
- *Bioethics Center*
  and certificate program, which maintains a collaboration with the Bio-Ethics Network of Ohio (BENO).
- *Butler Jones Lecture*
  each spring semester by an eminent sociologist. The lecture series also awards a scholarship each year to a continuing student in Sociology.
- *Center for Arts and Innovation* with foci on dance and movement, creative words and music, and creative thought.
- *Cleveland Contemporary Players*, a center dedicated to performance of new works by living composers.
- *The Cleveland Stater*: campus newspaper produced by journalism students in the School of Communication.
- *Communication Research Center*
  in the School of Communication, to serve area businesses and organizations, featuring focus groups and a computer-aided telephone interview (CATI) system.
- *Crooked River*: an electronic journal on social and urban history featuring articles by faculty, students, and professionals in Northeast Ohio.
- *Cultural Crossings* interdisciplinary lecture series: four lectures a year by nationally known scholars or artists.
- *Independent Film Program*: an adjunct to Film Studies in the School of Communication.
- *Indian Scholar Program*: sponsors a visiting scholar from India in alternate years.
- *K'inal Winik Cultural Center*
  for the study of Mayan culture: offers workshops and curricular materials for teachers.
- *Poetry Center*: nationally recognized press that publishes new books by poets.
- *Social History and the City* project in the History Department: includes a Web-based Ohio Local History Archive, *Crooked River* electronic journal, and the Thomas F. Campbell annual seminar on the city.
- *Sundown Jazz Series*: the longest-running jazz series in Cleveland.
- *Women's Comprehensive Program*, including the Re-Entry Women's Project and a major and minor in Women's Studies.

College of Science

- Over 30 undergraduate programs of study are available.
- 90 percent of the faculty hold a Ph.D. degree.
- Faculty are authors of internationally acclaimed textbooks and research papers, including the most successful physics textbook ever written.
- Faculty have received nationally competitive awards from the National Science Foundation, the National Institutes of Health, and the American Heart Association, among many others, for their innovative research. Faculty have also been awarded patents.
- Faculty members have been recognized as Fulbright and Carnegie Scholars.
- Students participate in research, study, and practice activities at Cleveland State, as well as at such institutions as the Cleveland Clinic's Lerner Research Institute; the Cuyahoga Valley National Park; and an array of local service, education, and health agencies.
- A 3 + 4 articulation agreement exists with the Ohio College of Podiatric Medicine. This program consists of three years of pre-professional study at Cleveland State, and for qualifying students, four years of study at Ohio College of Podiatric Medicine (OCPM) to receive a doctorate in Podiatric Medicine from OCPM. Students may apply for a B.S. in Biology or Health Sciences upon completion of required B.S. course work during their first year(s) of study at OCPM.
- Health Science, Speech and Hearing, and Psychology undergraduate programs prepare students excellently for entering highly reputable Cleveland State graduate programs. These graduate programs have an overall success rate of close to 100% of their students passing licensure examinations in Occupational Therapy, Physical Therapy, Speech and Hearing, and School Psychology.
- Evening majors are offered in Chemistry, Physics, and Psychology. Selected evening classes are also offered by other departments.
- Many co-op and internship opportunities are available.
- Undergraduate research opportunities with Cleveland State faculty are available.
- Most departments have an honors program.

Fenn College of Engineering

- Fenn Academy— This consortium between Fenn College of Engineering and a group of high schools and corporations will boost regional economic development and encourage ninth through 12th grade students to pursue careers in engineering and technology. The academy will provide educational activities, technical support and, when possible, financial means to students throughout their entire educational experience, starting in high school and progressing through their college years. The academy also will provide high school teachers with state-of-the-art technologies, training and access to laboratory facilities.

  Lakewood High School, the West Shore Career Technical District and Middough Consulting Inc. have signed on as

academy partners, with other schools and business expected to soon follow. Mr. Ron Ledin, Middough's president and CEO, is chairman of Fenn Academy's Oversight Board. He is a 1968 alumnus with a bachelor's degree in mechanical engineering. Dr. Bahman Ghorashi is the director of Fenn Academy.

Fenn Scholars, the students selected for the academy, will study a pre-engineering curriculum that will provide them with the academic and technical competencies required to be automatically admitted to the Fenn College of Engineering when they graduate from high school.

Fenn Academy's rigorous academic study, scholarships, co-op opportunities, internships and job-shadowing opportunities will produce a highly educated work force in such emerging fields as fuel cell and biomedical technologies. Fenn Academy will provide Northeast Ohio with engineering professionals who will be motivated to stay in the region when they graduate, providing the skills and knowledge to help area employers compete in the global market. The first class of students began studies in the Fenn Academy in Fall 2006.

- Cleveland State Named University Transportation Center (UTC) – Cleveland State's UTC will focus exclusively on the critical issue of work zone safety and has strong support from the Ohio Department of Transportation, industry organizations, general contractors, highway construction firms and unions.

  Housed in our Fenn College of Engineering, the UTC will be a key player in helping the heavy highway construction industry increase safety without sacrificing efficiency within construction work zones across the nation and will be a vital regional source of transportation engineering talent for the heavy highway industry.
- Dr. Charles Alexander, professor of Electrical and Computer Engineering, saw the second edition of his textbook *Fundamentals of Electric Circuits*, with co-author Matthew N.O. Sadiku, published by McGraw Hill in 2004. The text has been published in English, Korean, Chinese, Italian, Spanish, and Portuguese and has sold over 10,000 copies worldwide. It is intended for use in the introductory circuit analysis or circuit theory course taught in electrical engineering or electrical engineering technology programs.
- The Donald Bently and Agnes Muszynska Endowed Chair in Rotating Machinery was created with a $1 million gift from Dr. Donald E. Bently, P.E., a globally recognized authority on rotor dynamics and vibration monitoring and diagnostics, and Agnes Muszynska, Ph.D., an internationally renowned scientist in the area of machinery dynamics. The Bently and Muszynska Chair has been awarded to Dr. Jerzy T. Sawicki, professor of Mechanical Engineering.
- The Tesla Chair in Engineering has been created to support a faculty member with research expertise in the area of electromechanical energy conversion devices and rotating machines.
- The Center for Research in Electronics and Aerospace Technology (CREATE) has been established in the Fenn College of Engineering with a $2.4 million grant from the NASA Glenn Research Center . The center's mission is to create, sustain, and manage research programs in aerospace electric activities. Its technological focus will be in the areas of rotating machines, intelligent and autonomous systems, diagnostic and prognostic health monitoring, and modular power components.
- The course *Introduction to Engineering Design* has been added to the freshman-year engineering curriculum. In this course students learn and apply through hands-on activities some of the skills that are integral to being successful engineers, such as the use of creativity to solve open-ended problems, the engineering design process, the use of tools and instrumentation, and principles of operation of basic electrical and mechanical devices.
- A new center has been established at Cleveland State under the sponsorship of the National Institutes of Health (NIH). The Center for Modeling Integrated Metabolic Systems (MIMS) combines resources from **Case Western Reserve University**, **Cleveland State University**, and **University Hospitals of Cleveland**. This center is led by an interdisciplinary team of engineers, medical doctors, and biologists; it combines mathematical modeling, computer simulation, and *in-vivo*
  experimentation to quantify relationships between cellular metabolism and physiological responses of tissue-organ systems and the whole body. Primary emphasis is given to modeling cellular metabolism in four major tissue-organ systems: skeletal muscle, brain, heart, and liver. Such models allow quantitative evaluation of metabolic pathways and regulatory mechanisms under normal and abnormal conditions as well as disease states. Details and more information can be found at **http://www.csuohio.edu/mims/**
- Dr. Bahman Ghorashi, interim dean of Engineering, has recently published a book to help students succeed in life. As a scientist and faculty member, Professor Ghorashi spends much of his time researching and teaching such topics as laser anemometry, agile manufacturing and fluid mechanics. But as an individual who is passionate about helping young people succeed in life, he's written a self-help book that he hopes will become a must-read for teens and young adults. *How to Become an Exceptionally Successful Young Person: A Guide to Early Planning and a Roadmap to Success PLUS How to Face Worry, Defeat, and Uncertainty and Rise Above Them All* was published by Universe Inc. in Fall 2004. Visit **http://www.csuohio.edu/chemical_engineering/news/articles/gh_book.htm** for more details.
- PPG Industries awards $5.8 million in patents to Cleveland State University. PPG and CSU's collaboration in engineering technology afford unique research and learning opportunities for Cleveland State faculty and students. PPG's donation includes more that 19 U.S. and worldwide patents and know-how related to the highly regarded "P10"process. This technology, developed over the past two decades, has demonstrated superior, energy-efficient glass processing that can be applied to all glass products including glass fiber, containers, and tableware and has potential impact on a wide range of products and processes beyond the glass industry. The innovative science behind the donated technology has the potential to transform the glass industry dramatically by reducing the energy consumed in forming glass into products and revitalizing the U.S. , and particularly Ohio 's, glass industry, which provides jobs for over 10,000 highly trained employees and contributes over $7 billion in sales annually. Visit **http://www.csuohio.edu/chemical_engineering/news/articles/glassresearch.htm** for more details.
- Wright Center: A 33-member partnership – led by Cleveland State University – has been awarded $23 million from the state of Ohio's Third Frontier program to establish a Wright Center of Innovation for Ohio on Cleveland State's downtown campus. Gov. Bob Taft announced the award at a standing-room-only news conference on the Cleveland State campus. The Wright Center for Sensor Systems Engineering (WCSSE) – a statewide network of industry, higher education, and government agencies – will provide over $51 million in matching funds to augment the $23.8

million seed grant to operate a "one-stop shop" for industry working on integrating sensor systems into their products. In a highly competitive bidding process, Cleveland State partnered with 32 academic, corporate, nonprofit and government collaborators to make its case for the coveted center.

Cleveland-Marshall College of Law

- Founded 1897
- The first law school in Ohio to admit women
- One of the first law schools in Ohio to admit minorities
- Accredited by the American Bar Association since 1957
- Member of the Association of American Law Schools since 1970
- Fifty full-time faculty, including legal writing and clinical professors
- Three named professorships, including the Leon M. and Gloria Plevin Endowed Professorship, the Charles R. Emrick Jr. – Calfee, Halter & Griswold Endowed Professorship, and the James A. Thomas Distinguished Professorship
- The Joseph C. Hostetler – Baker & Hostetler Visiting Scholar
- Two student-edited journals: *The Cleveland State Law Review* and *The Journal of Law and Health*
- ABA prize-winning student newspaper: *The Gavel*
- Five clinics: Employment Law Clinic, Environmental Law Clinic, Fair Housing Clinic, Law & Public Policy Clinic, Urban Development Law Clinic
- Full- and part-time degree programs leading to J.D. and LL.M. degrees; joint degree programs leading to J.D./M.B.A., J.D./M.P.A., J.D./M.A.E.S., J.D./M.S.E.S., and J.D./M.U.P.D.D.
- Concentrations in Business Law, Civil Litigation and Dispute Resolution, Criminal Law, Employment and Labor Law, and Tax
- Externships including state and federal Judicial Externships, U.S. Attorney Externship, Public Interest Externships, and student-designed Independent Externships.
- Summer Institute for Law Students in St. Petersburg, Russia
- Lecture series including the Cleveland-Marshall Fund Visiting Scholars Program, the Criminal Justice Forum, the Employment and Labor Law Speakers Series, the Forrest B. Weinberg Memorial Lecture Series, and the Baker-Hostetler Visiting Scholar Lectures
- Pro Bono and Community Service Programs
- State-of-the-art Law Library, housing the state's second largest law collection
- Nine "high-tech"classrooms, including the Joseph W. Bartunek III Moot Court Room
- Over 20 student organizations, serving the interests of a diverse and engaged student body

Maxine Goodman Levin College of Urban Affairs

- Ranked among the Top 10 urban affairs schools in the United States
- *U.S. News and World Report*'s 2005 edition of "America's Best Graduate Schools" ranks the MPA program specialty, city management and urban policy, second in the nation.
- Master of Public Administration program accredited by the National Association of Schools of Public Affairs and Administration (NASPAA)
- Master of Urban Planning, Design, and Development (MUPDD) program accredited by the Planning Accreditation Board
- Graduate degree programs leading to M.A. in Environmental Studies; Master of Public Administration (MPA); Master of Science in Urban Studies; Master of Urban Planning, Design, and Development (MUPDD); Ph.D. in Urban Studies and Public Affairs; and dual degrees offered in conjunction with the Law College: JD/MPA, JD/MAES, and JD/MUPDD
- Bachelor's degree programs in urban studies, urban services administration, public safety management, and environmental studies offered for day, evening, and weekend students
- Glickman-Miller Hall, completed in 2000, is home to the college. The building includes a beautiful, spacious atrium, classrooms and seminar rooms, a distance-learning room, computer labs, and an interactive media lab.
- The Levin College Forum is both a physical space in the building and, through state-of-the-art technology, a virtual meeting place equipped with the capacity for broadcast television, satellite, and two-way interactive programs. It is the venue of choice for state and local government and professional meetings and a focal point and catalyst for thoughtful public debate, innovative thinking, and timely action addressing the critical urban issues that affect Northeast Ohio, the state, and the nation.
- Outstanding faculty and research staff with a national reputation for scholarship and practitioner-based experience
- Research services and centers include: Center for Civic Education, Center for Economic Development, Center for Election Integrity, Center for Housing Research & Policy, Center for Leadership Development, Center for Neighborhood Development, Center for Nonprofit Policy & Practice, Center for Planning Research & Practice, Center for Public Management, Center for Sacred Landmarks, Great Lakes Environmental Finance Center (GLEFC), Northern Ohio Data & Information Service (NODIS), Ohio Center for the Advancement of Women in Public Service, Ruth Ratner Miller Center for Greater Cleveland's Future, Unger International Center for Local Government Leadership, and the Urban Child Research Center
- The Thomas F. Campbell, Ph.D. Exhibition Gallery houses special exhibits prepared by the college to complement special forum programs.
- Student service-oriented college offering assistance with scheduling, internship placement, postgraduate internship placement, and career planning

- Offers Cleveland State’s only credit-for-life-experience program in its Bachelor of Arts degree

Academic Calendar

Fall Semester	2004	2005	2006	2007
First Saturday Class begins	Aug 28	Aug 27	Aug 26	Aug 25
First Weekday Class begins	Aug 30	Aug 29	Aug 28	Aug 27
Last Day to Add	Sep 3	Sep 2	Sep 1	Aug 31
Labor Day	Sep 6	Sep 5	Sep 4	Sep 3
Last Day to Drop	Sep 10	Sep 9	Sep 8	Sep 7
Columbus Day	Oct 11	Oct 10	Oct 9	Oct 8
Last Day to Withdraw	Nov 5	Nov 4	Nov 3	Nov 2
Veterans Day	Nov 11	Nov 11	Nov 10	Nov 12
Thanksgiving Recess	Nov 25-28	Nov 24-27	Nov 23-26	Nov 22-25
Last Day of Classes	Dec 11	Dec 9	Dec 8	Dec 7
Final Exams	Dec 13-18	Dec 12-17	Dec 11-16	Dec 10-15
COMMENCEMENT	Dec 19	Dec 18	Dec 17	Dec 16
Fall Incomplete Deadline	May 6	May 5	May 4	May 2

Spring Semester	2005	2006	2007	2008
First Saturday Class begins	Jan 15	Jan 14	Jan 13	Jan 12
Martin Luther King Day	Jan 17	Jan 16	Jan 15	Jan 21
First Weekday Class	Jan 18	Jan 17	Jan 16	Jan 14
Last Day to Add	Jan 21	Jan 20	Jan 19	Jan 18
Last Day to Drop	Jan 28	Jan 27	Jan 26	Jan 25
President's Day	Feb 21	Feb 20	Feb 19	Feb 18
Spring Recess	Mar 13-20	Mar 12-19	Mar 11-18	Mar 9-16
Classes Resume	Mar 21	Mar 20	Mar 19	Mar 17
Last Day to Withdraw	Apr 1	Mar 31	Mar 30	Mar 28
Last Day of Classes	May 6	May 5	May 4	May 2
Final Exams	May 7-13	May 6-12	May 5-11	May 3-9
COMMENCEMENT	May 14	May 13	May 12	May 10
Spring Incomplete Deadline	Sept 23	Sept 22	Sept 21	Sept 19

Summer Semester	2005	2006	2007	2008
First Saturday	May 21	May 20	May 19	May 17
First Six-Week Summer Session				
Classes Begin	May 21	May 20	May 19	May 17
Last Day of Classes	July 1	June 30	June 29	June 27
Final Exams - Held on the last scheduled meeting day for the course unless otherwise noted by the instructor				
Second Six-Week Summer Session				
Classes Begin	July 5	July 3	July 2	June 30
Last Day of Classes	Aug 12	Aug 11	Aug 10	Aug 8
Final Exams - Held on the last scheduled meeting day for the course unless otherwise noted by the instructor				
Eight Week-Summer Session				
Classes Begin	May 21	May 20	May 19	May 17

Last Day of Classes	July 15	July 14	July 13	July 11
Final Exams - Held on the last scheduled meeting day for the course unless otherwise noted by the instructor				
Ten-Week Summer Session				
Classes Begin	May 21	May 20	May 19	May 17
Last Day of Classes	July 29	July 28	July 27	July 25
Final Exams - Held on the last scheduled meeting day for the course unless otherwise noted by the instructor				
Twelve-Week Summer Session				
Classes Begin	May 21	May 20	May 19	May 17
Last Day of Classes	Aug 12	Aug 11	Aug 10	Aug 8
Final Exams - Held on the last scheduled meeting day for the course unless otherwise noted by the instructor				
Summer Incomplete Deadline	Dec 9	Dec 8	Dec 7	Dec 6

Specific course begin and end dates are available through CampusNet in the term in which they are offered.

Beginning Summer 2005, courses that contain begin and end dates that do not fit in traditional sessions may also be scheduled in an alternative session indicated by ALT in CampusNet. Add/drop/withdrawal deadlines for courses scheduled in an alternative session (ALT) are adjusted accordingly for the length of the session.

Academic Calendar dates are subject to change. Please consult CampusNet for specific course's begin and end dates.

About the University

On this page:

- **Back to General Information**
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- **Eight Colleges**
- **University Studies**
- **Dynamic Campus Environment**
- **Campus411**
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Introduction

Established as a state-assisted university in 1964, Cleveland State University assumed a tradition for excellence when it adopted the buildings, faculty, staff, and programs of Fenn College, a private institution of 2,500 students. In 1969, the Cleveland-Marshall College of Law became part of Cleveland State University.

A young university with a rich history, Cleveland State traces its historical roots to 1870, when the Cleveland YMCA began to offer free classes. The YMCA program was formalized in 1881, reorganized in 1906 as the Association Institute, and became the Cleveland School of Technology, later renamed Fenn College. The Cleveland-Marshall College of Law traces its origins to the founding of Cleveland Law School in 1897 as the first evening law school in the state and one of the first to admit women and minorities. In 1946, Cleveland Law School merged with the John Marshall School of Law, founded in 1916, to become Cleveland-Marshall Law School.

Throughout its long history, Cleveland State University and its predecessors pioneered work in developing student internships with business and industry, expanding an extensive co-op program, and attracting students who did not otherwise have access to higher education. Today, Cleveland State continues to grow by supporting the flexibility of its course offerings, programs, and affordable price with an excellent faculty and state-of-the-art facilities.

Eight Colleges

Courses of instruction leading to degrees are offered through Cleveland State's eight colleges. Undergraduate students enroll in one of the six undergraduate colleges:

- Nance College of Business Administration
  - **Go to college Web site**
  - **Go to college catalog section**
- College of Education and Human Services
  - **Go to college Web site**
  - **Go to college catalog section**
- Fenn College of Engineering
  - **Go to college Web site**
  - **Go to college catalog section**
- College of Liberal Arts and Social Sciences
  - **Go to college Web site**
  - **Go to college catalog section**
- College of Science
  - **Go to college Web site**
  - **Go to college catalog section**
- Maxine Goodman Levin College of Urban Affairs
  - **Go to college Web site**
  - **Go to college catalog section**

Many degrees are available from these colleges in the evening.

University Studies provides comprehensive support services to provisionally admitted undergraduate students.

Other programs available to undergraduates include: Black Studies, a selection of courses, available in various departments, which explores the black experience in America; and the Women's Comprehensive Program, which offers special programming and counseling as well as course work.

Graduate work is offered through the **College of Graduate Studies** and the **Cleveland-Marshall College of Law**.

University Studies

University Studies is the entry point for all provisionally admitted undergraduate students. University Studies enhances students' success by providing comprehensive support services that assist students in achieving their academic and career goals.

The mission of University Studies is to support all provisionally admitted students through an active collaboration with other university departments and programs. University Studies is committed to providing outstanding service to the campus community, and to facilitating student success by providing the resources and promoting the intellectual development necessary for academic achievement

A Dynamic Campus Environment

The Cleveland State campus consists of 85 acres--the largest footprint in downtown Cleveland--with 40 buildings used for teaching, research, housing, administration, and recreation. Nineteen-story Rhodes Tower contains the University Library, classrooms, and many faculty offices and is a striking feature on the Cleveland skyline. University buildings feature a blend of old and new architectural styles, with historic landmark Mather Mansion sharing the stage with such modern facilities as Glickman-Miller Hall, home of the Maxine Goodman Levin College of Urban Affairs, and the 13,000-seat Bert L. and Iris S. Wolstein Center. The university boasts more than 100 student organizations, including 13 national fraternities and sororities and 17 NCAA Division I men’s and women’s varsity sports.

For Northeast Ohio to be economically competitive, it needs an educated work force. To make that education more convenient than ever before, Cleveland State has extended campuses in Westlake and Solon, where students have access to the same quality education as they have downtown.

The university is in the process of implementing a $179 million campus master plan, "Building Blocks for the Future," which includes a 130,000-square-foot recreation center; renovation of historic Howe Mansion into Parker Hannifin Hall, a new home for the College of Graduate Studies; a new Parker Hannifin Administration Center; conversion of landmark Fenn Tower into student housing for 400-450 students; and retail outlets, green spaces and parking garages. Not only is the master plan changing the face of the university’s campus, it is creating vibrant interaction with the surrounding community and a new neighborhood in downtown Cleveland.

Campus411

Campus411 is the place to go for information and assistance with registration, academic records, student billing, and financial aid. Cleveland State’s comprehensive approach to providing student service is based on a "one-stop" philosophy: provide a central office to serve the university community effectively and efficiently. Campus411 is located on the first floor of the University Center in Suite 162. If you have questions or concerns or if you need information about student services, please visit Campus411.

About the University

Accreditations

NCA Accreditation: Cleveland State University is accredited by The Higher Learning Commission, a commission of the North Central Association of Colleges and Schools (NCA).

North Central Association of Colleges and Schools, Commission on Institutions of Higher Education, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504, (800) 621-7440.

In addition, individual Cleveland State degree programs hold the following professional accreditations:

Business Administration: The B.B.A., M.B.A. and D.B.A. programs of the Nance College of Business Administration are accredited by AACSB International, the Association to Advance Collegiate Schools of Business. In a separate accrediting process, the undergraduate and graduate programs in accounting are accredited by the AACSB.

Chemistry: The Chemistry Department's undergraduate curriculum is approved by the American Chemical Society. Its Clinical Chemistry Ph.D. program is accredited by the Commission on Accreditation in Clinical Chemistry (ComACC).

Counseling Center: The Counseling Center is accredited by the International Association of Counseling Services (IACS).

Education: Preparation programs offered by the College of Education and Human Services for prospective teachers and other school personnel are fully accredited by the National Council for the Accreditation of Teacher Education (NCATE) and approved by the Ohio Department of Education. The School Counseling and the Community Agency Counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The Psychology Specialist (School Psychology) program is approved by the National Association of School Psychologists (NASP) and is included in the College's NCATE Accreditation.

Engineering: The bachelor's degree programs in Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. The Bachelor of Science in Electronics Engineering Technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Health and Wellness Service: The Health and Wellness Service is accredited by the Accreditation Association for Ambulatory Health Care.

Law: The College of Law is accredited by the American Bar Association and is a member of the Association of American Law Schools.

Music: The graduate and undergraduate Music Department curricula are accredited by the National Association of Schools of Music.

Nursing: The Undergraduate and Graduate Nursing curricula are fully accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, D.C. 20036, Phone: (202) 887-6791. The Undergraduate Nursing curriculum has been fully approved by the Ohio Board of Nursing .

Occupational Therapy: The Master of Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education.

Physical Therapy: The Master of Physical Therapy program is accredited by the Commission on Accreditation in Physical Therapy Education.

Psychology: The Psychology Specialist (School Psychology) program is approved by the National Association of School Psychologists (NASP) and the National Council for the Accreditation of Teacher Education (NCATE).

Public Administration: The Master of Public Administration curriculum is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA).

Public Health: The Master of Public Health program is accredited by the Council on Education for Public Health (CEPH).

Social Work: The School of Social Work curriculum is fully accredited at the undergraduate and graduate levels by the Council on Social Work Education (CSWE).

Speech and Hearing: The academic and clinical program in Speech-Language Pathology is accredited by the American Speech-Language and Hearing Association (ASHA). The graduate academic program is accredited by the ASHA Council on Academic Accreditation (CAA), and the clinical program is accredited by the Professional Services Board (PSB).

Urban Planning, Design, and Development: The Master of Urban Planning, Design, and Development curriculum is accredited by the Planning Accreditation Board.

Office of Diversity and Multicultural Affairs

- **Go to Office of Diversity and Multicultural Affairs Web site**

Cleveland State University is a leader in the state in enrolling and graduating minorities and has been recognized nationally in the Top 100. In Spring 2006, 23.6 percent of undergraduate students were minorities. In 2005, 21.2 percent of full-time faculty were minorities. In

addition, Cleveland State is noted locally for its multicultural initiatives, including more than 100 courses with a cultural/ethnic focus.

The Office of Diversity and Multicultural Affairs has university-wide responsibility to advance diversity, equal opportunity and positive race and community relations. This includes: ensuring the retention of underrepresented racial and ethnic minorities among students, faculty, staff, and administrators; changing the campus environment through educational experiences that achieve and maintain positive race and human relations; and enriching the urban community environment through outreach and service to minority communities. Program initiatives focus on retention of minority students, faculty, and staff; faculty, staff, and student development activities; development, implementation, monitoring, and support of academic and non-academic diversity initiatives; working with faculty, students, and staff to identify and respond to issues and concerns related to minority groups; development and implementation of policies, procedures, priorities, and programs to better serve the diverse university community; outreach to, and collaboration with, the public and private sectors and other educational institutions; and service to the urban and multicultural communities.

Regular activities include campus climate and retention research, diversity training and multicultural programming such as Hispanic Awareness Week, the annual Diversity Conference, Urban Community Forum and Hispanic Community Forum. The office is administratively responsible for the STARS (Student Achievement in Research and Scholarship) and Upward Bound programs and the AHANA (**A**frican American, **H**ispanic American, **A**sian American and **N**ative **A**merican) Peer Mentoring Program.

The Office of Diversity and Multicultural Affairs is located in University Center, Room 535, and may be reached by calling (216) 687-9394.

Affirmative Action Office

- **Go to the Affirmative Action Office Web site**

Cleveland State University is committed to the principles of equal employment and educational opportunity for all individuals and to the development and implementation of results-oriented procedures and programs to enhance access and opportunity for minorities and women, persons with disabilities, disabled veterans, Vietnam-era veterans and other protected veterans. The Board of Trustees has charged everyone associated with the university to support and implement these procedures and programs and to participate in achieving their maximum success.

The Affirmative Action Office is responsible for the administration of the university's equal opportunity and affirmative action policies and procedures. Through formal and informal procedures, the Affirmative Action Office is primarily responsible for the investigation and resolution of all complaints of unlawful discrimination including complaints of sexual, racial and any other types of unlawful harassment. The Affirmative Action Office seeks to achieve a fair and prompt resolution of discrimination complaints and takes appropriate action when necessary. The Affirmative Action Office works cooperatively with departments and units to provide training and information on unlawful discrimination and affirmative action issues to increase awareness of these issues throughout the university community and promote the full participation, well-being and equitable treatment of all students, faculty and staff, regardless of age, race, color, religion, national origin, ancestry, sex, sexual orientation, disability, disabled veteran, Vietnam-era veteran or other protected veteran status.

Maria J. Codinach, J.D., is presently serving as the director of the Affirmative Action Office. The office is located in the Administration Center, Room 236. Phone (216) 687-2223.

University Ombudsperson

The University Ombudsperson has the official role of protecting the interests and rights of all members of the Cleveland State University community by being an impartial, trustworthy person to oversee conflict-resolution procedures and assure due process for all parties involved in a conflict. The ombudsperson strives to achieve informal resolutions of disputes; provides informal, confidential mediation; advises complainants of their rights; identifies the correct bodies to which petitions and requests should be addressed; helps complainants prepare supporting paperwork in clear and concise form; and offers an avenue through which persons with grievances can express their concerns and develop a constructive perspective on their situation.

A major goal of the ombudsperson is to serve as a reliable, comprehensive source of information about university rules and procedures at all levels in order to assure that all members of the institution have full knowledge of, and access to, all appropriate conflict-resolution processes. Achieving informal resolutions depends substantially on aiding disputants to appreciate the various factors that affect their situation and to understand the options available to them.

The ombudsperson maintains strict confidentiality regarding all interactions related to the role. The parties involved in a dispute are assured that all disclosures to the ombudsperson are confidential and that they retain control over information shared with the ombudsperson as well as actions taken by the ombudsperson on their behalf. Neither party is obligated to accept either in full or in part the recommendations of the ombudsperson; the parties always retain the right to pursue other options.

The ombudsperson's purpose is to protect the rights of the individuals on both sides of the conflict and help them acquire the full benefit of due process; it is not the purpose of the office to initiate actions to achieve institutional ends. The ombudsperson strives to maintain an atmosphere of fairness and due process for all parties and to promote an environment conducive to learning, reasoned discourse, and mutually acceptable conflict resolution.

Dr. Richard F. Rakos, professor of Psychology, is presently serving as the ombudsperson. His office is located in the Chester Building, Room CB 156, in the Department of Psychology. Phone: (216) 687-5320. E-mail: **r.rakos@csuohio.edu**.

About the University

Alumni

- **Go to Cleveland State University Alumni Association Web site**

The university has more than 90,000 alumni, most of whom have remained in the Northeast Ohio area to establish careers, give back to the community, and raise their families. Recent research shows that at nearly 1,000 businesses across the country, a Cleveland State graduate is at the helm as founder, chairman, CEO, president, or other top executive.

Graduates of Cleveland State University and its predecessor institutions are represented by the Cleveland State University Alumni Association and its chapters.

The Department of Alumni Affairs works closely with the Alumni Association to jointly develop professional, social, and educational programming that benefits the alumni body as well as the university community. The university magazine, *Perspective*, is published two times a year.

The goal of the alumni office is to generate alumni participation and support in the continuing development of the university. Phone: (216) 687-2078.

CSU Foundation, Inc.

The Cleveland State University Foundation Inc. is a private, nonprofit corporation created in 1969 to serve as an independent, tax-exempt organization to solicit, receive, and distribute gifts to the university in accordance with the wishes of the donors.

There is extensive coordination of efforts between the foundation and the **Department of Development** on fundraising. The two are working cooperatively on the university's initiatives to raise endowment and current use funds.

University fundraising efforts are now providing approximately $7 million each year in private support for scholarship assistance, research, equipment, educational programs, and facilities.

Gifts to the foundation are tax-deductible within IRS guidelines. Donors have the option of making gifts that are restricted to a specific purpose, or unrestricted. All restricted gifts are used in accordance with the donors' wishes, and unrestricted gifts are used where the need is greatest. Phone: (216) 687-5522.

Information Services and Technology

- **Go to Information Services and Technology Web site**

Information Services and Technology (IS&T) is maintained by the university as an educational and research facility for its faculty, research staff, and students; additionally, it supports the data processing requirements of the administrative offices at Cleveland State University.

IS&T provides and maintains the university computing, network, telecommunications, and duplicating services for the campus community.

Academic Assessment

Each program on campus assesses student learning outcomes in order to improve student learning, instruction, and curriculum design. Cleveland State University’s scope of academic assessment is coordinated by the Office of Assessment and includes learning within the major, general education, and student service programs. Systematic assessment of student learning incorporates the evaluation of papers, projects, portfolios, pre- and post- tests, licensure and other examinations in order to determine whether the university’s expectations and goals for learning are being achieved. Current and former students’ views about the learning process are also solicited through questionnaires, interviews and focus groups. Feedback from students is continually used to improve academic and non-academic programs.

Smoke-Free Environment

In 1993, on the recommendation of the Faculty Senate, the Cleveland State University Board of Trustees adopted the University's Smoke-Free Environment Policy. The policy prohibits smoking inside all university buildings except for certain private rooms in Viking Hall and Fenn Tower. The initiative for this policy came from within the Cleveland State community and enjoys wide support from students, faculty, staff, and administrators.

Further, the university is in the process of taking appropriate actions to ensure compliance with Chapter 3794 of the Ohio Revised Code, adopted by Ohio voters in November 2006, which further restricts smoking in public areas.

Nondiscrimination Policy and Procedure

A. Cleveland State University is an Affirmative Action/Equal Opportunity institution. No person will be denied opportunity for employment or education or be subject to discrimination in any project, program or activity because of race, color, religion, sex, sexual orientation, national origin, age, handicap or disability, disabled veteran, Vietnam-era veteran or other protected veteran status.

B.

Inquiries concerning implementation of the above policy and compliance with relevant statutory requirements, including, inter alia, Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 may be directed to Maria J. Codinach, director of the Affirmative Action Office, Administration Center, Room 236, (216) 687-2223.

C. Students who wish to seek accommodations under Section 504 of the Rehabilitation Act of 1973 and/or the Americans with Disabilities Act of 1990 must request such accommodations and should contact either the Office of Admissions or the Office of Disability Services, University Center Room 304, (216) 687-2015, for information or to request accommodations.

D.

Complaints of discrimination may be addressed through the Affirmative Action Office and the Student Grievance Procedure outlined in the Cleveland State University Student Handbook, copies of which are available through the university's Department of Student Life, University Center 102, (216) 687-2048.

N

Degree Programs

- **Back to General Information**
- **Undergraduate Degrees**
    - **Nance College of Business Administration**
    - **College of Education and Human Services**
    - **Fenn College of Engineering**
    - **College of Liberal Arts and Social Sciences**
    - **College of Science**
    - **Maxine Goodman College of Urban Affairs**
- **Graduate Degrees**

Undergraduate Degrees

Nance College of Business Administration

Bachelor of Business Administration (B.B.A.). Specialization is available in the following majors:

- **Accounting**
  BBA Tracks: Public Accounting, Management Accounting, Governmental or Institutional Accounting, Internal Auditing
- **Business Administration**
- **Business Economics**
- **Finance**
  Areas of Specialization: Investment Management, Management of Financial Institutions, Real Estate, Financial Management
- **Information Systems**
- **International Business**
- **Management and Labor Relations**
  BBA Tracks: General Management, Human Resource Management
- **Marketing**:
  BBA Tracks: Sales Management, Consumer Marketing, Business-to-Business Marketing, International Marketing
  Certificates: Multimedia Advertising; Arts Management
- **Operations Management and Business Statistics**
  BBA Tracks: Operations Management, Business Statistics
  Certificates: Arts Management, Business Biotechnology

Bachelor of Science in Computer and Information Science (B.S.C.I.S.). Specialization is available in two tracks of the CIS major:

- **Computer and Information Science (CIS) Track**
  Concentration Areas: many related fields, typically Business (see majors above), Electrical Engineering, Electronic Technology, Mathematics, Natural Sciences
- **Computer Science (CSC) Track**
  Concentration Areas: many related fields, typically Business (see majors above), Electrical Engineering, Electronic Technology, Mathematics, Natural Sciences

Courses in the BBA and BSCIS degrees are offered during the day and evenings at the Downtown Campus and at selected times and days at CSU's extended campuses in Westlake and Solon. A BBA degree completion program is also offered at the campus of Lakeland Community College in Lake County.

College of Education and Human Services

Bachelor of Science in Education, including major programs in the following fields:

- **Early Childhood Education**
- **Middle Childhood Education**
  Discipline-Specific Preparation in at least two of the following Teaching Fields: reading and language arts, mathematics, science, social studies
- **Physical Education and Sport**
    - **Multi-Age Teaching Licensure**
    - **Allied Sport Professions**
      Specialties: Exercise/Fitness Specialist, Sport Manager
- **Special Education**
  Intervention Specialists:
    - **Mild/Moderate Educational Needs**;
    - **Moderate/Intensive Educational Needs**

Teaching Licensure for majors in the College of Science or the College of Liberal Arts and Social Sciences

- ***Secondary Licensure**:*

    - Single Field Sciences
      Chemistry, Earth Science, Life Sciences, Physics
    - Dual Field Physical Sciences
      Concentrations: Chemistry, Physics
    - Integrated Science
      Majors: Biology, Chemistry, Geology , Physics
    - Integrated Mathematics
    - Integrated Language Arts
    - Integrated Social Studies
- ***Multi-Age Licensure**:*
    - Foreign Languages
      French, Spanish
    - Health Education (as a second teaching field)
    - Music Education
    - Physical Education
    - Visual Arts Education

Upper Division Honors Program - Teaching Licensure
Post-Baccalaureate Teaching Licensure

- ***Early Childhood***
- ***Middle Childhood***
- ***Adolescent/Young Adult or Multi-Age***

Endorsement Programs for Practicing Teachers

- **Teaching English to Speakers of Other Languages**

Certificate: TESOL
Bachelor of Science in Nursing

Fenn College of Engineering

- **Bachelor of Chemical Engineering**
- **Bachelor of Civil Engineering**
- **Bachelor of Computer Engineering**
- **Bachelor of Electrical Engineering**
- **Bachelor of Industrial Engineering**
- **Bachelor of Mechanical Engineering** *(available in the evening)*
- **Bachelor of Science in Electronic Engineering Technology** *(available in the evening)*
- **Bachelor of Science in Mechanical Engineering Technology** *(available in the evening)*

College of Liberal Arts and Social Sciences

Bachelor's degrees are awarded in major programs, including the following fields:

- Bachelor of Arts:
    - **Anthropology**
    - **Art**
    - **Classical and Medieval Studies**
    - **Communication** *(available in the evening)*
    - **Communication Management**
    - **Criminology**
    - **Dramatic Arts**
    - **Economics**
    - **English** *(available in the evening)*
    - **Film and Digital Media**
    - **French**
    - **German** (suspended; minor is available)
    - **History** *(available in the evening)*
    - **International Relations**
    - **Journalism and Promotional Communication**
    - **Liberal Studies**
    - **Linguistics**
    - **Music**
    - **Philosophy**

    - **Political Science** *(available in the evening)*
    - **Religious Studies**
    - **Social Science**
    - **Social Studies**
    - **Sociology**
    - **Spanish**
    - **Women's Studies**
- **Bachelor of Music**
- **Bachelor of Social Work**

College of Science

Bachelor of Science, including daytime major programs offered in the following fields:

- **Biology**
- **Biology - Medical Technology**
- **Biology (B.S.)./Podiatric Medicine (Doctorate)** *with Ohio College of Podiatric Medicine*
- **Chemistry**
- **Environmental Science**
- **Geological Sciences**
- **Health Sciences**
- **Health Sciences (B.S.)/Podiatric Medicine (Doctorate)** *with Ohio College of Podiatric Medicine*
- **Mathematics**
- **Physics** *(evening degree also available)*

Bachelor of Arts, including major programs offered during the day in the following fields:

- **Geological Sciences**
- **Mathematics**
- **Physics** *(evening degree also available)*
- **Psychology** *(evening degree also available)*
- **Speech and Hearing**

Maxine Goodman Levin College of Urban Affairs

Bachelor of Arts including major programs in the following fields:

- **Environmental Studies** *(available in the evening)*
- **Public Safety Management** *(available in the evening)*
- **Urban Services Administration** *(available in the evening)*
- **Urban Studies** *(available in the evening)*

Graduate Degrees

The programs of the College of Graduate Studies and the Cleveland-Marshall College of Law are described in detail in separate catalogs which may be obtained from the offices of the respective deans and at the addresses below.

- **Click here to go to the Graduate Catalog**
- **Click here to go to the Cleveland-Marshall College of Law Web site**

College of Graduate Studies

Most Cleveland State University graduate programs are offered during afternoon and evening hours.

- **Go to College of Graduate Studies Web site**

Master's degree programs are offered as follows:

- **For more information, click here to go to the Graduate Catalog**

- Master of Accountancy
- Master of Applied Communication Theory and Methodology
- Master of Arts in Economics
- Master of Arts in English
- Master of Arts in Environmental Studies
- Master of Arts in History
- Master of Arts in Mathematics
- Master of Arts in Philosophy

- Master of Arts in Psychology
- Master of Arts in Sociology
- Master of Arts in Spanish
- Master of Arts in Speech Pathology and Audiology
- Master of Business Administration
- Master of Computer and Information Science
- Master of Education
- Master of Fine Arts in Creative Writing
- Master of Labor Relations and Human Resources
- Master of Music
- Master of Occupational Therapy
- Master of Physical Therapy
- Master of Public Administration
- Master of Public Health
- Master of Social Work
- Master of Science in Biology
- Master of Science in Chemical Engineering
- Master of Science in Chemistry
- Master of Science in Civil Engineering
- Master of Science in Electrical Engineering
- Master of Science in Engineering Mechanics
- Master of Science in Environmental Engineering
- Master of Science in Environmental Science
- Master of Science in Health Sciences
- Master of Science in Industrial Engineering
- Master of Science in Mathematics
- Master of Science in Mechanical Engineering
- Master of Science in Nursing
- Master of Science in Physics
- Master of Science in Software Engineering
- Master of Science in Urban Studies
- Master of Urban Planning, Design and Development

Graduate Specialists degrees are offered in educational administration, counseling and pupil personnel administration, and school psychology.

Doctoral degrees are offered in the following areas:

- Doctor of Business Administration
- Doctor of Engineering
- Doctor of Philosophy in Regulatory Biology
- Doctor of Philosophy in Clinical-Bioanalytical Chemistry
- Doctor of Philosophy in Urban Education
- Doctor of Philosophy in Urban Studies and Public Affairs

Dual degrees are offered for combined curriculum as follows:

- Juris Doctor/Master of Science in Environmental Science
- Juris Doctor/Master of Arts in Environmental Studies
- Juris Doctor/Master of Business
- Juris Doctor/Master of Public Administration
- Juris Doctor/Master of Urban Planning, Design, and Development
- Master of Science in Nursing/Master of Business Administration

Graduate Certificate Programs:

- **Adult Learning and Development**
- **Advanced Study in Bioethics**
- **Culture, Communication, and Health Care**
- **Data-Driven Marketing Planning**
- **Gerontological Studies**
- Healthcare Informatics
- **Local/Urban Management**
- **Middle Childhood Mathematics Education**
- **Middle Childhood Science Education**

- **Nonprofit Management**
- **Nursing Education**
- **Occupational and Physical Therapy in the Schools**
- **Research Administration**
- **Software Engineering**
- **Teaching English to Speakers of Other Languages (TESOL)**
- **Urban Economic Development**
- **Urban Geographic Information Systems**
- **Urban Real Estate Development and Finance**

Cleveland-Marshall College of Law

The College of Law confers the following degrees:

- Juris Doctor (JD),
- Master of Laws (LLM),
- Law and Master of Business with the Nance College of Business (JD/MBA),
- Law and Master of Public Administration with the Levin College of Urban Affairs (JD/MPA),
- Law and Master of Urban Planning, Design and Development with the Levin College of Urban Affairs (JD/MUPDD),
- Law and Master of Science in Environmental Science with the Department of Biological, Geological, and Environmental Sciences (JD/MSES), and
- Law and Master of Environmental Studies with the Levin College of Urban Affairs (JD/MAES)

Resources and Facilities

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- **Back to General Information**

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- **Comprehensive Learning Center**
- **Student Life**
- **Health and Wellness**
- **Career Services Center**
- **Distance Learning** (opens in new window)
- **Extended Campuses** (opens in new window)
- **Orientation**
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- **Conference Services**
- **Wolstein Center**
- **Writing Center**
- **Bookstore**
- **Housing**
- **Off-Campus Housing Service**
- **Dining on Campus**
- **Parking Services**
- **Banking Service**
- **Student Identification**
- **University Police**
- **Campus Safety Report**
- **Center for Teaching Excellence**
- **Recreation Center**
- **Child Care Center**

Resources and Facilities

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Library

Introductory

The University Library is the place to get connected to information resources for a successful college career. Whether you connect to the library using the Internet (**http://www.ulib.csuohio.edu/**), using the phone (216- 687-5300), or in person in Rhodes Tower, the library offers solutions to your information needs. The library's mission is to bring people and information together. We will help you become a proficient information user and fulfill all your academic and research needs.

Collections

The library collections provide the best of contemporary and traditional research tools. The library's online collection of books and journal articles is far more suitable for academic coursework and research than resources available elsewhere on the Internet. With online access to 29,000 journal titles, more than 230 research databases, and other online resources, you have the materials at your fingertips required to write term papers, complete course assignments, and conduct other research. The on-site collection includes more than 1,000,000 print volumes and more than 1,000,000 additional items, such as sound recordings, video recordings, DVDs, and microforms.

Special Collections (**http://web.ulib.csuohio.edu/SpecColl/**) covers various topics but focus on primary research materials for the study of the economic, cultural, social, and political history of Cleveland, northeastern Ohio, and the Great Lakes region. Many of these special collections are available online (**http://www.clevelandmemory.org/**) through the Cleveland Memory Project.

Electronic Course Reserve (**http://www.ulib.csuohio.edu/services/ecr/index.html**) provides thousands of items, in a variety of formats, each semester to supplement course material.

When you cannot find what you need in the library's online or on-site collections, you can connect to OhioLINK, a consortium of 85 colleges and universities, the State Library of Ohio, and Cuyahoga County Public Library. Through OhioLINK, you can place online requests for books from a statewide collection of 45,000,000 volumes, and you have access to more than 100 research databases. For items not in OhioLINK, InterLibrary Loan allows you to have access to an unlimited number of library books and journals owned by other libraries in Ohio, the country, and the rest of the world.

Services

The library's Web site (**http://www.ulib.csuohio.edu/**) is your research starting point for access to thousands of online journal articles, e-books, research databases, and the virtual reference page. Bookmark the library's Web site and use it as your first choice when looking for information pertaining to coursework and research.

For tips with selecting and using information resources, reference librarians can offer one-on-one expert advice. You can contact one of these information professionals by phone (216-687-5300), by e-mail (**http://www.ulib.csuohio.edu/ask/email.shtml**), through online chat (**http://olc6.ohiolink.edu/**) or in person in the library.

The library also provides group instruction. Through the collaboration between instructors and library staff, you can learn to use the best information resources rather than relying on random information found through search engines.

If you are at an off-campus location, such as the West Center or the East Center, you also have access to the library. The starting point to find the information you need is **http://html.ulib.csuohio.edu/dl/**, a Web site designed specifically for your use from satellite locations.

Facilities

The Reference Center is the best place to start a research project because librarians are there to help with coursework and research involving information resources. The area provides 60 workstations for your use.

The Library Computer Learning Center (LCLC) features 56 workstations. The LCLC is always staffed with knowledgeable, friendly experts who provide one-on-one assistance when you need help with Microsoft Office, Blackboard, the Internet, or online library resources.

The Library Connection Lounges provide you with places to relax, read the latest news, browse current popular books, and hang out with your friends. These contemporary and inviting spaces have comfortable lounge chairs, popular reading materials, including audio books, courtesy of Cleveland Public Library, café-style chairs and tables, electricity and network connections, and a large-screen TV with continuous news coverage. The lounges are located just west of the User Services Center and east of the Adaptive Technology lab on the first floor.

In Multimedia Services, located on the third floor of the library, you can listen to music for a class, watch a video or a webcast, evaluate instructional CD-ROMs and take media-based tests. The lab features both PCs and Macintosh computers, scanners for use in scanning text or images, as well as a wide range of software that allows you to edit audio and video files, design multimedia Web pages, and create graphics and PowerPoint presentations. Multimedia Services also has specifically configured Tandberg audio recorders to facilitate foreign-language learning. In the Viewing Room, you can watch DVDs, videotapes, and even 16mm

films in cinema-like surroundings.

You can rehearse your classroom presentations in the library's Presentation Practice Room in RT 304. The room is equipped with a SmartBoard, PC, overhead projector and lectern. Additional media equipment is available upon request. Call us at 216-687-9337 to reserve RT 304, or to request information on any of the facilities, equipment or materials available at Multimedia Services.

The first-floor Adaptive Technology Lab serves students with special needs. Those with physical impairments find adaptive keyboards, enhancing their ability to complete their coursework. For individuals with visual impairments, the lab is equipped with software that scans text, reads text back, and prints in Braille or enlarged text.

The library has always been known as a quiet place to study, but as the use of portable electronic equipment rises and group projects have become more prevalent, the library has redesigned its space to meet these needs. To encourage group projects, the fourth floor has been designed for group study and is furnished with special tables with electrical outlets and network connections placed conveniently on top.

The library also provides network connection areas in the Connection Lounges and behind the LCLC for your individual use. If you have a laptop equipped with a wireless adapter card, you can access the campus network throughout the library.

Technologically advanced electronic instruction rooms are used for library instruction, training in the use of technology, presentations, and hands-on computing exercises. The instruction rooms offer inviting workspaces and flexible seating along with specific equipment such as PCs or laptops, touch-enabled presentation screens, wireless keyboards and mice, and VCR and DVD players. "Smart rooms" enable interactive video distance learning, when classmates are located across town or even in other counties. The rooms are also equipped for video conferencing.

When classes are in session, library hours are typically Monday through Thursday, 7:30 a.m. – 10:00 p.m.; Friday, 7:30 a.m. – 6:00 p.m.; Saturday, 8:00 a.m. – 5:00 p.m.; Sunday, noon – 6:00 p.m.

Resources and Facilities

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- **Virus Scanning & Internet-Related Software**
- **Electronic Mail (E-mail)**
- **CampusNet**
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  - **Discounts on Purchases**
  - **Laptop Loaners - Mobile Campus**
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  - **General Purpose Labs**
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- **Microsoft Office**
- **Software Training**
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Information Services and Technology

- **Go to Information Services and Technology Web site**

Introduction

Information Services and Technology is maintained by the university as an educational and research facility for its faculty, research staff, and students; additionally, it supports the data processing requirements of the administrative offices at Cleveland State University.

We provide and maintain the university computing, network, telecommunications, and duplicating services for the campus community.

Cleveland State Web Sites

Through the use of technology, students can explore faster and better ways to find books, do research with the Internet, and communicate with others around the world. The following is a brief description of the many services that are available to our students.

University Web Site: (http://www.csuohio.edu)

Cleveland State University has a Web site full of useful information. Anyone who has a personal computer and access to the Internet can get information about the university. In addition, students can use CampusNet, a secured system that provides grades, unofficial transcripts, course offerings, and more.

In our university Web site, a wide variety of information is available, including an international student guide, a student admissions guide, a campus map with photos of all buildings, directories on how to reach Cleveland State and where to park. In addition, each college has its own home page, which includes a general description, course offerings, names of faculty members, information about special programs, and more. Many individual departments and professors also have Web pages.

Useful Web Sites:

Resources for classes, research, etc.: **www.csuohio.edu/ats/stu.html**

IS&T Call Center for computer-related questions/issues: **www.csuohio.edu/ist**

Computer labs, equipment & hours, etc.: **www.csuohio.edu/ats/campuslabs**

IS&T Info/Services: **www.csuohio.edu/ist**

Free Dial-up Internet Access for Home

Cleveland State provides students with an Internet access account that provides 500 hours/month of free dial-up Internet access for home. To use the Internet account, a dial-up connection needs to be added to the student's home computer. Instructions on this are available online at **http://www.csuohio.edu/ist**
and are available on paper from RT 1104. Students can also contact the Call Center for instructions at (216) 687-5050.

The Internet Access account log-on name is the student's CSU ID number. The password is the student's CampusPass. Students who do

not know their ID or CampusPass can contact the Call Center for assistance.

Free Virus-Scanning & Internet-Related Software

IS&T provides free virus scanning software on CD and access to free weekly updates. The CD is available from RT 1104 and includes instructions for set-up and use. In addition, IS&T provides a CD containing several freeware and shareware packages through IAP (Internet Access Pack). Students can get IAP free by downloading it from the Web site: **http://www.csuohio.edu/iap** . A copy of the software is also available on a free CD (in RT 1104).

Electronic Mail (E-mail)

Every applicant and registered Cleveland State student--part-time, full-time, graduate, undergraduate and law--has an account on the campus e-mail system. Students who prefer to forward their Cleveland State e-mail to another e-mail address can do this in CampusNet or by contacting the Call Center (216-687-5050). As emergencies, many special events, and other student-specific announcements are sent via e-mail, we recommend that students check their Cleveland State e-mail regularly or forward their Cleveland State e-mail to another e-mail address.

For help accessing your e-mail, contact the Call Center at (216) 687-5050 or check out the following site: **http://www.csuohio.edu/ist** - and just follow the links.

E-mail is available from any networked PC, anywhere. Access to your e-mail is available from a link on the Cleveland State home page or by following **http://webmail.csuohio.edu/**. If you prefer, you can also access your e-mail via Outlook, Outlook Express, Eudora, or other POPmail clients. The student labs have access to student e-mail. Instructions for using Eudora and Outlook are available from the Cleveland State IS&T Web pages: **http://www.csuohio.edu/ist**.

CampusNet

CampusNet is a user-friendly information system available to students. CampusNet is available from any computer with an Internet connection, including home computers, on-campus kiosks, and campus networked computers. The Internet address for the CampusNet system is: **https://campusnet.csuohio.edu/index.jsp**.

Using CampusNet, students can register for classes, add and drop classes, and pay their bursar's accounts. In addition, CampusNet provides commonly requested student information. A student may view and print his or her Bursar's account balance, registration schedule, course list, financial-aid award amount, student record information, unofficial transcript, and personal information, such as address and e-mail address.

CampusNet is accessible with your CSU ID and CampusPass. Students who do not know their ID or CampusPass can contact the Call Center at (216) 687-5050.

Computer Use on Campus

Discounts on Purchases

Students may purchase Apple computers and Gateway computers at significant discounts by visiting the **www.csuohio.edu/ist** Web site and following the links.

Laptop Loaners through the Mobile Campus

The Mobile Campus, located in the Main Classroom Plaza level, provides free laptop loaners to students for up to four hours per loan. These laptops can include either a floppy or CD/RW/DVD drive. There is no cost to either signup for the program or to borrow the laptops. For more information, including open hours, please see **www.csuohio.edu/ist**.

Student Laptop Use on Campus

Students may use their own laptops on campus or may borrow a wireless laptop from the Mobile Campus, located in the Main Classroom Plaza level.

WIRELESS:
Students who want to use their own laptop and a wireless connection will need to configure it for Cleveland State to use their CSU ID number and CampusPass (available from the IS&T Call Center at 216-687-5050). The entire campus is wireless. A map and more information about WoWnet, our wireless network, is available online at **www.csuohio.edu/ist**.

NETWORK DROPS: Students who want to connect their laptop to the Internet on campus using an Ethernet card will need:

1. An Ethernet card set-up for the Cleveland State environment. Instructions available in labs and RT 1104
2. Their CSU ID number and CampusPass (available from the IS&T Call Center at 216-687-5050)
3. A port to plug into, available in each General Purpose Lab, the library, the law library and areas of Urban Studies
4. A network cable

Campus Connection Lounge

The Campus Connection Lounge, located in the Main Classroom Plaza level, is available for casual computer use. Over 50 computers, including MACs, are available with MS Office, Internet-access, e-mail access, etc. To use a lounge computer, students will need their CSU ID number and CampusPass. The Call Center can help students who do not know these (216-687-5050). The lounge provides free printing. For a schedule of hours, please go to: **www.csuohio.edu/ist**.

General Purpose Labs

Student labs are available across the campus. General Purpose Labs are located in Rhodes Tower 403 (in the Main Library), Stilwell Hall 128, Main Classroom 446, Fenn Tower 103, Business Building 23 and Urban Affairs Building 39 and 40. The General Purpose Labs are quiet study areas which provide free printing and scanning. Stilwell Hall lab also has two group work areas where 4-5 students can use a PC together. For a list of hours, software & equipment, visit the following Web site: **www.csuohio.edu/ist**.

In the labs, students can use software such as the current Microsoft Office Suite of products and SAS and SPSS statistical software, search the Internet and check e-mail. Lab assistants are available to answer questions and help with problems.

To use the labs, students will need to sign in using their CSU ID number and CampusPass (available from the Call Center at

216-687-5050).

College Computing Labs

In addition, many colleges also maintain student labs. They are listed in our Web pages with information about equipment and hours. Visit: **www.csuohio.edu/ats/campuslabs/**

Microsoft Office

Through a special contract with Microsoft, the university offers a significant discount on most Microsoft products to students. For information about available products, contact the **IS&T Call Center** at (216) 687-5050. The Microsoft special deals include Microsoft Office (Word, Excel, Access, Outlook and PowerPoint) and Operating System upgrades.

Software Training

Over 100 free, non-credit computer-related courses are available online. These can be used from any Internet-accessible computer. Topics ranging from Word to Rational Rose are covered. In addition, hundreds of online reference books are available. To access these courses, visit **www.csuohio.edu/training**. Use your CSU ID and CampusPass for access. For help with these, please contact the Call Center at 687-5050.

Students who work for the university and need training for their work can attend classroom-based computer-related training sessions offered to faculty and staff through IS&T Training (Schedule: **www.csuohio.edu/ist/schedule.shtml**).

IS&T Call Center

The IS&T Call Center at (216) 687-5050 provides technical and software assistance to students, staff, and faculty. The IS&T Call Center can assist with Internet access, e-mail, and many other problems.

Contact the IS&T Call Center by

- checking the Web site: **http://www.csuohio.edu/ist/callcenter.shtml**
- coming to RT 1104
- e-mailing a question to **callcenter@csuohio.edu**, OR
- calling (216) 687-5050.

IS&T Call Center normal hours during fall and spring semesters are:

Day	*Phone Hours*	*Walk-in Hours*
Sun	Closed	Closed
Mon	7:30 a.m. - 10 p.m.	8 a.m. - 5 p.m.
Tue	7:30 a.m. - 10 p.m.	8 a.m. - 5 p.m.
Wed	7:30 a.m. - 10 p.m.	8 a.m. - 5 p.m.
Thu	7:30 a.m. - 10 p.m.	8 a.m. - 5 p.m.
Fri	7:30 a.m. - 5:30 p.m.	8 a.m. - 5 p.m.
Sat	9 a.m. - 5:30 p.m.	Closed

Check the Web site for vacation, holiday and summer hours (**http://www.csuohio.edu/ist/callcenter.shtml**).

System News

IS&T also maintains a phone line with a recording listing any current system outages. System News line is updated each weekday. Call (216) 687-5252.

Campus Mailbag

When the university needs fast communication with students, we add a notice to the Campus Mailbag which is accessible from the CSU homepage: **www.csuohio.edu**. These messages help students keep in touch with campus events. Students can view special events and other announcements by selecting Campus Mailbag at **www.csuohio.edu**.

Distance Learning

Some classes use **Blackboard**
to enhance or replace traditional classrooms. Each professor using Blackboard or other Web-accessed course materials will provide students with directions for access and use. Once students have accessed Blackboard, they can contact the Call Center for password changes.

IS&T Communications - ask the CIO & info@csuohio.edu

IS&T provides a monthly newsletter online at **http://www.csuohio.edu/ist/whatshappening/infonewsltrs/info.htm**. When students have specific questions, they can send an e-mail directly to the IS&T CIO at **askcio@csuohio.edu**.

Resources and Facilities

Comprehensive Learning Center (CLC)

- **Go to Comprehensive Learning Center Web site**

- **Introduction**
- **Mission**
- **Vision**
- **The Focus Center**
- **Tutoring Center**
- **CLC Initiatives**
- **Outreach Programs**
    - **Introduction to University Life**
    - **Mentoring Program**
    - **National Student Exchange**

Introduction

The Comprehensive Learning Center (CLC) is committed to the concept of encouraging educational commitment, providing support and having great expectations of Cleveland State University students. We provide a wide range of services and programs that promote students' academic success, learning, and retention, through the Focus Center and the Tutoring Center. Other CLC initiatives include the Introduction to University Life course for first-year students, the Mentoring Program, and the National Student Exchange Program.

For more information about the Comprehensive Learning Center, visit the Web site: **http://www.csuohio.edu/clc**.

Mission

The purpose of the Comprehensive Learning Center is to promote greater integration among Cleveland State University's academic and co-curricular student learning experiences, particularly at the first- and second-year level. The center will facilitate and provide opportunities for: increased student to student and faculty to student interaction through the freshman orientation course and mentoring activities; engagement in opportunities that link students' curricular and co-curricular experience; and increased student engagement and success through tutoring services, workshops, educational resources, and activities. Lastly, the center encourages high academic expectations and educational fortitude for all students regardless of level of academic preparation for college level work, career aspirations, and social classification.

Vision

The Comprehensive Learning Center will be recognized as a leader among public, metropolitan universities in the creation of an integrated and congruent first- and second-year approach to increasing student retention resulting in positive learning outcomes.

The Focus Center

The Focus Center is a unique resource center designed to assist students in their adjustment to college life, and provide academic and career exploration support.

Focus offers ongoing programs and workshops throughout the fall and spring semesters in the following areas: academic support skills, college student issues, and career and major exploration. The center also offers a host of self-directed tools for assistance, including a Career Library, and an assortment of study skills CD-ROMs and videos that are available during the center's hours of operation. We welcome all Cleveland State students to utilize the Focus Center and to participate in the workshops and programs. Contact the Focus Center at (216) 687-5114 for more information. Students can enroll in Focus workshops in person at our University Center location (room 563), online at **http://www.csuohio.edu/clc/focus** or call (216) 687-5114.

Tutoring Center

The Tutoring Center provides academic assistance to Cleveland State University students in a supportive learning environment. A staff of dedicated peer tutors provides free out-of-class assistance at one of our two campus locations (University Center Room 303 and Viking Hall). The Tutoring Center also provides: individual and group tutoring services; assistance with course content and study skill approaches; one-on-one tutoring in time management, note-taking, test-taking, reading comprehension, memory, and organizational skills; access to course materials, textbooks, computer technology training, and much more.

Request or tutoring referrals can be made in person at our University Center location (room 303), online at **http://www.csuohio.edu/clc/tutoring** or call (216) 687-2012.

CLC Initiatives

Introduction to University Life

A central part of the Freshman Year Experience is the freshman orientation course, Introduction to University Life (**ASC 101**, **BUS 101**, **ESC 100**, **HON 101**). To make a successful transition into the university community, this one-credit course must be taken in the first semester of attendance at the university. In addition, the class is a requirement for graduation for all newly admitted full-time students. It is graded on a Satisfactory/Unsatisfactory basis.

The Introduction to University Life course covers information that enhances student's understanding of higher education and transitioning from high school to college. Special emphasis is placed on the nature and the value of a college education in relationship to one's intellectual development, degree attainment, career success, and quality of life. Course topics include understanding university policies and procedures, career exploration, study strategies, academic skills, time management, college student learning, and personal development. Students build collaborative learning skills and form a strong peer network by participating in group

discussions, presentations, and activities designed to foster greater self-confidence, academic success, appreciation of diversity, civility, and retention.

Students who take the orientation course are advised to follow the next semester with a Career Services class, **CSC 121**, which explores the in-depth, long-term planning which is introduced in Introduction to University Life. For more information, contact (216) 687-3734.

Mentoring Program

The guiding principle of the Mentoring Program is that students who are connected with the university will perform better academically and socially, and persist in enrollment longer than those who do not become mentees. Mentoring is a structured one-to-one voluntary relationship over an academic year between a student (mentee) and a faculty or staff member (mentor). Both parties voluntarily participate and are matched primarily by academic backgrounds. Mentors and mentees meet at least four times during a semester to discuss social, academic, and career-related issues. For more information about the Mentoring Program, contact (216) 523-7367. Students can enroll in Mentoring Program in person at our University Center location (room 304) or online at **http://www.csuohio.edu/studentlife/mentoring**.

National Student Exchange

The National Student Exchange (NSE) offers Cleveland State University students the opportunity to take course work at approximately 190 participating colleges and universities throughout the United States as well as Puerto Rico, the U.S. Virgin Islands, Guam and Canada. Students may attend a host institution for up to one calendar year while continuing their progress toward a Cleveland State University degree.

The program allows students an opportunity to explore and learn from different regional and cultural perspectives and to broaden their backgrounds, often through courses not available at their home campus. All pre-approved courses will transfer back to Cleveland State.

Eligible students must maintain full-time enrollment before and during exchange, be of at least sophomore status, and have a 2.5 minimum GPA.

The deadline for application is always February 1 for the following fall semester.

Interested students should contact Diane Tupa at (216) 687-6914 or e-mail **d.tupa@csuohio.edu**. More information may be accessed at **www.nse.org**.

Resources and Facilities

Department of Student Life

- **Go to Department of Student Life Web site**

The Department of Student Life staff strives to provide a variety of quality services and programs to enhance the university experience and complement Cleveland State University's academic mission. A highly trained staff of professionals is available to support students from their first day on campus to the completion of their academic goals. Services include leadership training, support of recognized university student organizations, Greek affairs, student media organizations, judicial affairs, activities, and many other programs and services that support the successful matriculation of all students. Our door is open for your issues, concerns and ideas. Visit us in University Center Room 102, call (216) 687-2048, e-mail at **studentlife@csuohio.edu**, or online at **http://www.csuohio.edu/studentlife**.

- **Judicial Affairs**
- **Center for Student Involvement**
    - **Student Organizations**
    - **Fraternities & Sororities**
    - **Student Bar Association**
    - **Student Government Association**
    - **Student Media Organizations**
- **Center for Leadership & Service**
- **Activities**
    - **Student Activities**
    - **City is Our Campus Ticket Program**
    - **Campus Activities Board**
- **Health & Wellness Services**
    - **Health Services**
    - **Counseling & Testing**
    - **Disability Services**

Judicial Affairs

- **Go to Judicial Affairs Web site**

The Judicial Affairs office exists to provide a safe campus environment for the entire university community. Through the trustee-approved policies called the *Student Conduct Code*, students involved in misunderstandings with other students, faculty, staff or administration can discuss informal and formal resolution options. The *Student Conduct Code* thoroughly explains the due process procedures for incidents that violate university policies. A copy of the code is available in the Department of Student Life, located in UC 102 or on the Web at **http://www.csuohio.edu/studentlife/conduct**.

Center for Student Involvement

- **Fraternities & Sororities**
- **Student Bar Association**
- **Student Government Association**
- **Student Media**
- **List of Recognized Student Organizations**

Student Organizations

More than 150 student organizations are recognized by Cleveland State University. They provide students with opportunities for co-curricular involvement, leadership development and social networking. Organizations invite students to participate in academic, professional, recreational, service and social activities hosted on campus for their benefit. Organizations are open to all students, and the Department of Student Life will assist in establishing new organizations. Other exciting developmental opportunities for involvement are available through our Student Leadership Scholarship program, which provides scholarship funds for various leadership positions in some of our General Fee organizations (i.e. Student Government Association, Student Bar Association, Student Media Publications [Cauldron, Vindicator, WCSB 89.3] to name a few). Stop by the Student Organization Involvement Fairs in the UC Atrium, scheduled for both Fall and Spring semesters. Pick up a Student Organization Directory in the Department of Student Life or view our Web site at: **www.csuohio.edu/studentlife/studentorgs**.

Bottom line ...
don't waste time ...
join a student organization today
and begin to define your way
as you make it to graduation day.

Fraternities & Sororities

- **Go to the Greek Organization Web site**

Cleveland State is home to eight nationally recognized fraternities and seven sororities as well as local fraternities and sororities. These Greek-letter organizations are advised by faculty and chapter advisers. The Coordinator of Greek Affairs also provides assistance with Fall recruitment for the sororities, Greek Week, Greek Fest, Greek Council, Greek Alumni Council and Homecoming activities in which the members participate. Greek-letter organizations provide opportunities for sisterhood/brotherhood, philanthropic events, social activities, scholarship and leadership. Joining a Greek-letter organization provides you, the student, with a wide array of transferable skills useful in your life and future career.

Student Bar Association

The Student Bar Association represents and advocates the interests of the student body in matters pertaining to the Cleveland-Marshall College of Law by allocating funds to duly recognized student organizations of the College of Law and coordinating and promoting programs and activities for students of the College of Law. SBA consists of a Senate of five executive officers and Student Senators from each of the law divisions. Student Bar organizes activities such as the annual Barrister's Ball, fundraisers such as the T-shirt Sale and Book Sale, and various educational and social opportunities for the law student body. Elections are held annually at the end of the spring semester. The Student Bar Association is located in the Law Building Room 28. Its phone number is 216-687-2339.

Student Government Association

- **Go to the Student Government Association Web site**

The Cleveland State University Student Government provides an open forum for students to formulate their beliefs and voice their concerns to the University Board of Trustees, administration and faculty. SGA also offers funding to CSU student organizations, selects students to serve on university committees, and runs the Print Shop (copy center) located in UC 160B. Student Government exists as two branches: the executive and the legislative branches. The Senate (legislative branch) is composed of more than 25 elected student delegates, each enrolled in eight or more credit hours, who represent each class and each college at Cleveland State. The Executive Branch consists of the president, vice president, treasurer, and secretary. Elections are held in the spring term. Student Government offices are located in the University Center Room 160A. Phone (216) 687-2262.

Student Media Organizations

- **Go to the Student Media Web site**

Student publications provide students with excellent opportunities for experience in writing and editing a literary magazine or newspaper. These publications are financed in part by general fees and are edited by students who are selected by the publication staff members. Publications include:

The Cauldron, a weekly newspaper offering news, sports, culture, and opinions that impact CSU students and the surrounding community. Students are needed as writers, editors, photographers, advertising reps, and more (687-2270), **www.csucauldron.com** .

The Vindicator, a monthly multicultural magazine presenting in-depth articles, news and opinions about our diverse campus and Cleveland community. Students are needed as writers, editors, photographers, advertising reps, and more (687-2118) **www.csuohio.edu/vindicator** .

Whiskey Island Magazine, a literary publication featuring poetry, prose, graphic arts, and photography. Students are needed as editors and readers (687-2056). **www.csuohio.edu/whiskey_island**

The Gavel, Cleveland-Marshall's award-winning newspaper covering the issues that affect law students at CSU. Students are needed as writers and photographers (687-4533) **www.law.csuohio.edu/students/gavel** .

In addition to the publications, CSU also boasts **WCSB 89.3 FM**, the student-run radio station. For over 30 years, WCSB has offered the Cleveland community a wide variety of alternative music programming, ranging from indie rock to classical, reggae to fusion and anything else not found on commercial radio. In addition to music, WCSB airs a variety of public affairs shows offering insight into the issues of the day. Students interested in alternative programming are encouraged to apply, (687-3523) **www.wcsb.org**.

Center for Leadership & Service

- **Go to Center for Leadership & Service Web site**

Students get involved with Student Leadership & Service for many reasons. They want to develop career-oriented skills; benefit the community through service projects; broaden their awareness of social issues and contribute to workable solutions; develop the practice of good citizenship; reflect on experiences for personal growth and build understanding and respect for other perspectives. The Student Leadership Academy/ Leadership Development Seminar is a great way to begin your exploration of leadership and service over the course of several Saturdays throughout the semester. Major leadership and service events are offered each semester as are a wide variety of leadership workshops and service opportunities. The center offers free leadership self-assessments, helps match students to community service opportunities, and works with students one on one to help them develop personalized development plans. Advanced leadership opportunities are also available. More information, including a listing of upcoming events, can be found online at **http://www.csuohio.edu/studentlife**, by e-mailing either **leadership@csuohio.edu** or **service@csuohio.edu**, or by calling (216) 687-2048.

Activities

- **Student Activities**
- **City is Our Campus Ticket Program**
- **Campus Activities Board**

Student Activities

- **Go to Student Activities Web site**

The entire campus community, including students, faculty and staff, is provided with an array of campus-wide programs to attend throughout the year. These activities, sponsored by Student Activities, the Campus Activities Board, and other sponsoring groups

throughout campus, include social events, lectures, dances, holiday celebrations, and food and music activities. Events include Welcome to CSU Week, Springfest, Chillfest, Dinner and Dialogue, and many more. If you are interested in volunteering to help plan these events, or if you want more information about attending them, contact the Student Activities staff at (216) 687-2048 or e-mail at **activities@csuohio.edu**. Most events are free and open to the entire campus.

The City is Our Campus Ticket Program

- **Go to Tickets Web site**

The city is your campus. So, take advantage of it and have some fun. Through developing partnerships with a variety of organizations, the Department of Student Life offers opportunities for CSU students to experience all that Cleveland has to offer -- often at a discounted (sometimes free) price. To get the latest information about The City is Our Campus Ticket Program, visit the bulletin board located in the University Center, sign-up to receive e-mail updates by e-mailing **activities@csuohio.edu**, or visit the Web site at **http://www.csuohio.edu/studentlife/tickets**.

Campus Activities Board

- **Go to the Campus Activities Board Web site**

The Campus Activities Board (CAB) is a student organization whose primary function is to plan and facilitate cultural, social, recreational, and educational events. CAB is responsive to student interests, with a primary goal of fostering campus community and unity. CAB offers leadership opportunities in event planning, promotions, budget management, and team development. CAB features five student officer positions (Director, Assistant Director, Budget Manager, Events Coordinator, and Marketing) and a variety of intern volunteer and committee opportunities for those interested in campus event planning.

CABSquad is the events and marketing committee for the Cleveland State Campus Activities Board. Joining **CABsquad** is a great way to meet new people and to become connected with the CSU campus. Through **CABsquad**, members gain experience in recruiting, planning, organizing and promoting events.

To join **CABsquad** visit **www.csuohio.edu/cab** or call 216.687.2244

Department of Student Life

Health & Wellness Services

- **Health & Wellness Services**
- **Counseling & Testing Services**
- **Disability Services**

Health & Wellness Services contact information:

- Campus location: SR 153
- Phone: (216) 687-3649
- Director: **Henry W. Eisenberg**, M.D.

Department of Student Life

Health & Wellness Services

- **Go to Health & Wellness Services Web site [www.csuohio.edu/health]**

Health & Wellness Services offers confidential health-care service to all students, faculty, and staff of the Cleveland State University community. The clinic is staffed by nurse practitioners and two physicians. We provide care for most problems for which you would see your family physician, including blood tests, immunizations, allergy shots, and other laboratory tests. Health-care needs such as sore throats, upper respiratory infections, bladder and gynecological problems and skin concerns can be evaluated and treated. If problems are outside our area of expertise, referrals will be made.

Counseling regarding health concerns such as diet, exercise, activities of daily living and smoking cessation are also addressed. Contraceptive services are available and sexually transmitted infections are evaluated and treated. Free HIV testing is provided. The staff will be glad to discuss your health concerns and are available for consultation.

Services are available by appointment. We have a same-day system for individuals who are acutely ill. Appointments may be scheduled for that day by calling (216) 687-3649 at 8 a.m. Health & Wellness Services is located in SR 153. Hours during the academic year are 8:00 a.m. - 5:30 p.m. Monday and Tuesday and 8:00 a.m. - 5:00 p.m. Wednesday through Friday. Summer and break hours are 8 a.m. - 5 p.m. Monday through Friday.

Health & Wellness Services coordinates the Student Health Insurance program. Our goal is to offer the best possible health insurance coverage from an outside provider for the best price. We serve as the gatekeeper for students who purchase the student health insurance. In order for non-emergency visits to be covered, a referral from Health & Wellness Services is required, which helps keep the premium low for students. For more information about the student health insurance program contact Chickering at **www.chickering.com** or call 1-877-434-2909. To schedule an appointment at Health and Wellness Services call (216) 687-3649.

Emergency and infirmary care is provided by area hospitals.

Department of Student Life
Counseling and Testing Center

- **Counseling Services**
- **Testing Services**
- **Academic Services Center**

- **Go to Counseling and Testing Center Web site**

Counseling Services

Counseling Services, located on the second floor balcony Room 254B of University Center, offers a range of services to students and staff. The purpose of the services is to help students maximize their university experience by helping them better adjust to changes in the personal, interpersonal, educational, and vocational areas of their lives.

The following services are available:

- **Individual Counseling**
  is short-term counseling, usually one to 10 sessions with a counselor to resolve any concerns that a student may have.
- **Couples Counseling**
  is designed to enrich couples' relationships by solving problems, improving communication, and resolving conflicts. Couples counseling is offered to all students and their partners.
- **Group Counseling**
  involves a small number of students who meet to discuss common concerns. The supportive atmosphere and variety of perspectives in group counseling can be particularly helpful.
- **Personal, Educational, and Occupational Information** is available through self-help books, educational and vocational planning aids, and information about a variety of psychological problems in the Counseling Center's library.
- **Academic Counseling** is aimed at improving study skills and eliminating blocks to optimal academic performance.
- **Vocational/Career Counseling**
  employs assessment tools and other counseling interventions to help students clarify their interests, select majors, and decide on the career that best fits their interests, abilities and values.
- **Outreach Programming**
  addresses the specific needs of the university community and relates to a wide domain of psychological issues.
- **University Community Assistance Program (UCAP)** provides initial consultation, assessment, and referral when personal problems begin to interfere with a Cleveland State University employee's well-being or work performance.
- **Consultation Services**
  include private consultation with faculty or staff to assist them in working with each other as well as with students who are of particular concern. Consultation also may be with students who are concerned with the well-being of a friend.
- **Workshops and Seminars**
  are designed to address specific topics such as test-anxiety control, stress management, career decision-making, and overcoming blocks to learning. Counseling Services also offers single-session programs. A variety of topics can be addressed in talks with student or faculty groups. They can be presented in one 60- to 90-minute session, or arrangements can be made to adapt the program to suit a group's special needs.
    - Educational and Vocational Programs
      - Choosing a Major
      - Discovering Interests
      - Reducing Stress During Mid-Terms and Finals
      - Blocks to Learning and How to Overcome Them
    - Study Skills/Academic Services
      - Improving Study Techniques
      - Taking Lecture Notes
      - Improving Listening and Concentration
      - Reducing Test-Taking Panic
      - Managing Test Anxiety
      - Taking Tests
      - Writing Term Papers
      - Speed Reading
      - Preparing for Tests
      - Establishing Study Groups
    - Faculty Workshops
      - Improving Academic Advising
      - Student Needs
      - Working With Angry People
      - Understanding Multicultural Differences
      - Recognizing and Referring the Student in Distress
    - Interpersonal Programs
      - Initiating and Building Relationships

- Parenting Skills
- Strengthening Family Relationships
- Assertiveness
- Goal Setting
- Time Management
- Feeling Good or Overcoming Depression
- Alcohol Awareness
- Human Sexuality
- Eating Disorders

Testing Services

The Testing Center administers entrance exams such as I-ACT and Michigan Test of English Language Proficiency. Several graduate exams, certification exams and validation exams are also given. These include PRAXIS, MCAT, and the MAT. The CLEP(Collge Level Exam Program) is available on a computerized system. This exam permits a student to receive college credit for a course by passing the exam. Faculty test scoring service and student evaluations of faculty are available through the Testing Center.

Academic Services Center

The Academic Services Center provides various forms of academic support including: COMPASS placement testing for math, English, Spanish and French for new students.

Placement testing is the first step required of all new freshman students and those transfer students who have not successfully completed college-level English or math courses. In order to enroll in any English or math course, the placement testing process must be completed prior to registration. The English and math placement tests are designed to assess the level of proficiency in the written use of English as well as a student's mathematical competency level. The objective is to place students into English composition and mathematics courses commensurate with their level of competency. Students are required to register for the course level in which they are placed. In some cases, further testing may be required. For placement testing information, please call (216) 687-2566 or visit **http://www.csuohio.edu/us/placement.htm**.

Tutoring helps students develop a better understanding of the scope and content of their courses. Tutoring is available in the General Education courses at Cleveland State. In order to be hired as a tutor, students must be at the sophomore, junior, senior, or graduate level. In addition, all prospective tutors must be recommended by their professors. Call (216) 687-2012 for tutoring information or visit **http://www.csuohio.edu/collegiate_studies/tutornfs.htm**.

Department of Student Life

Office of Disability Services

Cleveland State University is committed to providing an equal opportunity to all persons. Through the Office of Disability Services, it provides resources and services that enhance academic success and supports persons with disabilities at CSU.

A full range of services, including adaptive technology, sign language interpreters, and specialized test administration, is offered. Students receive such assistance until they graduate. Cleveland State University's campus is accessible and significantly barrier-free. For information, call (216) 687-2015 or (216) 687-3633. (V/TTY)

The university also assists students with disabilities in making career decisions through the **Career Services Center's Project Springboard**.

Resources and Facilities

Advising Services

- **Advising is in the Colleges**
- **Academic Advising Services**
- **Athletic Academic Advising**
- **TRiO/Student Support Services**

- **Go to Advising Web site**

Advising is in the Colleges

The majority of academic advising at Cleveland State is provided in the academic colleges. Each college advising office provides advising for students in their college. This advising process links and imbeds students into their college and their academic departments and provides consistent advising support for students which is critical to academic progress.

For information about how to determine which college advising office is appropriate for you, and how to contact your college advising office, go to **http://www.csuohio.edu/advising/**.

Academic Advising Services

Academic advising is an important part of the support services that are available to undergraduate students to help ensure that they get the most out of their academic experience here at Cleveland State University. Academic advisers on campus work closely with individual students to help them achieve their academic, career, and personal goals, and provide ongoing support and assistance to enhance student success. This ongoing support and assistance includes:

- Guidance in planning a program of study according to each student's academic interests, skills, and goals
- Helping students develop an understanding of the academic requirements needed for graduation, including GenEd, college, and major requirements
- Providing students with assistance in major and career exploration opportunities
- Ongoing assistance with CampusNet and the Degree Audit System
- Ongoing assistance with petitions and graduation applications
- Providing referrals to appropriate University resources offices and departments based on student need

Athletic Academic Advising Program

- **Go to Athletic Academic Advising Web site**

The Athletic Academic Advising Program is designed to supplement the course work of all student-athletes by providing study sessions, tutoring, and academic advising. All student-athletes are under the auspices of the Athletic Academic Advising Program to ensure compliance with NCAA standards. For more information, contact (216) 687-4824.

TRiO/Student Support Services

- **Go to TRiO/Student Support Services Web site**

By taking a collaborative, holistic approach, TRIO/Student Support Services (SSS) encourages and enhances student learning and motivation towards achieving a baccalaureate degree. Student Support Services, a federally funded program (TRIO), provides participants who are income eligible and/or first-generation college students with academic assistance and personal support. To help these students attain their academic goals, the program runs a strong network of advising, tutoring, peer mentoring and other educational services. These services are offered to Student Support Services participants from program entry until graduation.

For over 35 years, TRIO/SSS participants have benefited from services such as:

- Academic advising
- Career planning seminars
- Financial aid workshops
- Academic skills sessions
- Tutorial services
- Computer application workshops
- Cultural and social enrichment activities
- Peer mentoring
- Summer Enrichment Program
- Graduate and professional schools preparation
- Tuition assistance (if eligible)

Eligible participants must be enrolled at Cleveland State and meet at least one of the following criteria:

1. **First Generation**: Neither parent has a bachelor's degree;
2. **Income**: Receive financial aid such as a Pell Grant and/or have a taxable income which meets TRIO/SSS federal guidelines.

Interested students should call (216) 687-5244 or visit the TRIO/Student Support Services program office at 2121 Euclid Avenue, University Center, Room 500.

Resources and Facilities

Career Services Center

- **Introduction**
- **Career Coordinators**
- **Choices Planner**
- **Sloan Career Cornerstone Series**
- **Career Conversations and the Greater Cleveland Connection**
- **LINK Program**
- **CSC's Additive Career Preparation Courses**
- **America Reads**
- **Cooperative Education Program**
- **Clevelandintern.net**
- **Biotechnology**
- **Project Springboard**
- **Senior and Alumni Services**

- **Go to Career Services Center Web site**

Introduction to the Career Services Center

Central to the university experience is career exploration and planning in relationship to academics. In order to complete this introduction to personal and professional development, a student will also develop knowledge of job-search strategies, marketplace realities, and skills specific to his/her field. A full range of student-focused programs and confidential services are available to all Cleveland State University students from the first year through graduation and into alumni status. We hope you visit the Career Services Center often at Rhodes West 280, or call us at 216/687-2233 to make an appointment with a career professional. Other information can be obtained by visiting our Web site at: **www.csuohio.edu/career**.

Career Coordinators

Students have the option to begin meeting with a career coordinator as early as their first semester. In this way students can familiarize themselves with ways in which to explore how their interests, abilities, experiences and values relate to their academic studies and career preparation. Our career coordinators are assigned to assist students in specific majors for which they have developed competencies. Call the Career Services Center to make an appointment with a career coordinator who specializes in your major. Undecided about what major you would like to pursue? We have a coordinator who specializes in working with you on this concern, too.

Choices Planner

- **Go to the Choices Planner information Web site**

Choices Planner is a computer-based program that allows students to explore and assess their interests, skills, aptitudes, and values. By using this system along with a follow-up meeting with your career coordinator, students learn how their choices relate and how understanding their personal characteristics will help them begin to make an informed career decision.

Sloan Career Cornerstone Series

The Sloan Career Cornerstone Series is a program designed to assist students interested in engineering and other technical programs in their career decision-making process. By using the Sloan program, students learn more about the differences in various technical careers, along with the skills and specializations they may need to develop.

Career Conversations and The Greater Cleveland Connection

- **Go to Career Conversations Web site**

To complement Choices and Sloan, as well as the career courses, students have the opportunity to meet individually with alumni and other professionals to learn how academic studies and career development work hand-in-hand. Please see your career coordinator for more information.

The Greater Cleveland Connection

The Greater Cleveland Connection enables students to volunteer or to intern in areas of career interest. Students should see their career coordinator for more information.

LINK Program

- **Go to LINK Program**

The Career Services Center's LINK Program is a collaborative effort between the university and the corporate community seeking to recruit students of color at Cleveland State University. The LINK Program partnership with the corporate community helps minority students clarify personal and professional goals, while fostering career exploration and academic achievement. Newly admitted Cleveland State students begin the program during the summer before their freshman classes begin. LINK's comprehensive support intensifies during the first year with professional mentoring, personal development, career preparation, and scholarships.

Students are recruited primarily from Greater Cleveland-area high schools. Selection of LINK participants is based on admission to the

university, a written essay, submission of written recommendations, and an interview with the LINK Program staff.

LINK's comprehensive and ongoing academic and career support provides the foundation for student success. Students who participate in the LINK Program will be acclimated to the university and will be prepared for career opportunities in business and industry.

Career Services Center's Additive Career Preparation Courses

CSC 121
takes students on a guided exploration of academic majors and career choices. It is recommended that students enroll in CSC 121, Career Orientation, in their second semester. This course fulfills the course requirement for undergraduate participation in the Cooperative Education Program and is recommended for students who wish to explore career options or validate their career choice. This is a one-credit-hour course.

CSC 224
is a three-credit-hour course designed to help students explore the world of work, their skills and interests, job-search strategies, and the relationship between various college majors and careers as well as develop a career portfolio. This course is highly recommended for undeclared/undecided students. This course fulfills the course requirement for undergraduate participation in the Cooperative Education Program.

CSC 321
provides for maximum graduation preparation with minimum anxiety. It is recommended that students register for CSC 321, Employment Strategies, in their junior or senior year or during their graduate program. CSC 321 helps students develop effective job-search strategies. This course fulfills the course requirement for undergraduate participation in the Cooperative Education Program. This is a one-credit-hour course.

America Reads

- **Go to America Reads postings**

Cleveland State students can be placed as reading tutors in Cleveland elementary schools or libraries. Those students with a federal work study award are eligible to apply. America Reads tutors also qualify as Cooperative Education Program participants.

Cooperative Education Program

- **Introduction**
- **Eligibility**
- **Academic Credit**
- **Administration**
- **Co-Op Job Placement and Scheduling**
- **Go to Cooperative Education Program Web site**

Introduction

Through the Cooperative Education Program, students can explore career and academic options, pretest career choices, put academic theories to work with professionals in their field, polish personal and professional skills, and earn money to contribute to their educational costs. Cleveland State University offers the Cooperative Education Program in all undergraduate fields of study and most graduate programs. Co-op students work in positions that are closely related to their academic areas of study and career interests. Work experiences are typically scheduled during alternate semesters beginning in the sophomore year. In some cases a parallel schedule of part-time work is available.

Co-Op Eligibility

There are three basic requirements for admission to the Cooperative Education Program: Students must have earned at least 30 semester hours, be in good academic standing prior to the first assignment, and have completed the one-credit-hour **CSC 121** Career Orientation course. Transfer students are also eligible to participate in co-op.

Application for admission usually is made in the freshman year or, in the case of a transfer student, during the first semester on campus. Application requirements are satisfied when the student completes CSC 121, which presents detailed regulations and procedures for obtaining the greatest value from the co-op program and aids students in clarifying their career goals and sharpening their job-search skills.

Co-Op Credit

All co-op students are required to register their co-op experience with the university. **CSC 300** provides for academic credit in recognition of the educational value of the cooperative education experience. In this way, one credit is given for each co-op experience completed. This credit is not counted toward the number of hours needed for graduation, but it will add academic hours to a student's credit total. The academic credit maintains a student's full-time status while on a co-op job. **CSC 400**, a non-credit option, is also available. However, CSC 400 does not maintain a student's full-time status.

Co-Op Administration

The Cooperative Education Program is administered by the **Career Services Center**. During the Career Orientation course, students are assigned to a career coordinator. The coordinator acts as a liaison between the university and the working community, developing co-op opportunities and maintaining an effective rapport with all program participants.

Co-Op Job Placement and Scheduling

Co-op employers include a wide range of businesses and industries, governmental, social service agencies, and school systems. Jobs are developed with employers who will provide a meaningful work experience, the standard rate of pay for the work being performed, and a careful evaluation of the student at the completion of the work semester.

Coordinators help students in the entire placement process, providing counseling and contacts. Students then apply directly to the employer and are hired on their own merits. Students must register for **CSC 300** or **CSC 400** (Co-op Field Experience) during each semester in which they have a work assignment.

The co-op schedule, showing the semesters the student will be in school and when the student will be at work, is prepared by the coordinator in consultation with the student and the appropriate academic adviser. The co-op student typically alternates periods of being at work and at school from the end of the freshman year to the beginning of the senior year. Two students are often paired with the same employer, thereby keeping a designated co-op position filled at all times. Variations in length and pattern of co-op schedules are considered on an individual basis with many factors being considered.

Students enrolled in the Cooperative Education Program are expected to comply with all of the policies, rules, and procedures governing the program, which are explained further in the Career Orientation course.

Clevelandintern.net

- **Go to Clevelandintern.net Web site**

Experience in your field is a valuable tool for finding a professional opportunity after graduation. The Clevelandintern.net Program is a consortium of local colleges and universities who share internships with students in participating schools. These internships span all majors and include local and out-of-town jobs. The Clevelandintern.net openings can be accessed through the **VikingNet** system.

Biotechnology

- **Go to Biotechnology Certificate Web site**

The Career Services Center has a special program targeted for students interested in entering the biotechnology industry. Co-ops and placements are actively sought by the many biotechnology companies in the Cleveland area. Additionally, the center coordinates the academic Biotechnology Certificate programs offered through the colleges of Science, Business Administration, and Engineering. For more information, call Career Services or visit **www.csuohio.edu/career/biotechnology**.

Project Springboard

- **Go to Project Springboard Web site**

Project Springboard offers career counseling with a specific focus on cooperative education to Cleveland State University students who have a disability. The goal of this program is to aid in defining career goals and help students gain degree-related work experience while earning their degree. Contact at (216) 687-2233 for more information.

Senior and Alumni Services

For students approaching graduation, the Career Services Center provides Senior and Alumni Services. Senior and Alumni Services are available to all undergraduate students with more than 90 academic hours. Graduate students are eligible for these services throughout their entire graduate program. Eligibility continues after graduation and the services continue to be free of charge for the first year after graduation. Services to seniors and alumni include **CSUcareerline**, our Internet-based system that provides access to hundreds of full-time degreed positions available at local and national employers. Seniors and alumni are also eligible to participate in the On-Campus Recruiting Program, career fairs, and other various events held throughout the year. The center's **Career Resource Library**
provides graduating students with directories, videotapes on career opportunities, career-path resources, connection to the Internet, and information on hundreds of companies.

For additional information on any of these programs and services, call or visit the

Career Services Center
Rhodes West 280
(216) 687-2233
www.csuohio.edu/career/

Center for eLearning

What is eLearning?
eLearning courses can be delivered in a variety of ways, including fully online courses, blended courses, or interactive video distance learning. Find out more about eLearning, including a complete schedule of elearning courses.

Announcements:
New eLearning Website »
Request your CE6 course »
eLearning in CampusNet »
Migrate your WebCT courses »

Mailing Address
Cleveland State University
Center for eLearning
2121 Euclid Avenue, RT 203
Cleveland, OH 44115-2214

Campus Location
Rhodes Tower 203
1860 E. 22nd St.

Phone: 216.687.3960
elearning@csuohio.edu

Blackboard CE 6

Students and faculty can find FAQs and support documentation for CE6 at the **Ask eLearning Knowledge Base**.

Information & Resources for Students

Are you ready for online learning? Need help? Find answers to your questions in the For Students section. Or, begin by browsing through CSU's online Courses & Programs.

Information & Resources for Faculty

Whether you are an expert in eLearning, or a novice, the Center has information and resources that can support your eLearning goals.

Convenient Locations
Downtown
East Center
West Center
Lakeland Community College Partnership
Lorain County Community College Partnership
Other Locations

CONVENIENT LOCATIONS

With campuses and partnership locations throughout Northeast Ohio, Cleveland State makes it easy to earn a degree, complete a certificate or take the courses you need to get ahead.

Downtown

Eighty-five acres of classrooms, labs, libraries, recreation facilities and student housing make up our thriving main campus, located just east of downtown Cleveland.

East Center

Close to home or work, East Center opened in 2004 and serves the East Side suburbs. It is located in Solon in the Centre Point Building at the intersections of Route 422 and 91.

West Center

Expand your horizons at West Center, opened in 2003 and serving suburbs on the West Side. You'll find us in Westlake, just off I-90 at the Columbia Road exit.

Lakeland Community College Partnership

Stay on the Lakeland campus and become a Cleveland State student by transferring seamlessly into any one of five bachelor degree programs.

Lorain County Community College Partnership

We offer a variety of bachelor and graduate degree programs on the LCCC campus, conveniently located in the University Center Building

Other Locations

Cleveland State offers a wide range of courses at libraries, high schools, career centers, hospitals and other colleges.

Cleveland State University • 2121 Euclid Avenue, Cleveland, OH 44115-2214 • 216.687.2000

This page last modified Tuesday, March 20, 2007

Resources and Facilities

Orientation Programs

- **Go to Orientation Web site**

- **Mandatory New Student Orientation**
- **Transfer Orientation**
- **Family Orientation**

Once a student is accepted to Cleveland State, attending the university's orientation program is the first step to take to get to know the university. Orientation will prepare the student for the start of classes and help students learn about the CSU campus and its services. All orientation programs are one-day programs and students are divided into small groups led by well-informed upper-class students, the CSU Orientation Leaders. The orientation staff is located in RTW 238 and can be reached by e-mail at **orientation@csuohio.edu** or by phone at 216-687-9379 and 216-523-7497. More information is available on the Orientation Web site: **http://www.csuohio.edu/orientation**.

Mandatory New Student Orientation

New Student Orientation is a mandatory one-day program for all first-year domestic CSU students. Orientation includes placement testing, academic advising, course registration, campus tours, Viking ID cards, and sessions on financial aid, student involvement, parking, safety and much more. For students attending fall and summer semesters, orientation programs occur between March and August. For students attending spring semester, orientation programs occur from December to January. Each new first-year student will have a hold on his or her account preventing course registration until finishing this mandatory orientation program.

Transfer Student Orientation

Transfer Student Orientation is an optional program for new CSU transfer students. Since transfer students have already attended another institution, Transfer Student Orientation focuses on the CSU campus and all of the services necessary for college success. For students unable to attend the on-campus program, we offer Online Transfer Orientation located on our Orientation Web site. For students attending fall and summer semesters, orientation programs occur during the summer. For students attending spring semester, orientation programs occur prior to the start of the semester.

Family Orientation

Family members play a vital role in the academic success of their students. They may attend the Family Orientation program on the day when the students attend their own programs. Family members will learn about CSU services and ways to help support their students. However, family members will not be with their students their entire day. Family members can also attend the Transfer Student Orientation programs. There is a program fee for family members and we recommend that only family members attend the programs.

Resources and Facilities

University Center

Many of Cleveland State's student activities and services take place in University Center, 2121 Euclid Avenue, west of the Main Classroom Building. The atrium, commonly referred to as "the cage," is the site of major campus activities and programs throughout the year. UC is the home of the Department of Student Life, Student Government, student publications, and student organizations. Campus411, located on the first floor of the University Center, provides a comprehensive approach to ensure university students are well served. At Campus411, questions and concerns regarding financial aid, student accounts, registration, and academic records are addressed. Professionals work proactively to provide cross-functional service in one central location. The offices of Financial Aid, Treasury Services, Registrar, Collegiate Studies, Handicapped Services, Black Studies, and the Howard A. Mims African-American Cultural Center are located in UC along with lounges and eating facilities.

Dining Services

- **Go to Dining Services' Web site**

For dining services at the University Center, see the section on **Dining on Campus**.

Conference Services

- **Go to Conference Services' Web site**

Conference Services, located in UC 2, is responsible for requesting use of all facilities on campus. We are a centralized and cooperative effort among campus support departments dedicated to providing complete event planning to guarantee successful programs. Conference Services also provides comprehensive information regarding student events, services, and activities occurring at Cleveland State.

Wolstein Center

- **Go to Wolstein Center Web site**

The Wolstein Center at Cleveland State University plays host to a myriad of special events, including contemporary concerts by international recording artists, nationally acclaimed family shows, professional and amateur sporting events, trade shows and conventions, consumer shows, and a vast array of community and civic functions. The center is also the home of the Division I, Horizon League — CSU Vikings Men's and Women's Basketball games.

The arena is a state-of-the-art, full-service, multipurpose facility that is capable of seating up to 15,000 people for special events. All new scoreboards, concession stands, VIP Loge, LED Marquee, and the Backstage Café ensure that guests will enjoy their visit. The Wolstein Center has made a commitment to bring the best of world-class entertainment, hosted in a first-class sport/entertainment facility, to all of Northeast Ohio.

The Conference Center has over 10,000 square feet of conference and annex space which has the flexibility to host banquets, receptions, and conferences to serve a wide variety of needs. The facility has two large ballrooms that can be divided into smaller rooms for more intimate gatherings. The Conference Center also has a full range of audiovisual equipment available for special events. For larger banquets, trade shows, and conferences, the Arena Grand Ballroom can host events up 2,000 guests. The in-house caterer, SMG, provides a full line of catering services for events in the Arena and Conference Center.

For more information, employment opportunities, or to reserve a date, click on the **Wolstein Center** link, or call at (216) 687-9292.

The Wolstein Center at Cleveland State University is managed by SMG, and located on the campus of Cleveland State University, between East 21st and East 18th streets and Carnegie and Prospect avenues. Headquartered in Philadelphia, SMG provides facility services to over 200 public assembly facilities including arenas, stadiums, performing arts theaters and convention and trade centers. With facilities across America and in Puerto Rico, Mexico, Canada, Europe and the Middle East, SMG controls over 1.5 million entertainment seats worldwide and manages more than 10 million square feet of exhibition space. For additional information on SMG, visit **www.smgworld.com** (link opens in new window).

Writing Center

- **Go to Writing Center Web site**

The university Writing Center, located in the University Library, Room 105, provides several opportunities for students of all levels to improve their writing. Any student can enroll in a two-credit-hour course (English 105 or 106) that gives extra support throughout the semester in a combination of eight private tutorials and eight group workshops. This course is Pass/Fail and counts toward graduation.

Any student can also call to schedule a private 30-minute tutorial on any aspect of the writing process — from planning, researching, drafting and revising to editing.

Students can drop in for a tutorial or they can leave a paper and schedule a phone conference if they cannot visit the center due to their schedules. Students can also receive online assistance by e-mailing the director at **m.murray@csuohio.edu**. We cannot promise immediate service; we hope to have your text reviewed within three business days. We have a very large number of tutorials (over 1,400 a semester), which is why we cannot promise immediate service, even though we would like to offer it.

Visit our Web site, **www.csuohio.edu/writingcenter/**, which has links to online handouts on grammar and writing.

Students can also work on two computers or use our collection of handbooks and style manuals.

Tutors are graduate and undergraduate students in English who enjoy talking about writing and see each tutoring session as a learning session. Call (216) 687-6981 for an appointment or stop by Library 124 for a bookmark with our hours. The center is open Monday-Thursday 9:30 a.m.-7 p.m. and Friday 9:30 a.m.-4 p.m.

Resources and Facilities

Bookstore

- **Go to Bookstore Web site**

The CSU Bookstore is located at 2400 Euclid Avenue on the southeastern corner of campus. It is the official bookstore for the university, selling new and used textbooks based on faculty book requests; reference books in professional fields; bargain books; school, office supplies; Cleveland State gear; stamps; greeting cards and wrap; gift items; and a full range of snacks and soft drinks.

The bookstore buys textbooks back at the end of each semester. If the book will be used for a class during the following term, the student can receive as much as 50% of the original purchase price. Books are repurchased until the term's estimated demand is filled. Once the demand is filled, other textbooks are repurchased at wholesale prices.

The bookstore accepts VikingCash, cash, checks made payable to the CSU Bookstore, Visa, MasterCard, Discover, American Express, and most ATM cards. Picture IDs are necessary for all noncash transactions, refunds and book buyback. Online service includes textbook reservations, digital course pack purchases, and an online CSU Gear shop.

Call (216) 687-2128 for more information.

Bookstore hours [from the Bookstore Web site]

Housing

- Go to **Viking Hall Web site** or **Fenn Tower Web site**

Viking Hall and Fenn Tower are Cleveland State's on-campus housing communities. Both communities offer fully furnished units, a great location, quiet study areas and other great amenities that create the right environment for your academic success.

The historic Fenn Tower features a restored entry lobby and several remodeled ballrooms and common areas. Apartments are available fully furnished with cable television, high-speed Internet, and some with kitchenettes. Outside the units, community amenities such as a game room with billiards and big-screen television, fitness center, theater room, laundry center and convenience store merge the building's classic design with modern day function.

Viking Hall is located in the heart of the campus and can accommodate 500 students in large spacious furnished units with carpeting, high-speed Internet, cable television and much more. Community amenities include a computer lab, fitness center, 24-hour security, laundry facilities, television lounge, on-site convenience store and more.

All residents participate in a convenient food service plan and can choose a meal plan from a variety of options.

Requests for information and applications for Fenn Tower and Viking Hall are available in the Department of Residence Life, located in the lobby of Fenn Tower, 1983 East 24th St. For more information, please call (216) 687-5196, or visit **www.vikinghallcsu.com** or **www.fenntower.com**.

Off-Campus Housing Service

- **Go to Off-Campus Housing Service Web site**

The university provides an off-campus housing listing service to connect students interested in living off-campus with property owners who are interested in attracting students as tenants. We maintain an online list of properties that are for rent such as houses, apartments, rooms in a house, roommate situations, etc. In addition, the list is available in paper form in the Office of Admissions (RW 204), the Department of Student Life (UC 102), the Office of Diversity and Multicultural Affairs (UC 501), and Campus 411 (UC 162). This is a free service for students/faculty/staff as a source of information only. Listings are updated every month.

Cleveland State University does not recommend one rental property over another and is not responsible for any decision that is made to enter into a rental agreement on the part of students/faculty/staff or any person who accesses this Web site.

Dining on Campus

- **Go to Dining Services Web site**

A wide variety of dining options are available.

- **Full-Service Dining**
- **Coffee, Pastry, Etc.**
- **Snack Bars and Coffee**

Full-Service Dining

- **University Center Food Court -**
  This full-service dining area, located on the second floor of University Center, is open for breakfast and lunch. Among the selections available in the food court are:
    - Fresh ground coffee
    - Uncle Nick's Greek Fried Chicken
    - Subway
    - Papa Chicago's pizza
    - Home Styles - traditional hot meals
    - Huge soup and salad bar

    - "Grab and go" sushi, salads and sandwiches
- **Viking Hall Dining Room -**
  All current VikingCard ID holders are able to dine in the Viking Hall Dining Room. The freshest meals possible are served because the kitchen has moved to the front of the house and is center stage. Breakfast, lunch and dinner are offered on an all-you-care-to-eat basis. All meals can be cooked to order and include grille items, a cook-to-order stir fry station, all day waffle bar and much more.
- **The Shire -**
  Located on the lower level of University Center, offering breakfast service and great burgers, fish & chips and pub food. A great place to hang out. with games, cable TV, access to the WowNet, etc.

Quick and Convenient

- **C-Zone at UC -**
  Located on the first floor of UC in the "Cage," the Market is a convenience store with a whole lot more ... juices, candy, pop, sundries and a wide selection of snacks.
- **Coffee carts in Rhodes Tower, College of Business and Stilwell Hall lobbies -** Food carts located in these lobbies provide gourmet coffees, bottled juices and a variety of bagels, pastries, salads, and "grab and go" sandwiches.

Parking Services

- **Go to Parking Services Web site**

Parking is available to any student who registers with the Parking Services office and obtains either a daily pay-per-day hangtag or a prepaid parking hangtag.

The daily hangtag allows designated access to Cleveland State University lots for $4.00 per day (hangtag is free).

The prepaid hangtag holders are entitled to park in the core of campus at any time.

The Parking Services office is located in the Chester Building Annex, Room 128. A student must provide the license plate numbers and a photo ID to obtain a hangtag.

Students are responsible for observing the regulations governing parking on campus, as listed in the parking guide and campus map distributed with your parking registration. Click on **www.csuohio.edu/parking** for complete information.

The Office of Parking Services also offers emergency road service to parking patrons, and student employment opportunities.

Parking Services hours of operation are:

Monday - Friday, 8 a.m. - 5 p.m.

Extended hours are maintained during the first week of classes.

For more information, call (216) 687-2023.

Banking Service

Full-service ATMs are available in the lower level of University Center, in the College of Business lobby and in the Bookstore.

Student Identification

- **Go to the VIKINGCARD Identification Web site**

Cleveland State University provides every student with an identification card at the time of class registration. It is called the VikingCard. The VikingCard is the official campus identification card for all CSU students, faculty and staff. It is also your key to programs and services across campus and off. The VikingCard Office is located in University Center, Room 272B. Phone: (216) 875-9888, Web site: **www.csuohio.edu/vcard**

University Police

- **Go to University Police Web site**

The primary function of the University Police is to preserve peace and protect life and property in a manner that is sensitive to the rights of the individual and the values of the university. The Cleveland State University Police Department is located in the annex of the Chester Building, 2300 Chester Avenue, and operates 24 hours a day, seven days a week, stressing patrol, crime prevention, and community service. The Community Service Officer program operates under the jurisdiction of the police. The Community Service Officers provide safety escorts from all campus locations to bus stops, vehicles, the residence halls, and to all campus locations. The safety escort service is available Monday through Friday from 5:30 p.m. to 11:30 p.m. and Saturday and Sunday from 7 a.m. until 11:30 p.m. during fall and spring terms. During summer term and between terms, this service is available until 11 p.m. Call extension 2020 from any campus phone to request an escort, or from a pay phone or cellular phone dial (216) 687-2020. In emergencies, reach Cleveland State Police by dialing 911, or on cellular phones dial 911 and ask for the Cleveland State University Police, or simply lift the receiver and depress the phone button designated "Police/Fire" on campus phones. Blue Light Emergency Phones, located at various sites throughout the campus, ring directly into the University Police Dispatch office when the receiver is lifted or when the button is pressed. The police also facilitate the activities of **Campus Watch**, Cleveland State's nationally recognized volunteer crime prevention organization.

Campus Safety Report

- **Go to Campus Safety Report on the Web**

In compliance with the federal Crime Awareness and Campus Security Act of 1990 and the Student Right-to-Know and Campus

Security Act (P.L. 101-542), the university produces an annual report on campus safety and crime rates. For a copy of this report, contact the Cleveland State University Police Department, located in the annex of the Chester Building, 2300 Chester Avenue, (216) 687-2020.

Center for Teaching Excellence

- **Go to Center for Teaching Excellence Web site**

The Center for Teaching Excellence (CTE) is located in BU 321 within the Nance College of Business. Its purpose is to assist faculty throughout the university in improving their existing teaching skills and acquiring new teaching techniques, including, but not limited to, the use of evolving information technologies. To this end the CTE offers a wide variety of training sessions and workshops for faculty; sponsors external speakers and symposia on teaching-related topics; provides one-on-one consultation and mentoring with individual faculty members; and disseminates internal grant funding to faculty for use in teaching-related projects.

For more information, contact the CTE via e-mail at **g.rink@csuohio.edu**, or call (216) 687-5502.

Resources and Facilities

Recreation Center

- **Go to Recreation Center Web site**

The much anticipated 110,000-square-foot **Cleveland State University Recreation Center**, located at 2420 Chester Avenue, opened fall semester, 2006. The building houses a main gym, a multipurpose gym, a fully equipped weight training area, a fitness area outfitted with a variety of cardio equipment, multipurpose rooms, racquetball and squash courts, and a three-lane indoor running track. A juice bar and an underground 50-space garage for metered, short term parking are also a part of the facility's amenities.

The new Recreation Center is connected to the current Physical Education Building, providing convenient access to the swimming pool in Busbey Natatorium. All CSU students who have been assessed and paid the activity fee to support the Recreation Center automatically have membership without any additional charge. All other students will be charged for membership.

Cleveland State faculty and staff may purchase a Recreation Center membership, and membership programs for alumni and the community will be developed in the first year of operation.

The center is home to all university intramural programs such as flag football, basketball, volleyball, dodge ball, kickball, soccer, tennis, badminton and table tennis. Sports clubs may also use the facility for their events.

Operational management is provided by a company under contract to the university.

Intramural Sports

- **Go to Intramural Sports Web site**

The Intramural Sports Program at Cleveland State University provides a variety of leagues and tournaments throughout the year. These contests emphasize mental, social and physical well-being. The Intramural Sports Program is an all-inclusive operation. Every student registered for classes is eligible to participate. The program is also available to CSU faculty and staff. Intramurals seek to build community amongst CSU students, faculty, and staff through friendly competition. Good sportsmanship is valued above all else. For more information, contact the Intramural Sports Program at (216) 802.3200 or e-mail **intramurals@csuohio.edu**.

Resources and Facilities

Cleveland State University Child Care Center

- **Go to Child Care Center Web site: http://www.csuohio.edu/childcare**

Cleveland State University is committed to providing a high-quality, affordable, on-site child care center. Full- and part-time child care services will be available beginning fall term to students, faculty and staff who are parents or legal guardians of children ages six weeks to 12 years. Enrollment preference will be given to enrolled Cleveland State students. The program will offer care, supervision and early education of children, and will ensure the optimal physical, social, emotional and intellectual development of each child based on the standards set forth by the National Association for the Education of Young Children accreditation system. Cleveland State's Child Development Center will be housed in the University's Recreation Center at 2428 Chester Avenue.

Resources and Facilities

Coming Soon!

Cleveland State University Child Care Center

- **Go to Child Care Center Web site: http://www.csuohio.edu/childcare**

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Division of Student Affairs and Institutional Diversity

On this page:

- **Back to General Information**
- **Introduction**
- **Counseling and Testing Center**
- **Department of Student Life**
- **Health & Wellness Services**
- **Office of Diversity & Multicultural Affairs**
- **University Studies**
- **Comprehensive Learning Center**
- **Go to Division of Student Affairs and Institutional Diversity Web site**

Introduction

- **Go to Division of Student Affairs and Institutional Diversity Web site**

The Division of Student Affairs and Institutional Diversity is committed to student learning, achievement and success. Cleveland State University Student Affairs and Institutional Diversity professionals recognize and value the unique and diverse nature of students and utilize a holistic approach to student development. The broad array of programs, services and co-curricular experiences enriches student learning, provides leadership skill development opportunities, fosters engagement for all students and ultimately builds a stronger campus community.

The chief student affairs officer is the Vice President for Student Affairs and Institutional Diversity, whose office is located in Rhodes Tower 1227. The Student Affairs and Institutional Diversity Division is comprised of the Department of Student Life, Counseling and Testing Center, Health and Wellness Services, Comprehensive Learning Center, the Office of Diversity and Multicultural Affairs, and University Studies. Programs and services offered by these units are located in the links on the left.

Web site: **www.csuohio.edu/studentaffairs**
E-mail: **said@csuohio.edu**

Division of Student Affairs and Institutional Diversity

Counseling and Testing Center

- **Counseling Services**
- **Testing Services**
- **Academic Services Center**

- **Go to Counseling and Testing Center Web site**

Counseling Services

Counseling Services, located on the second floor balcony Room 254B of University Center, offers a range of services to students and staff. The purpose of the services is to help students maximize their university experience by helping them better adjust to changes in the personal, interpersonal, educational, and vocational areas of their lives.

The following services are available:

- **Individual Counseling**
  is short-term counseling, usually one to 10 sessions with a counselor to resolve any concerns that a student may have.
- **Couples Counseling**
  is designed to enrich couples' relationships by solving problems, improving communication, and resolving conflicts. Couples counseling is offered to all students and their partners.
- **Group Counseling**
  involves a small number of students who meet to discuss common concerns. The supportive atmosphere and variety of perspectives in group counseling can be particularly helpful.
- **Personal, Educational, and Occupational Information** is available through self-help books, educational and vocational planning aids, and information about a variety of psychological problems in the Counseling Center's library.
- **Academic Counseling** is aimed at improving study skills and eliminating blocks to optimal academic performance.
- **Vocational/Career Counseling**
  employs assessment tools and other counseling interventions to help students clarify their interests, select majors, and decide on the career that best fits their interests, abilities and values.
- **Outreach Programming**
  addresses the specific needs of the university community and relates to a wide domain of psychological issues.
- **University Community Assistance Program (UCAP)** provides initial consultation, assessment, and referral when personal problems begin to interfere with a Cleveland State University employee's well-being or work performance.
- **Consultation Services**
  include private consultation with faculty or staff to assist them in working with each other as well as with students who are of particular concern. Consultation also may be with students who are concerned with the well-being of a friend.
- **Workshops and Seminars**
  are designed to address specific topics such as test-anxiety control, stress management, career decision-making, and overcoming blocks to learning. Counseling Services also offers single-session programs. A variety of topics can be addressed in talks with student or faculty groups. They can be presented in one 60- to 90-minute session, or arrangements can be made to adapt the program to suit a group's special needs.
    - Educational and Vocational Programs
      - Choosing a Major
      - Discovering Interests
      - Reducing Stress During Mid-Terms and Finals
      - Blocks to Learning and How to Overcome Them
    - Study Skills/Academic Services
      - Improving Study Techniques
      - Taking Lecture Notes
      - Improving Listening and Concentration
      - Reducing Test-Taking Panic
      - Managing Test Anxiety
      - Taking Tests
      - Writing Term Papers
      - Speed Reading
      - Preparing for Tests
      - Establishing Study Groups
    - Faculty Workshops
      - Improving Academic Advising
      - Student Needs
      - Working With Angry People
      - Understanding Multicultural Differences
      - Recognizing and Referring the Student in Distress
    - Interpersonal Programs
      - Initiating and Building Relationships

- Parenting Skills
- Strengthening Family Relationships
- Assertiveness
- Goal Setting
- Time Management
- Feeling Good or Overcoming Depression
- Alcohol Awareness
- Human Sexuality
- Eating Disorders

Testing Services

The Testing Center administers entrance exams such as I-ACT and Michigan Test of English Language Proficiency. Several graduate exams, certification exams and validation exams are also given. These include PRAXIS, MCAT, and the MAT. The CLEP(Collge Level Exam Program) is available on a computerized system. This exam permits a student to receive college credit for a course by passing the exam. Faculty test scoring service and student evaluations of faculty are available through the Testing Center.

Academic Services Center

The Academic Services Center provides various forms of academic support including: COMPASS placement testing for math, English, Spanish and French for new students.

Placement testing is the first step required of all new freshman students and those transfer students who have not successfully completed college-level English or math courses. In order to enroll in any English or math course, the placement testing process must be completed prior to registration. The English and math placement tests are designed to assess the level of proficiency in the written use of English as well as a student's mathematical competency level. The objective is to place students into English composition and mathematics courses commensurate with their level of competency. Students are required to register for the course level in which they are placed. In some cases, further testing may be required. For placement testing information, please call (216) 687-2566 or visit **http://www.csuohio.edu/counseling/PlacementHome.htm**.

Tutoring helps students develop a better understanding of the scope and content of their courses. Tutoring is available in the General Education courses at Cleveland State. In order to be hired as a tutor, students must be at the sophomore, junior, senior, or graduate level. In addition, all prospective tutors must be recommended by their professors. Call (216) 687-2012 for tutoring information or visit **http://www.csuohio.edu/clc/tutoring**.

Division of Student Affairs and Institutional Diversity

Department of Student Life

- **Go to Department of Student Life Web site**

The Department of Student Life staff strives to provide a variety of quality services and programs to enhance the university experience and complement Cleveland State University's academic mission. A highly trained staff of professionals is available to support students from their first day on campus to the completion of their academic goals. Services include leadership training, support of recognized university student organizations, Greek affairs, student media organizations, judicial affairs, activities, and many other programs and services that support the successful matriculation of all students. Our door is open for your issues, concerns and ideas. Visit us in University Center Room 102, call (216) 687-2048, e-mail at **studentlife@csuohio.edu**, or online at **http://www.csuohio.edu/studentlife**.

- **Judicial Affairs**
- **Center for Student Involvement**
    - **Student Organizations**
    - **Student Government Association**
    - **Student Bar Association**
    - **Fraternities & Sororities**
    - **Student Media Organizations**
- **Center for Leadership & Service**
- **Activities**
    - **Student Activities**
    - **City is Our Campus Ticket Program**
    - **Campus Activities Board**

Judicial Affairs

- **Go to Judicial Affairs Web site**

The Judicial Affairs office exists to provide a safe campus environment for the entire university community. Through the trustee-approved policies called the *Student Conduct Code*, students involved in misunderstandings with other students, faculty, staff or administration can discuss informal and formal resolution options. The *Student Conduct Code* thoroughly explains the due process procedures for incidents that violate university policies. A copy of the code is available in the Department of Student Life, located in UC 102 or on the Web at **http://www.csuohio.edu/studentlife/conduct**.

Center for Student Involvement

- **Fraternities & Sororities**
- **Student Bar Association**
- **Student Government**
- **Student Media**
- **List of Recognized Organizations**

More than 100 recognized student organizations exist on the Cleveland State campus to provide students with opportunities for involvement, campus decision-making, leadership experience and networking. These organizations invite students to join and participate in academic, social, professional, and recreational activities through their many events on campus. Organizations are open to all students, and the Department of Student Life will assist you in establishing new organizations. Other exciting developmental opportunities for involvement include the Student Government Association, Student Bar Association, fraternities and sororities, and student media organizations (publications and radio station). Pick up a Student Organization Directory in the Department of Student Life and become active in a student group that provides you with experiences that complement your academic and career goals.

Fraternities & Sororities

- **Go to the Greek Organization Web site**

Cleveland State is home to eight nationally recognized fraternities and seven sororities as well as local fraternities and sororities. These Greek-letter organizations are advised by faculty and chapter advisers. The Coordinator of Greek Affairs also provides assistance with Fall recruitment for the sororities, Greek Week, Greek Fest, Greek Council, Greek Alumni Council and Homecoming activities in which the members participate. Greek-letter organizations provide opportunities for sisterhood/brotherhood, philanthropic events, social activities, scholarship and leadership. Joining a Greek-letter organization provides you, the student, with a wide array of transferable skills useful in your life and future career.

Student Bar Association

The Student Bar Association represents and advocates the interests of the student body in matters pertaining to the Cleveland-Marshall College of Law by allocating funds to duly recognized student organizations of the College of Law and coordinating and promoting programs and activities for students of the College of Law. SBA consists of a Senate of five executive officers and Student Senators from each of the law divisions. Student Bar organizes activities such as the annual Barrister's Ball, fundraisers such as the T-shirt Sale and Book Sale, and various educational and social opportunities for the law student body. Elections are held annually at the end of the spring semester. The Student Bar Association is located in the Law Building Room 28. Its

phone number is 216-687-2339.

Student Government Association

- **Go to the Student Government Association Web site**

The Cleveland State University Student Government provides an open forum for students to formulate their beliefs and voice their concerns to the University Board of Trustees, administration and faculty. Student Government exists as two branches: the executive and the legislative branches. The Senate (legislative branch) is composed of more than 25 elected student delegates, each enrolled in eight or more credit hours, who represent each class and each college at Cleveland State. The Executive Branch consists of the president, vice president, treasurer, and secretary. Elections are held in the spring term. Student Government offices are located in the University Center Room 160A. Phone (216) 687-2262.

Student Media Organizations

- **Go to the Student Media Web site**

Student publications provide students with excellent opportunities for experience in writing and editing a literary magazine or newspaper. These publications are financed in part by general fees and are edited by students who are selected by the publication staff members. Publications include:

The Cauldron
is a weekly student newspaper pledged to serve the entire student community with information and opinion about the campus, the Cleveland community, and beyond. Phone: (216) 687-2270.

The Vindicator
is a bi-monthly multicultural magazine that advocates creative cultural expression and seeks to elevate the level of social justice on campus. Phone: (216) 687-2118.

Whiskey Island Magazine
is a student literary magazine which features selected prose, poetry, graphic arts, and photography. Phone: (216) 687-2056.

The Gavel
is a student publication printed by and for the interest of students enrolled in the Cleveland-Marshall College of Law. Phone: (216) 687-4533.

In addition to student publications, CSU students can get involved in providing the Cleveland community with alternative programming not found on commercial radio.

WCSB 89.3 FM
is a university-owned, 1,000-watt non-commercial FM station operated by Cleveland State University students. The station can be found at 89.3 on the radio dial, and offers a wide variety of programming. Phone: (216) 687-3515 or (216) 687-3523.

Center for Leadership and Service

- **Go to Student Leadership Programs Web site**

Students get involved with Student Leadership & Service for many reasons. They want to develop career-oriented skills; benefit the community through service projects; broaden their awareness of social issues and contribute to workable solutions; develop the practice of good citizenship; reflect on experiences for personal growth and build understanding and respect for other perspectives. The Student Leadership Academy/ Leadership Development Seminar is a great way to begin your exploration of leadership and service over the course of several Saturdays throughout the semester. Major leadership and service events are offered each semester as are a wide variety of leadership workshops and service opportunities. The center offers free leadership self-assessments, helps match students to community service opportunities, and works with students one on one to help them develop personalized development plans. Advanced leadership opportunities are also available. More information, including a listing of upcoming events, can be found online at **http://www.csuohio.edu/studentlife**, by e-mailing either **leadership@csuohio.edu** or **service@csuohio.edu**, or by calling (216) 687-2048.

Activities

- **Student Activities**
- **City is Our Campus Ticket Program**
- **Campus Activities Board**

Student Activities

- **Go to Student Activities Web site**

The entire campus community, including students, faculty and staff, is provided with an array of campus-wide programs to attend throughout the year. These activities, sponsored by Student Activities, the Campus Activities Board, and other sponsoring groups throughout campus, include social events, lectures, dances, holiday celebrations, and food and music activities. Events include Welcome to CSU Week, Springfest, Chillfest, Dinner and Dialogue, and many more. If you are interested in volunteering to help plan these events, or if you want more information about attending them, contact the Student Activities staff at (216) 687-2048 or e-mail at **activities@csuohio.edu**. Most events are free and open to the entire campus.

The City is Our Campus Ticket Program

- **Go to Tickets Web site**

The city is your campus. So, take advantage of it and have some fun. Through developing partnerships with a variety of organizations, the Department of Student Life offers opportunities for CSU students to experience all that Cleveland has to offer -- often at a discounted (sometimes free) price. To get the latest information about The City is Our Campus Ticket Program, visit the bulletin board

located in the University Center, sign-up to receive e-mail updates by e-mailing **activities@csuohio.edu**, or visit the Web site at **http://www.csuohio.edu/studentlife/tickets**.

Campus Activities Board

- **Go to the Campus Activities Board Web site**

The Campus Activities Board (CAB) is a student organization whose primary function is to plan and facilitate cultural, social, recreational, and educational events. CAB is responsive to student interests, with a primary goal of fostering campus community and unity. CAB offers leadership opportunities in event planning, promotions, budget management, and team development. CAB features five student officer positions (Director, Assistant Director, Budget Manager, Events Coordinator, and Marketing) and a variety of intern volunteer and committee opportunities for those interested in campus event planning.

CABSquad is the events and marketing committee for the Cleveland State Campus Activities Board. Joining **CABsquad** is a great way to meet new people and to become connected with the CSU campus. Through **CABsquad**, members gain experience in recruiting, planning, organizing and promoting events.

To join **CABsquad** visit **www.csuohio.edu/cab** or call 216.687.2244

Division of Student Affairs and Institutional Diversity

Health & Wellness Services

- **Go to Health & Wellness Services Web site [www.csuohio.edu/health]**

Health & Wellness Services offers confidential health-care service to all students, faculty, and staff of the Cleveland State University community. The clinic is staffed by nurse practitioners and a physician who will discuss your health history with you, perform physical examinations and provide for your care. We provide care for most problems for which you would see your family physician, including blood tests, immunizations, allergy shots, and other laboratory tests. Health-care needs such as sore throats, upper respiratory infections and bladder and gynecological problems can be evaluated and treated. If problems are outside our area of expertise, referrals will be made.

Counseling regarding health concerns such as diet, exercise, activities of daily living and smoking cessation are also addressed. Contraceptive services are available and sexually transmitted infections are evaluated and treated. Free HIV testing is provided. The staff will be glad to discuss your health concerns and are available for consultation.

Services are available by appointment. We have a same-day system for individuals who are acutely ill. Appointments may be scheduled for that day by calling (216) 687-3649 at 8 a.m. Health & Wellness Services is located in SR 153. Hours during the academic year are 8:00 a.m. - 5:30 p.m. Monday and Tuesday and 8:00 a.m. - 5:00 p.m. Wednesday through Friday. Summer and break hours are 8 a.m. - 5 p.m. Monday through Friday.

Health & Wellness Services coordinates the Student Health Insurance program. Our goal is to offer the best possible health insurance coverage from an outside provider for the best price. We serve as the gatekeeper for students who purchase the student health insurance. In order for non-emergency visits to be covered, a referral from Health & Wellness Services is required, which helps keep the premium low for students. For more information about the student health insurance program contact Chickering at **www.chickering.com** or call 1-877-434-2909. To schedule an appointment at Health and Wellness Services call (216) 687-3649.

Emergency and infirmary care is provided by area hospitals.

Division of Student Affairs and Institutional Diversity

Office of Diversity & Multicultural Affairs

- **Go to Office of Diversity & Multicultural Affairs**

Cleveland State University is a leader in the state in enrolling and graduating minorities and has been recognized nationally in the Top 100. In Spring 2006, 23.6 percent of undergraduate students were minorities. In 2005, 21.2 percent of full-time faculty were minorities. In addition, Cleveland State is noted locally for its multicultural initiatives, including more than 100 courses with a cultural/ethnic focus.

The Office of Diversity and Multicultural Affairs has university-wide responsibility to advance diversity, equal opportunity and positive race and community relations. This includes: ensuring the retention of underrepresented racial and ethnic minorities among students, faculty, staff, and administrators; changing the campus environment through educational experiences that achieve and maintain positive race and human relations; and enriching the urban community environment through outreach and service to minority communities. Program initiatives focus on retention of minority students, faculty, and staff; faculty, staff, and student development activities; development, implementation, monitoring, and support of academic and non-academic diversity initiatives; working with faculty, students, and staff to identify and respond to issues and concerns related to minority groups; development and implementation of policies, procedures, priorities, and programs to better serve the diverse university community; outreach to, and collaboration with, the public and private sectors and other educational institutions; and service to the urban and multicultural communities.

Regular activities include campus climate and retention research, diversity training and multicultural programming such as Hispanic Awareness Week, the annual Diversity Conference, Urban Community Forum and Hispanic Community Forum. The office is administratively responsible for the STARS (Student Achievement in Research and Scholarship) and Upward Bound programs and the AHANA (**A**frican American, **H**ispanic American, **A**sian American and **N**ative **A**merican) Peer Mentoring Program.

The Office of Diversity and Multicultural Affairs is located in University Center, Room 535, and may be reached by calling (216) 687-9394.

Gay, Lesbian, Bisexual and Transgender Student Services

- **Go to Gay, Lesbian, Bisexual and Transgender Student Services Web site**

GLBT Student Services provides innovative and select programming to the CSU community and serves as a resource and information center for gay, lesbian, bisexual, transgender, and questioning students and their allies. The Safe Space program allows faculty and staff to show support for GLBT students by displaying a Safe Space card. There is also a Student Safe Space program for students who wish to show their support. A student listserv keeps students informed and connected. For more information on GLBT Student Services or any of its programs contact us at 687-9265 or e-mail **glbt@csuohio.edu** or visit the Web site at **http://www.csuohio.edu/odama/GLBT/**.

Undergraduate Admissions

On this page:

- **Campus Visits**
- **Contact Information**
- **Enrolling**
    - **First-Time Freshman**
    - **Transfer**
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        - **Transferring Credits**
        - **Transfer Guides, Articulation/ Dual Agreements**
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- **Application Fees**
- **Deadlines & Notification**
- **Standards**
- **Foreign Language**
- **Placement Examinations**

Campus Visits and Contact Information

The Office of Undergraduate Admissions offers information sessions and campus tours da ily and on select Saturdays of each month. Information sessions begin at 2:00 p.m., Monday through Friday with the campus tour im mediately following. Additional information sessions are offered at 10:30 a.m. on Tuesday and Thursday mornings with the campus to ur immediately following. College information sessions are available on select weekdays.

Saturday visitations begin with an information session at 10:00 a.m. with the campus t our immediately following. Individualized admissions appointments are also available for prospective first-year and transfer stu dents. We recommend that prospective students and parents call ahead to schedule their visit with the Office of Undergraduate Admiss ions, allowing adequate time to receive a map to campus and a parking pass.

Please visit our Web site for a comprehensive list of visit days. The Office of Underg raduate Admissions should be your first point of contact for information to assist you in making your college decision and in applying to Cleveland State University. You can reach the Office of Undergraduate Admissions by calling 216-687-5411 or 1-888-CSUOHIO.

Campus Location: Room 204, Rhodes Tower West

Undergraduate Admissions

Enrolling at Cleveland State

Select your admission type

Please click on the green link that describes your highest level of education and reason for attending Cleveland State:

Non-U.S. citizens click here

High School Student or Grad

First-Year Freshman

- **High School Senior** interested in earning a bachelor's degree at Cleveland State.
- **High School Graduate** or **GED recipient** with no college course work after receipt of your diploma/GED.

Pre-College

- **High School Student** interested in taking college course work while enrolled in high school.

Some College Course Work

Transfer

- **College student** interested in transferring to Cleveland State or returning to Cleveland State after attending another college.

Transient

- **College student** interested in taking one semester only (usually summer) at Cleveland State but NOT transferring.

Former Cleveland State

- **Former Cleveland State student** who has not attended another college since leaving Cleveland State.

Bachelor's Degree Completed

Post-baccalaureate

- **College graduate** who has completed a bachelor's degree.

Multiple Educational Levels

Project 60

- **Ohio resident age 60+** who wants to audit courses for free - no minimum educational level.

Non-Degree

- **Any high school graduate, GED recipient, or higher** who does NOT want to work toward a bachelor's degree but simply take courses.

Undergraduate Admissions

Enrolling at Cleveland State

First-Time Freshman Applicants

First-time freshman applicants are those individuals who have not completed any college-level course work after earning a high school diploma or its equivalency (GED). The following materials constitute a complete application from a first-time freshman applicant:

1. A completed Cleveland State application (online or paper)
2. An official copy of the student's grade transcript sent directly from the high school showing the applicant's graduation date
    - Students currently enrolled in high school are encouraged to apply early in their senior year prior to graduation. They may be admitted conditionally until their final, official transcripts showing the high school graduation date are received at Cleveland State.
    - If the applicant did not graduate from high school, an official copy of the student's GED scores must be sent directly from the Ohio Department of Education (or the state that has issued the diploma) in addition to an official copy of the high school transcript.
3. Official scores from either the American College Test (ACT) or the Scholastic Aptitude Test (SAT), if the applicant graduated from high school fewer than five (5) years prior to the application date.
    - Note that these scores may be sent directly from the testing agencies or included on the student's official high school transcript sent directly from the high school.
4. A one-time, $30 undergraduate application processing fee.
5. Completed College-Prep form (current high school students only).

First-time freshmen applicants must meet the following criteria for admission:

- Completion of 13 units of the state-specified, core curriculum in high school
    - 4 units of English and
    - 3 units each of mathematics, social science, and natural science.
      (additionally, 2 units of foreign language and 1 unit of visual/performing arts are strongly recommended)
- Attainment of at least a 2.3 grade-point average (GPA) in high school
- Mandatory completion of the ACT or SAT with a minimum score of 16 or 750, respectively. Students taking the new SAT should earn a minimum combined score of 750 on the math and critical reading sections.

Students must meet the minimum criteria stated above for admission to Cleveland State University. Students not qualifying for provisional admission will be offered dual or deferred admission upon (1) successful completion of specified course work at a regionally accredited, two-year or four-year college or (2) completion of a dual admissions program at an area community college. Provisional students will be limited to part-time study (11 hours or fewer) beginning Fall Semester 2008.

Each of our academic colleges has specific admissions guidelines for direct entrance into the colleges. Students not meeting these requirements may be considered for pre-admission into one of our academic colleges. In some circumstances, students may be admitted into University Studies.

Undergraduate Admissions

Enrolling at Cleveland State

Transfer Applicants

Transfer applicants must earn at least a 2.0 cumulative grade-point average (GPA) at all previous colleges and universities combined in order to be admitted to Cleveland State University as a degree-seeking student.

A complete transfer application includes the following materials:

1. A completed Cleveland State application (online or paper).
2. An official copy of the applicant's grade transcript sent directly from all regionally accredited colleges or universities attended.
    - Note that applicants who have earned fewer than 30 semester hours of college credit must also send an official high school transcript directly from the high school. Applicants who graduated fewer than five years prior to their application date must also submit official ACT or SAT scores. This information will be considered in the admission process.
    - Students currently enrolled in another college or university at the time of their application may be admitted conditionally to Cleveland State based on their previous academic performance pending receipt of their final, official transcript.
    - Applicants who are unable to obtain an official transcript from a previous college/university because of financial or other obligations may not be considered for transfer to Cleveland State. Failure to list attendance at a college or university on the admissions application may be grounds for admission revocation or dismissal from the university.
3. A one-time, $30 undergraduate application processing fee.
4. Undergraduate admissions also recommends that transfer applicants send an official copy of their high school transcript in order to provide documentation of meeting Cleveland State's foreign language requirement.

Each of our academic colleges has specific admissions guidelines for direct entrance into the colleges. Students not meeting these requirements may be considered for pre-admission into one of our academic colleges. In some circumstances, students may be admitted into University Studies.

Undergraduate Admissions

Enrolling at Cleveland State

Transfer

Transferring Credits

Catalog Statement

- **Institutional Transfer**
- **Transfer Module**
- **Transfer Assurance Guides**
- **Conditions for Transfer Admission**
- **Acceptance of Transfer Credit**
- **Responsibilities of Students**
- **Appeals Process**
- **Return to top**

Institutional Transfer

The **Ohio Board of Regents** in 1990, following a directive of the 119th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy. While all state-assisted colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Board of Regents will establish a transfer clearinghouse to receive, annotate, and convey transcripts among state-assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

Transfer Module

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education curriculum in A.A., A.S. and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of course credit in English composition (minimum 5-6 quarter hours or 3 semester hours); mathematics, statistics and formal/symbolic logic (minimum of 3 quarter hours or 3 semester hours); arts/humanities (minimum 9 quarter hours or 6 semester hours); social and behavioral sciences (minimum of 9 quarter hours or 6 semester hours); and natural sciences (minimum of 9 quarter hours or 6 semester hours). Oral communication and interdisciplinary areas may be included as additional options. Additional elective hours from among these areas make up the total hours for a completed Transfer Module. Courses for the Transfer Module should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical and community college is required to establish and maintain an approved Transfer Module.

Transfer Module course(s) or the full module completed at one college or university will automatically meet the requirements of individual Transfer Module course(s) or the full Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Transfer Module. State policy initially required that all courses in the Transfer Module be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Transfer Module courses on a course-by-course basis.

Transfer Assurance Guides

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.

TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisers at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged.

Conditions for Transfer Admission

1. Ohio residents with associate degrees from state-assisted institutions and a completed, approved Transfer Module shall be admitted to any state institution of higher education in Ohio, provided their cumulative grade-point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission priority over out-of-state associate degree graduates and transfer students.
2. When students have earned associate degrees but have not completed a Transfer Module, they will be eligible for preferential consideration for admission as transfer students if they have grade-point averages of at least a 2.0 for all previous college-level courses.
3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an A.A. or A.S. degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade-point average of at least a 2.0 for all previous college-level courses will be eligible for preferential consideration for admission as transfer students.
4. Students who have not earned an A.A. or A.S. degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade-point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis.
5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be completed at the receiving institution.

Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level courses completed in and after fall 2005 from Ohio state-assisted institutions of higher education. Students who successfully completed A.A. or

A.S. degrees prior to fall 2005 with a 2.0 or better overall grade-point average would also receive credit for all college-level course they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade and Appendix D.) While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting.

Pass/fail courses, credit by examination courses, experiential learning courses, and other nontraditional credit courses that meet these conditions will also be accepted and posted to the student record.

Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Students should use the Transfer Module, Transfer Assurance Guides, and Course Applicability System for guidance in planning the transfer process. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their adviser and the college or university to which they plan to transfer.

Appeals Process

Following the evaluation of a student transcript from another institution, the receiving institution shall provide the student with a statement of transfer credit applicability. At the same time, the institution must inform the student of the institution's appeals process. The process should be multi-level and responses should be issued within 30 days of the receipt of the appeal.

----- end of Ohio Board of Regents Catalog Statement on Transfer -----

***Explanation of "Acceptance of Transfer Credit"**

1. Up to and including Summer 2005
    a. Students who have completed the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better will receive transfer credit for all college-level courses in which a grade of D or better has been earned.
    b. Students who have not earned an Associate of Arts or Associate of Science degree will receive transfer credit for all college-level courses completed in which a grade of C- or better has been earned.
2. Fall 2005 and after
    a. Students who have earned credits in Fall 2005 or after at a regionally accredited institution (a list of accepted accrediting bodies is available from the Office of the University Registrar) will receive transfer credit for all college level courses in which a grade of D or better has been earned.
3. Acceptance of credits *does not*
guarantee that transfer courses automatically meet course and/or program requirements for graduation. Students must review individual course and program requirements with their academic adviser to determine whether a transfer courses will count toward graduation.

Undergraduate Admissions

Enrolling at Cleveland State

Transfer

Transfer Guides, Articulation Agreements, and Dual Admissions Agreements

Transfer guides, outlining specific courses and curricula for students wishing to transfer to Cleveland State from Cuyahoga Community College, Lakeland Community College, and Lorain County Community College, can be requested from Undergraduate Admissions or online at:

http://www.csuohio.edu/admissions/transfer/credits/index.html#ccguides

Special Articulation Agreements and Dual Admissions Agreements with the three local community colleges above and additional colleges/universities can be requested from Undergraduate Admissions or found online at the Web address above.

Blanket Transfer Credit

A transfer student from a regionally accredited community college or a junior college who has achieved an Associate of Arts degree will qualify for blanket transfer credit of 60 to 64 semester credits provided that all credits used for that degree have been earned at a regionally accredited institution and the degree curriculum contains the following distribution of credits:

Subject	Credit
English Composition	6
Humanities	10
Natural Science and/or Mathematics	10
Social Sciences	10
General Education and program prerequisites	14-18
Other, including technical course work	10
Total	**60-64**

See also **Acceptance of Transfer Credit** in the Catalog Statement

Special Catalog Rights for Transfers from CCC, LCC, or LCCC

Under certain circumstances a student who transfers to Cleveland State University from Cuyahoga Community College (CCC), Lakeland Community College (LCC), or Lorain County Community College (LCCC) has special catalog rights.

If a student has earned an Associate of Arts degree from one of the three area colleges, and if at least 75 percent of the completed course work was chosen from Cleveland State transfer guides in effect at the time of entering the community college, the student may meet the curricular requirements as stated in the Cleveland State University *Undergraduate Catalog* either for the academic year in which admission was granted to Cleveland State or for the academic year in which the student was admitted to the community college. This is only if the Cleveland State *Catalog* was issued no earlier than two years prior to the student's admission to the university.

Correspondence Courses

A maximum of 10 semester credits may be granted for correspondence courses completed through a regionally accredited college or university or the Defense Activity for Nontraditional Education Support (DANTES).

Advanced Placement Credit

Advanced Placement (AP) Program credit is offered under the auspices of the College Board to high-school students who have completed an official advanced-placement course. Arrangements for testing are made through the high school in which the student is enrolled. Cleveland State grants freshman-year credit for each examination score of 3, 4, or 5. Credit is available in art, history, biology, chemistry, computer science, economics, English, French, German, history, mathematics, music theory, physics, political science, and Spanish.

Students, including transfer students, interested in receiving Advanced Placement credit from Cleveland State should have their official score report sent directly to the Application Processing Center in the Office of the University Registrar. The Registrar's Office administers the granting of credits for this program.

Transfer Module (TM)
Cleveland State University
(Semester Credit Hours)

(Updated/Effective: Spring 2007)

Areas	General Education Requirements Applied to TM	Additional General Education Requirements Beyond the TM for Graduation
English	4 hours ENG 101 and 3 hours ENG 102 or other approved TM courses (2-3 hours) *[Approved Courses: English]*	1. Freshman orientation course (1 hour) *[GenEd: Orientation]* 2. Three courses designated as Writing-Across-the-Curriculum courses (can double as TM courses if so listed) *[GenEd: Writing]* 3. One Western Culture and Civilization Course (3 hours; can double as a TM Course if so listed) *[GenEd: Western]* 4. One Nonwestern Culture and Civilization course (3 hours; can double as TM course if so listed) *[GenEd: NonWestern]* 5. One African-American Experience course (3 hours) and one Human Diversity course (3 hours); One of the two courses can double as a TM course if so listed *[GenEd: African-American]* *[GenEd: Human Diversity]*
Mathematics	Two approved TM courses (6 hours) *[Approved Courses: Mathematics]*	
Arts/Humanities	9 hours of approved TM courses from at least two different areas *[Approved Courses: Arts/Humanities]*	
Social Science	9 hours of approved TM courses from at least two different areas *[Approved Courses: Social Science]*	
Natural Science	8-9 hours of approved TM courses, including one lab course *[Approved Courses: Natural Science]*	
Sub-Total	38-40 hours	
	Transfer Module Total: 38-40 Semester Hours	

Notes: For the complete list of "approved" courses, go to: http://www.csuohio.edu/acaffairs/tmlist.html; For General Education Requirements courses beyond the TM, go to: www.csuohio.edu/acaffairs/gened.htm;

For course descriptions, go to: www.csuohio.edu/undergradcatalog/courses/courses.htm.

- **TM Table**
- **GedEd Table**

Undergraduate Catalog: Transfer Applicants

For more information, contact the Undergraduate Admissions Office (216) 687-5411.

Cleveland State University

Transfer Module

List of Transfer Module (TM) Courses
(Based on GenEd)

(Updated/Effective: Spring 2007)

English | Mathematics & Logic | Arts & Humanities
Social Science | Natural Science

ENGLISH

ENGLISH

ENG 101	English I (4)
ENG 102	English II (3)
ENG 102H	English II -- Honors (3)
ENG 240	Introduction to Poetry (4) *(alternative course for ENG 102, with approval; effective Spring 2007)*
ENG 241	Introduction to Fiction and Drama (4) *(alternative course for ENG 102, with approval; effective Spring 2007)*

FIRST COLLEGE
(All FST courses effective through Spring 2004)

FST 101	ENG - English I
FST 102	ENG - English II

MECHANICAL ENGINEERING

MCE 102	Technical Writing & Professional Communication (2)

MUSIC

MUS 113	Writing about Music (2)

URBAN AFFAIRS

UST 102	Professional Writing (3)

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MATHEMATICS AND LOGIC

MATHEMATICS

MTH 128	Mathematics for Elementary Teachers II (4)
MTH 152	Mathematical Concepts 1b (2)
MTH 153	Mathematical Concepts 1c (1)
MTH 154	Mathematical Concepts 2a (1)
MTH 155	Mathematical Concepts 2b (2)
MTH 156	Mathematical Concepts 2c (1)
MTH 168	Precalculus Mathematics II (4)
MTH 181	Calculus I (4)
MTH 181H	Honors Calculus I (4)
MTH 182	Calculus II (4)
MTH 182H	Honors Calculus II (4)

OPERATIONS MANAGEMENT AND BUSINESS STATISTICS

OMS 201	Business Statistics I (3)
OMS 202	Business Statistics II (3)

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ARTS/HUMANITIES

ART

ART 150	Introduction to Art History and Appreciation (4)
ART 252	Introduction to Early Western Art (4)
ART 253	Introduction to Western Art Since 1400 (4)
ART 256	History of Photography (4)
ART 281	Introduction to Far Eastern Art (4)
ART 286	Introduction to African Art (4)

CLASSICAL & MEDIEVAL STUDIES

LAT 202	Vergil (4)

COMMUNICATION

COM 221	Introduction to Film (4)

DRAMATIC ARTS

DRA 111	Theatre Appreciation (4)
DRA 211	Theatre History I (3)
DRA 212	Theatre History II (3)
DRA 213	Theatre History III (3)
DRA 216	African-American Theatre (3)

ENGLISH

ENG 204	Nonwestern Literature (cross-listed with MLA 204) (4)
ENG 206	Literature & American Culture (4)
ENG 209	Bible as Literature *(effective through Spring 2006)*
ENG 210	Native American Literature (4)
ENG 240	Poetry (4)
ENG 241	Fiction & Drama (4)
ENG 271	Shakespeare & Film (4)
ENG 280	Classical Literature in Translation (taught by ENG, MLA, or REL) (4)

FIRST COLLEGE
(All FST courses effective through Spring 2004)

FST 109	HUM - Foundations of Modern Society I
FST 121	ENG - Great Books Workshop
FST 223	ENG - World Literature

HEALTH, PHYSICAL EDUCATION, RECREATION, AND DANCE

DAN 201	Introduction to Dance (3)
DAN 211	Dance History (3)

HISTORY

HIS 101	Western Civilization I (4)
HIS 102	Western Civilization II (4)
HIS 110	U.S. History Survey (4)
HIS 111	United States History to 1877 (4)
HIS 112	United States History Since 1877 (4)
HIS 165	Introduction to Latin American History (4)
HIS 175	Introduction to African History (4)
HIS 185	Survey of Middle Eastern History (4) *(effective Spring 2007)*
HIS 215	History of African-Americans to 1877 (4)
HIS 216	History of African-Americans Since 1877 (4)
HIS 284	History of Women (4)

MODERN LANGUAGES

MLA 204	Nonwestern Literature (4) (cross-listed with ENG 204)

MUSIC

MUS 111	Enjoyment of Music (4)
MUS 151	Jazz Survey (4)

MUS 161	Roots of Rock and Soul (4)

PHILOSOPHY

PHL 171	Introduction to Philosophy (4)
PHL 181	Historical Introduction to Philosophy (4)
PHL 211	Morals and Rights (4)
PHL 240	Health Care Ethics (3)
PHL 245	Science and Philosophy (4)
PHL 261	Ancient Philosophy (4)
PHL 262	Medieval Philosophy (4)
PHL 263	Early Modern Philosophy (4)
PHL 283	Introduction to Ethics (4)

RELIGIOUS STUDIES

REL 101	Understanding Religion (4)
REL 217	Religion of Black America (4)
REL 227	Science and Belief (3)
REL 231	Introduction to the Old Testament (4)
REL 232	Jesus and the Gospels (4)
REL 233	Paul and the Development of Christianity (4)
REL 234	The Later New Testament (4)
REL 236	Jesus and the Gospels (Writing) (4)
REL 237	Paul and the Development of Christianity (Writing) (4)
REL 238	The Later New Testament (Writing) (4)
REL 239	Introduction to the Old Testament (Writing) (4)
REL 245	Religion in America (4)
REL 249	Current Moral Issues (4)
REL 250	Stages of Life (3)
REL 251	Perspectives on Death and Dying (4)
REL 260	Women and Religion (3)
REL 261	Religion and the Mystery of Evil (4)
REL 265	Religion and Culture (4)
REL 276	Eastern Religions (4)
REL 280	Introduction to Mythology (4)
REL 285	Myths of Fate and Destiny (4)

URBAN STUDIES

UST 250	The City in Film (4)

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SOCIAL SCIENCE

ANTHROPOLOGY

ANT 100	Human Diversity *(formerly Introduction to Anthropology)* (4)
ANT 101	Human Biocultural Evolution (4)
ANT 102	Study of Culture (4)
ANT 103	Ancient Civilizations (4)
ANT 171	Native Civilizations of the Americas (4)
ANT 221	Culture and Human Sexuality (cross-listed with HSC 201) *(effective through Fall 2006)*
ANT 227	Power, Authority and Society in Nonwestern Communities (cross-listed with HIS/PSC 227) (4)
ANT 260	Language, Society, and Culture (cross-listed with ENG/LIN/MLA 260) *(effective through Fall 2005)*

COMMUNICATION

COM 101	Principles of Communication (4)
COM 211	Communicating in Personal Relationships (4)
COM 226	Mass Media and Society (4)
COM 231	Evolution of Mass Media (4)

ECONOMICS

ECN 201	Principles of Macroeconomics (3)
ECN 202	Principles of Microeconomics (3)
	ENGINEERING SCIENCE
ESC 282	Engineering Economy (3)
	ENGLISH
ENG 260	Language, Society, and Culture (cross-listed with ANT/LIN/MLA 260) *(effective through Fall 2005)*
	FIRST COLLEGE (All FST courses effective through Spring 2004)
FST 164	PSY - Perspectives in Psychology
FST 242	PSC - Political Science Workshop
FST 247	SWK - Race, Poverty, and Welfare
FST 254	SOC - Sociology Workshop
FST 257	SWK - Social Work Workshop
FST 264	PSY - Psychology Workshop
FST 271	SSC - African Area Studies
	HEALTH SCIENCES
HSC 201	Culture and Human Sexuality (cross-listed with ANT 221) *(effective through Fall 2006)*
	HISTORY
HIS 227	Power, Authority and Society in Nonwestern Communities (cross-listed with ANT/PSC 227) (4)
	LINGUISTICS
LIN 260	Language, Society, and Culture (cross-listed with ANT/ENG/MLA 260) *(effective through Fall 2005)*
	MODERN LANGUAGES
MLA 260	Language, Society, and Culture (cross-listed with ANT/ENG/LIN 260) *(effective through Fall 2005)*
	POLITICAL SCIENCE
PSC 111	American Government (4)
PSC 217	Urban Politics and the African-American Experience (3)
PSC 221	Comparative Politics (4)
PSC 227	Power, Authority, and Society in Nonwestern Communities (cross-listed with ANT/HIS 227) (4)
PSC 231	International Politics (4)
PSC 241	Freedom and Authority (3)
	PSYCHOLOGY
PSY 101	Introduction to Psychology (4)
PSY 220	Child Development (3)
PSY 221	Adolescent Psychology (3)
PSY 223	Life Span Development (4)
PSY 255	Psychology of Women (4)
	SOCIAL WORK
SWK 201	Contemporary Social Welfare (3)
	SOCIOLOGY
SOC 101	Introduction to Sociology (3)
SOC 201	Race, Class, and Gender (3)
SOC 203	Sociology of Poverty (3)
SOC 210	Introduction to Sociology of the Third World (3)
SOC 211	American Culture and Society (3)
SOC 215	Black/White Interaction (3)
SOC 260	Deviance in the U.S. (3)
SOC 280H	Science, Technology and Society (4)
	URBAN STUDIES
UST 200	Introduction to Urban Studies (4)
UST 290	Urban Geography (4)

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NATURAL SCIENCE

BIOLOGY

BIO 100	The Living World (3)
BIO 102	Human Genetics, Reproduction, and Development (3)
BIO 106	Human Biology in Health and Disease (3)
BIO 107	Human Biology Laboratory (2)
BIO 108	Environmental Ecology (3)
BIO 109	Biological Diversity Laboratory (2)
BIO 200/201	Introductory Biology I & Lab (3/1)
BIO 202/203	Introductory Biology II & Lab (3/1)
BIO 264/265	Introductory Microbiology & Lab (3/1)
BIO 266/267	Human Anatomy and Physiology I & Lab (3/1)
BIO 268/269	Human Anatomy and Physiology II & Lab (3/1)

CHEMISTRY

CHM 151	Chemistry Around Us (3)
CHM 156	Chemistry Around Us Lab (1)
CHM 251	College Chemistry I (3)
CHM 252	College Chemistry II (3)
CHM 256	College Chemistry Lab I (1)
CHM 257	College Chemistry Lab II (1)
CHM 261	General Chemistry I (4)
CHM 262	General Chemistry II (4)
CHM 266	General Chemistry Lab I (1)
CHM 267	General Chemistry Lab II (1)
CHM 272	Honors General Chemistry *(effective through Summer 2005)*
CHM 277	Honors General Chemistry Lab *(effective through Summer 2005)*

ENVIRONMENTAL SCIENCE

EVS 206	Introduction to Environmental Science (4)

GEOLOGY

GEO 100/101	Introductory Geology & Lab (3/1)
GEO 106	Introduction to Meteorology (3)
GEO 140	Development of Continents and Oceans *(effective through Summer 2005)*
GEO 150	Geological History of the Earth (4)
GEO 170	Origins and History of Life *(effective through Summer 2005)*
GEO 202/203	Principles of Paleontology and Lab (3/2)
GEO 210	Earth and Human Affairs *(effective through Summer 2005)*
GEO 230	Natural Resources *(effective through Summer 2005)*

PHYSICS

PHY 101	The Flying Circus of Physics: Motion and Heat (4)
PHY 102	The Flying Circus of Physics: Sound and Light (4)
PHY 103	The Flying Circus of Physics Lab (1)
PHY 201	Astronomy: Stars and Galaxies (4)
PHY 202	Astronomy: Planets, Asteroids and Comets (4)
PHY 221	College Physics I (5)
PHY 222	College Physics II (5)
PHY 241	University Physics I (5)
PHY 242	University Physics II (5)
PHY 243	University Physics I (writing course) (5)
PHY 243H	University Physics I--Honors (writing course) (5)
PHY 244	University Physics II (writing course) (5)
PHY 244H	University Physics II--Honors (writing course) (5)

URBAN STUDIES		
UST 289	Physical Geography (3)	

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For more information, contact the Undergraduate Admissions Office (216) 687-5411.

Undergraduate Admissions

Enrolling at Cleveland State

Transfer

Cleveland State University Appeals Process for Transfer Students

Cleveland State University observes all the rules and procedures stipulated by the Ohio Articulation and Transfer Policy. In particular, we accept all the transfer courses of college level and their credits from other duly accredited public institutions of higher education in Ohio.

At Cleveland State University, we offer the following three stages of appeals that you may pursue in case you are not satisfied at some of our initial decisions on transfer credit applicability:

First Stage:
File an appeal with The Advising Center within 90 days from receipt of this office's notification of your transfer-credit applicability. There isn't any particular form for this process; you just submit an explanation of your view, together with supporting material that you consider relevant. This office will respond to your appeal within 30 days from receipt of the appeal.

Second Stage: If you are not satisfied at the decision from the First Stage process, you may file an appeal with the University Petitions Committee. For this, you have to use and complete the specific form required by the committee. This committee will also respond to your appeal within 30 days.

Third Stage:
If the Second Stage decision again is not to your satisfaction, the Cleveland State University Office of Academic Affairs will conduct a final institutional review of your case. If this review results in endorsing the earlier decisions on your appeal and if you challenge this judgment, you may exercise your right to file an appeal with the State Appeals Review Committee of the Ohio Board of Regents. If you opt to take up this State appeals process, the Office of Academic Affairs will provide you with the officer's name and the address to which appeals may be sent. This Third Stage process will be completed within 30 days from its beginning.

Undergraduate Admissions

Enrolling at Cleveland State

Returning Cleveland State Students in Good Academic Standing

Returning Cleveland State students who have not attended another university, and have not enrolled at Cleveland State for three or more semesters (including summer), may re-enroll by using the online **Re-enrollment Form** or contacting **Campus 411**. A student who interrupts his or her enrollment in the university for three or more consecutive semesters (including summer) must meet the university graduation requirements of the catalog in effect when she or he re-enrolls.

Returning Cleveland State Students Who Were Academically Dismissed

The New Dismissal Policy for students dismissed beginning Fall 2005

A student dismissed from the university who wishes to return may petition the desired college for re-admission after remaining out of Cleveland State University for one calendar year from the month of dismissal. A student is eligible for re-admission only once. In exceptional cases, a student's College Academic Standards Committee would review a petition for a waiver of the mandatory waiting period. If a student is dismissed for a second time and has experienced extraordinary circumstances, a petition can be sent to the University Petitions Committee for consideration of a possible second re-admission. Students should not assume that all petitions will be approved.

Returning students should comply with the following re-admission procedures:

1. Students who were academically dismissed from Cleveland State, but wish to return, first schedule an appointment with an adviser in the Cleveland State college to which they are seeking entrance – not necessarily the college from which they were dismissed.
    a. The college advisers explain re-admission criteria (e.g., number of semesters of nonattendance, GPAs, course requirements, etc.).
    b. Students who meet the criteria are encouraged to submit an application for re-enrollment.
    c. Advisers offer assistance in formulating alternative academic plans for students who do not meet the college criteria (e.g., attendance at a community college, change of major, etc.).
2. Students who have attended other institutions following dismissal from Cleveland State must submit the following directly to the Cleveland State University college in which they plan to enter no later than 15 working days prior to the first day of the semester for which re-admission is requested:
    a. A completed re-admission petition and
    b. Official transcripts from any other regionally accredited colleges or universities attended following dismissal from Cleveland State.
3. Cleveland State University's Academic Standards committees act on students' requests, and notify them in writing of their decisions. If approved, students will also be notified in writing of the conditions of their re-admission (e.g., credit hour enrollment limits, minimum GPA, completion of specified coursework, etc.).
4. Cleveland State's colleges notify the Office of the University Registrar of their decisions to approve or deny student requests.

Policy for students dismissed up to and including Summer 2005

A student dismissed from the university who wishes to return may petition for re-admission after remaining out of Cleveland State University for at least two semesters. A student dismissed for a second or subsequent time must remain out for at least four semesters. Students should not assume that all petitions will be approved. A dismissed student may file only one petition for re-admission during any semester.

In exceptional cases, academic deans will act on a petition for waiver of the mandatory waiting period.

Returning students should comply with the following re-admission procedures:

1. Students who were academically dismissed from Cleveland State, but wish to return, first schedule an appointment with an adviser in the Cleveland State college to which they are seeking entrance – not necessarily the college from which they were dismissed.
    a. The college advisers explain re-admission criteria (e.g., number of semesters of nonattendance, GPAs, course requirements, etc.).
    b. Students who meet the criteria are encouraged to submit an application for re-enrollment.
    c. Advisers offer assistance in formulating alternative academic plans for students who do not meet the college criteria (e.g., attendance at a community college, change of major, etc.).
2. Students who have attended other institutions following dismissal from Cleveland State must submit the following directly to the Cleveland State University college in which they plan to enter no later than 15 working days prior to the first day of the semester for which re-admission is requested:
    a. A completed re-admission petition and
    b. Official transcripts from any other regionally accredited colleges or universities attended following dismissal from Cleveland State.
3. Cleveland State University's college petitions committees act on students' requests, and notify them in writing of their decisions. If approved, students will also be notified in writing of the conditions of their re-admission (e.g., credit hour enrollment limits, minimum GPA, completion of specified coursework, etc.).

4. Cleveland State's colleges notify the Office of the University Registrar of their decisions to approve or deny student requests.

Undergraduate Admissions

Enrolling at Cleveland State

Transient Students

Students are eligible to enroll at Cleveland State University as undergraduate transie nt students for one semester, typically summer, if they:

1. are currently undergraduate degree-seeking students at another college or university,
2. are in good academic standing at their home institution,
3. have obtained written permission from their home institution to attend Cleveland State on a transient basis, and
4. have successfully completed any applicable prerequisites for the course(s) in which th ey wish to enroll.

Transient students are NOT required to complete an application for admission through U ndergraduate Admissions, but instead they complete the Transient Student Enrollment Request through the University Registrar Web site: **http://www.csuohio.edu/admissions/guest/transient.html**.

Therefore, the following conditions apply to transient students:

- registration as a transient student does not imply acceptance to the university as a d egree-seeking student,
- financial aid is not available for transient students,
- Cleveland State University academic department approval must be obtained in order to r egister for 300- and 400-level (junior- and senior-level) courses,
- transient students are subject to the same registration (add/drop) and academic standi ng policies that apply to degree-seeking students, and
- fees are not charged for placement examinations.

To enroll as a transient student, the following materials must be submitted to the Off ice of the University Registrar:

1. A completed Transient Student Enrollment Request.
2. Written verification from the current degree-granting college/university of transient status eligibility, good academic standing and successful prerequisite completion. Usually, the transient student's academic dean or adviser submits this verification along with the courses that the home institution permits the student to take at Cleveland State.

Note that there is no application processing fee required.

Undergraduate Admissions

Enrolling at Cleveland State

Non-Degree Applicants

Non-degree applicants are those who wish to take undergraduate courses or earn a certificate at Cleveland State for personal interest or professional growth, but are not interested in pursuing an undergraduate degree program.

Non-degree applicant restrictions:

- Non-degree applicants must have graduated from high school at least one year prior to their enrollment.
- International students on an F-1 visa are not eligible to be non-degree students.

Non-degree student limitations:

- Scheduled to register for courses after degree-seeking students.
- Required to have departmental approval before registering for upper-level courses (numbered at the 300 and 400 levels).
- Not considered to be enrolled in a bachelor's degree program.
- Ineligible for student financial aid.

When non-degree students are ready to pursue a bachelor's degree program, they must reapply to Cleveland State as a degree-seeking student through Undergraduate Admissions at which time an additional application fee is not required.

A complete, non-degree application file includes:

1. A completed Cleveland State application for admission (online or paper).
2. A one-time, $30 undergraduate application processing fee.

Note that grade transcripts are not required of non-degree applicants but would be required at time of application for a degree-seeking program.

Undergraduate Admissions

Enrolling at Cleveland State

Post-baccalaureate Applicants

Applicants who earned a bachelor's degree from Cleveland State or another regionally accredited college or university may continue to take undergraduate courses by applying for post-baccalaureate status. Reasons for taking additional undergraduate courses may be to:

- earn a teaching license,
- to complete a certificate program,
- to prepare for graduate or professional school,
- to earn a second bachelor's degree, or
- for personal interest.

Students earning a second bachelor's degree:

- have the individual Cleveland State colleges determine course requirements and college/departmental residency requirements, and
- must meet the university residency requirement of 30 semester hours of course work, including a minimum of 24 credits from upper-division courses

Some post-baccalaureate applicants are eligible for student loans, but others are not. Post-baccalaureate students interested in finding out if they are eligible for financial aid should contact **Campus 411** to receive the most up-to-date information.

A complete post-baccalaureate application file includes:

1. A completed Cleveland State application (online or paper).
2. An official copy of the applicant's grade transcript sent directly from the regionally accredited college or university that granted the bachelor's degree showing the date of receipt of the degree.
    - Applicants who are unable to obtain an official transcript from a previous college/university because of financial or other obligations may not be considered for post-baccalaureate admission to Cleveland State.
3. A one-time, $30 undergraduate application processing fee.

College graduates seeking teaching licensure should see the information from the College of Education and Human Services at **http://www.csuohio.edu/coehs/students/advising/postbaccalaureate/**.

Undergraduate Admissions

Enrolling at Cleveland State

Enrollment Options for High School Students

Post-Secondary Enrollment Options Program (PSEOP)

The Post-Secondary Enrollment Options Program (PSEOP) is a state-funded program which offers qualified high-school students the opportunity to gain valuable college life experience and earn credit while supplementing their high-school college preparatory curriculum during the fall and spring semesters. Cleveland State University believes that motivated and dedicated high-school students who participate in this program will profit immensely from the opportunity to interact with college students, faculty, and staff, and experience firsthand the benefits and advantages of a metropolitan university.

Admission to the PSEOP program is based on the student's high-school grade performance and the SAT and/or ACT examination scores. Students who are admitted to the PSEOP program are eligible to enroll in courses for both high-school and college credit. Once enrolled at Cleveland State, PSEOP students are held to the same standards as regular undergraduate students. For more information contact the coordinator at (216) 687-2279 or e-mail **PSEOP.pro@csuohio.edu**.

Senior Year Acceleration Program (SYAP)

The Senior Year Acceleration Program (SYAP) offers qualified high-school students the opportunity to take two courses during the summer between the junior and senior year. Unlike PSEOP, all tuition, fees, and books for students enrolled in SYAP must be paid by the individual student or parent. For more information contact the coordinator at (216) 687-2279 or e-mail **PSEOP.pro@csuohio.edu**.

Undergraduate Admissions

Enrolling at Cleveland State

Active Minds/Project 60 Students

The Project 60 Program enables any Ohio resident, age 60 or older, to enroll in for-credit classes at Cleveland State University on a tuition-free, academic space-available basis. Students are responsible for purchasing their own textbooks, providing transportation, paying for parking, and any other special fees.

Benefits

- Attend classes at the downtown campus, West Center in Westlake or East Center in Solon
- Receive an official Cleveland State ID card (**Viking Card**)
- Use the **University Library**
- Use campus computer labs
- Use the **Career Services Center**
- Obtain membership to the Cleveland State University Recreation Center. Details are available at **www.csuohio.edu/recreation_center/community.html** or call 216.802.3200.
- Receive student discounts with the use of your Cleveland State ID card
- Participate in student events and activities on campus. Visit **Student Life** for details.

Admission

For Spring 2008, Saturday classes begin on January 12 and weekday classes begin on January 14.

If you want to join us for the upcoming semester, please mail or deliver an application form to: Project 60, Cleveland State University, 2121 Euclid Avenue, RW 238, Cleveland, OH 44115-2214. The application form is a simple, one-page form. You can download the **application form** or you can call 216.687.9379 for assistance.

When you are admitted to the Project 60 Program, your student identification number will follow you throughout your association with Cleveland State University. It is not necessary to reapply at any time once you have received a student identification number.

Policies

Classes are taken on an audit basis only, so you cannot earn a degree or credits toward a degree with the classes you take through the Project 60 Program. If you wish to earn a degree or credits toward a degree, please visit our Undergraduate Admissions Office at **www.csuohio.edu/admissions** or call 216.687.5411.

Most for-credit courses are open to Project 60 students on a space-available basis. Students are responsible for obtaining permission to take classes, if necessary. The following courses require permission:

- **Law classes:** call 216.687.4557
- **Studio art classes:** call 216.687.2040
- **Applied music:** call 216.687.2033
- **Graduate classes:** contact the department
- **Continuing Education classes:** all individuals aged 60 and over are eligible for a 15 percent discount. Please visit **www.csuohio.edu/ce** for a list of available classes.
- **Modern languages and laboratory classes:** call 216.687.9379.

Available Classes

The **undergraduate catalog** and list of classes are available **online**. Although paper copies of classes being offered and their descriptions are not available, individual assistance in choosing classes may be obtained at orientation or by making an appointment. Please call 216.687.9379 for more information.

Undergraduate Admissions

Enrolling at Cleveland State

International Student Admissions

- **Go to International Admissions Web site**

Inquiries regarding application procedures should be directed to:

Center for International Services and Programs (CISP)
2121 Euclid Avenue
University Center, Room 302
Cleveland, Ohio 44115
U.S.A.

Phone: 216-687-3910
FAX: 216-687-3965

Web site: **www.csuohio.edu/internat/**

Undergraduate Students Must Submit:

1. Completed application form with a **$ 30**
   non-refundable application fee drawn on U.S. dollars, payable to Cleveland State University. Application fees **CANNOT** be waived or deferred.

2. A complete and official set of your secondary school records. PHOTOCOPIES ARE NOT ACCEPTABLE. If you are transferring from a college or university, official records from each institution attended must also be submitted. All school records must be submitted in original language and should be accompanied by certified English translation, which have been attested as true copies and bear the actual signature in ink and the seal or stamp of an official translator if documents were not issued by school authorities.
3. Proof of having met at least one of the English language proficiency requirements. CSU offers students the following choices to prove English language proficiency.
   - Meet the current score requirements on the Test of English as a Foreign Language (TOEFL) - 525 (Paper Based Exam), 197 (Computer Based Exam), or Internet Based Exam(Reading: 17, Listening: 17, Writing: 14, Speaking 17). Only official test scores received directly from the testing authority (ETS) will be considered valid (**www.ets.org**).
   - Pass the IELTS test (International English Language Testing System) with a minimum score of 6.0 (**www.ielts.org**).
   - Pass the MELAB (Michigan English Language Assessment Battery) with a score of 77.
   - Achieve a score of C (Pass) or better on the 'O' (ordinary) Level or 'A' (advanced) Level of the General Certificate of Education. Scores must be no more than 2 years old.
   - Achieve a score of C (Pass) or better on the Cambridge Certificate of Advanced English (CAE).
   - Completion of English language studies (Level 112) from any of the ELS Language Centers (**www.els.com**).
   - Completion of coursework, at a 'C' level or better, equivalent to the CSU freshman English requirements at a regionally accredited college or university.
   - Successful completion of CSU's IELP(Intensive English Language Program) Advanced Level, with a grade of **80%** or better.
4. Entrance Examination result from either the SAT (Scholastic Aptitude Test - www.collegeboard.com) or ACT (American College Testing Program - www.act.org) is required from **first year (freshman) applicants ONLY.** Students transferring from another college or university are not required to submit these results.
5. Official financial statements and supporting documents showing sufficient funds are available for at least the first academic year. PHOTOCOPIES ARE NOT ACCEPTABLE. No Certificate of Eligibility (I-20 or DS 2019) will be issued without the evidence of sufficient financial support. For more information on financial verification **click here**.

Undergraduate Admissions

Enrolling at Cleveland State

Admission to Special Programs

The following Cleveland State undergraduate programs require additional application procedures beyond regular admission to the university. If you plan to pursue one of the following programs, please click on its link below and complete the additional application procedures:

- **Honors Program**
- **Music**
- **Nursing**
- **Teacher Licensure (Post-baccalaureate)**

Undergraduate Admissions

Application Fees

Each applicant to Cleveland State must pay a one-time $30 application processing fee. After the fee is paid with the first undergraduate application to Cleveland State, the fee is waived for any subsequent undergraduate application.

Applicants experiencing economic hardship may request a deferral of the application fee by submitting appropriate written documentation to the:

Office of the University Registrar, Application Processing Center
2121 Euclid Ave. UC400
Cleveland , OH 44115
216-687-3700

To document economic hardship for application fee deferral purposes, currently enrolled high-school students must submit a letter or form signed by their guidance counselor or educational opportunity program adviser (e.g., Cleveland Scholarship Program, LEAF, I Know I Can).

Applicants who are not enrolled in high school must submit a written request for deferral of the application fee and supporting documentation of income within the above guidelines, such as copies of income tax forms, child support, unemployment documents, welfare and food stamp receipts, etc.

If the deferment is approved, the candidate's application will undergo the typical processing. Upon acceptance, the student may enroll at Cleveland State the first semester, but must pay the application fee following receipt of financial aid. Deferrals are granted for one semester only. Students who fail to pay the application fee during their first semester of enrollment are not permitted to register for the second semester.

Undergraduate Admissions

Current Admissions Standards and New Standards Starting with Fall Semester 2006

From its founding in 1964, Cleveland State University has followed a policy of open admissions for first-year undergraduate students. The University has admitted all graduates of accredited Ohio high schools or GED recipients on a first-come, first-served basis up to the limit of available facilities. Clearly, college graduation has a positive economic impact on the individual students and on the community. Today, Ohio's public universities are judged and funded by whether or not first-time, full-time freshmen remain at Cleveland State and graduate, measures deeply impacted by input characteristics of the students. Based on an analysis of successful Cleveland State students, the university can promote success by admitting freshmen who are prepared academically, as demonstrated by the three criteria below:

- **Completion of 13 units of the state-specified, core curriculum in high school**
  - 4 units of English and
  - 3 units each of mathematics, social science, and natural science.
    (additionally, 2 units of foreign language and 1 unit of visual/performing arts are strongly recommended)
- **Attainment of at least a 2.3 grade-point average (GPA) in high school**
- **Mandatory completion of the ACT or SAT with a minimum score of 16 or 750, respectively. Students taking the new SAT should earn a minimum combined score of 750 on the math and critical reading sections.**

With these criteria serving as the basis for regular admission, the university will offer provisional admission to students who do not fully meet them. These provisional students will be limited to part-time study (11 hours or fewer) during their first year of enrollment at Cleveland State in an effort to promote their academic success. Students not qualifying for provisional admission will be offered dual or deferred admission upon (1) successful completion of specified course work at a regionally accredited, two-year or four-year college or (2) completion of a dual admissions program at an area community college. The new admissions standards will be initiated in Fall Semester 2006 and fully implemented by Fall Semester 2008, when provisional students will be limited to part-time study (11 hours or fewer). Under this plan, the university will honor its access mission while enhancing the overall academic quality and success of its first-year students.

Undergraduate Admissions

Application Deadlines and Notification of Admission Status

Cleveland State reviews student applications on a rolling basis up to two weeks prior to the start of the semester. However, high school students applying for the following fall semester should complete their applications as early as possible in their senior year. Students interested in applying for the Honors Program should apply before January 15 of each year. Selection of students for merit-based scholarships begins in November of each year for qualified students who are admitted to the University. Applicants who apply well in advance of the start of the semester have the advantage of being among the first to be considered for scholarships, reserve housing, schedule orientation and register for classes.

Many programs can admit only limited numbers of new students. When all the space in a program is taken, the Office of Undergraduate Admissions and the Application Processing Center no longer consider applications for that program. In any case, you should make sure that all your application materials are in the admissions office by the following priority dates:

Fall Semester Admission: July 15

Spring Semester Admission: November 1

Summer Semester Admission: April 15

Although we will make every effort to process applications received after the priority date, they cannot be guaranteed to be processed in time for that semester.

After all materials are received to complete an application file, the file is reviewed and the applicant is sent a letter indicating acceptance or denial.

Undergraduate Admissions

Foreign Language Requirement

Cleveland State requires all students who graduated from high school in 1987 or later to have completed two years of a foreign language in high school. Students who did not complete the courses in high school must finish a first-year foreign language sequence, or take two semesters of American Sign Language and one approved foreign-culture course. The deficiency must be corrected prior to the completion of 60 credits at Cleveland State. Students in the College of Liberal Arts and Social Sciences should consult with their adviser on additional foreign language requirements to complete their bachelor's degrees.

The Foreign Language Requirement applies to all undergraduate students, including those who are not native speakers of English and students for whom English is a second language, unless specifically exempted in the policy on Foreign Language Requirement (e.g., post-baccalaureate students). Such students, if deficient in foreign language studies credits upon admission to Cleveland State University, may remove the deficiency by completion of appropriate courses at Cleveland State or by verification of appropriate knowledge of language and culture through the Department of Modern Languages at Cleveland State.

Foreign Language Placement

The courses needed to meet the Cleveland State Foreign Language Entrance Requirement and the College Graduation Requirement depend on how many years were completed in high school and when these were taken. Students who delay their study beyond the first 60 hours risk having to register for courses on an audit basis to make up for lapsed knowledge.

Freshman and transfer students with more than one year or its equivalent study and fewer than three years or their equivalent study in French or Spanish are required to take the placement test. Students with three years or more of study in French or Spanish who want to continue their work in the language must take the placement test to assist in placement. Students who have studied other languages in high school should consult with the Modern Languages Department directly to continue their work in these languages. Faculty in the foreign languages normally conducts informal placement interviews.

Transfer students and students who have taken the Advanced Placement Test in a foreign language should consult with an academic adviser regarding the credit granted; they should then consult with the Modern Languages Department to select appropriate advanced coursework.

Undergraduate Admissions

Placement Testing

- **Go to the Placement Testing Web site**

- **English and Math Placement**
- **Foreign Language**
- **English as a Second Language**
- **Other Tests**

Freshman students are required to take the placement test prior to registering for an English course or math course. Under the new ACT policy, however, students scoring 21 or above will no longer have to take the English placement test. Students who have taken the Advanced Placement Program Exam and received College Board AP credit should consult with an academic adviser. Mandatory placement is in effect for all mathematics courses numbered MTH 115 through 127, 151, and 167 through 181. Students become eligible to take one of these courses by achieving a suitable score on the Math Placement Examination, or by passing the prerequisite course at Cleveland State University or another university or community college.

Transfer students who have completed and received transfer credit for at least one three-credit hour course in Freshman English, or college-level math courses, will not be required to take Placement Examinations. They should consult with their academic adviser to select appropriate coursework based on transfer credit applicability.

- The placement testing process is completely done by computer, and test results are provided immediately upon completion of the tests.
- Placement testing dates, times, and sample tests are available at the Placement Testing Office, Rhodes Tower West Room 289, at 216-687-2566 or online at: **http://www.csuohio.edu/counseling/PlacementHome.htm**
- You do not need to register for the placement tests. Simply show up during the posted placement testing hours.
- **WEEKDAY PLACEMENT TESTS** may be taken anytime during the posted office hours.
- A photo ID is required to take all placement examinations.
- The Office of Disability Services is available to assist students with special needs during placement testing. Call the office at
  (216) 687-2015 for more information.

Foreign Language

- The Academic Services Center also administers the Spanish and French placement tests by computer.
- The Spanish and French departments can access the test results for advising purposes.

English as a Second Language (ESL)

- Students whose first language is not English should first take the English Placement Exam. If they do not place into ENG 101, they should register for ESL 096, which will prepare them for the Freshman Composition series.

Other Tests

- The Academic Services Center administers the Compass test for Education majors and the Chemistry placement test.

University Regulations

- **Back to General Information**

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University Regulations

Enrollment

- **Enrollment Status**
- **Class Rank**
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- **Administrative Withdrawal**
- **Attendance Requirements**
- **Academic Course Load**

Enrollment dates and procedures can be found on the University Registrar's Web site at **www.csuohio.edu/registrar**.

Enrollment Status

An undergraduate student enrolled in at least 12 credit hours (excluding courses taken on an audit basis) each semester shall be considered a full-time student. Enrollment of six credit hours shall be considered half-time and fewer than six credit hours shall be considered less than half-time.

Class Rank

Undergraduate class rank is determined by the number of cumulative hours completed, as follows:

Determination of Undergraduate Class Rank

Rank	Hours
Freshman	0-29 hours
Sophomore	30-59 hours
Junior	60-89 hours
Senior	90+ hours

Enrollment

Each term it is necessary for a student to select courses and pay the appropriate fees to officially enroll for classes. Details regarding enrollment options are available on the University Registrar's Web page at **www.csuohio.edu/registrar**.

Each term's enrollment dates and procedures can be found on the university's **academic calendar**. Add/drop/withdrawal deadlines may be reduced proportionately for any alternatively scheduled course that does not follow that term's established begin and end dates

Changes to Enrollment

A student may enroll for a course by the end of the first week of classes in fall and spring term or before the posted deadline for summer sessions and alternatively scheduled courses without permission. After the first week and up to the 15th day of the term for fall and spring or until the last day to register/add with permission for summer term and alternatively scheduled courses, enrollment may only occur with the permission of the instructor by way of the appropriate late enrollment form. All enrollment forms are available on the University Registrar’s Web site.

Official University Withdrawal Regulations

A student may withdraw from a course without permission through the 10th week of fall and spring or before the published deadline for summer sessions and alternatively scheduled courses.

A withdrawal prior to the 15th day of fall and spring or before the published summer session deadline will not result in a grade on the student transcript. A withdrawal after the 15th day up through the withdrawal deadline will be indicated on the university official academic record by a “W.”

Non-attendance does not constitute an official withdrawal from the course. A grade of “F” may be assigned when a student fails to complete a course or withdraw.

Dropping/withdrawing from courses may affect student financial aid. Students are strongly encouraged to consult their college advising office or Campus411 prior to withdrawing from classes in the current term or retroactively.

Administrative Withdrawal

The university has the authority to withdraw students from classes. Such withdrawals can be enforced upon the request of instructors or academic departments for a variety of reasons including lack of prerequisite course work, inadequate placement results or non-attendance.

Attendance Requirements

Students are expected to attend class. If a student expects to be absent for an extended period of time, notification should be given to the course instructor or college dean. Non-attendance does not constitute a withdrawal.

Academic Course Load

The maximum number of credit hours a student may enroll in for the term is determined by each college. A student wishing to enroll in more credits than the college permits must do so only with the written consent of the student’s academic dean or academic advising

unit. This written consent must be submitted at the time of enrollment. For college specific information, visit the Academic Course Load section for the appropriate academic unit.

Undergraduate Students Taking Graduate Courses

An undergraduate student who is pursuing a baccalaureate degree at Cleveland State University may be granted permission to take one or more (maximum of nine credit-hours) graduate courses at the 500 level if the student meets all the following conditions:

1. The student must be within 30 hours of graduation.
2. The student must have an overall grade point of 2.75 or better through the preceding semester.
3. The student must have a 3.00 or better grade-point average in the major field.
4. The student must obtain permission from his or her adviser, the instructor of the course, and the department chair, via signature on the Undergraduate Request for Graduate Course form.

An undergraduate student who is deficient in any of the above respects may not take a graduate course without the approval of the academic dean of the college where the course is offered and the graduate dean. Undergraduate students may not register for 600- to 800-level graduate courses.

Credit for these courses, up to a maximum of nine credits for courses where the grade received is B or above, may be applied at a later point to a graduate degree program provided that the credit was not used to satisfy baccalaureate degree requirements. Internal transfer of credit is subject to Graduate College transfer credit regulations.

Post-baccalaureate and non-degree students enrolled at the undergraduate level may *not* register for graduate-level classes.

College-to-College Transfer

A student wishing to transfer from one college of the university to another may do so with the written consent of both deans. The transfer request is initiated with the dean of the college in which the student is currently enrolled.

Declaration of Major

Undergraduate students are strongly encouraged to identify major areas of study in conjunction with their academic advisers early in their academic career. It is relatively common for students to explore several areas of study. However, in order to provide students with the best possible opportunity to graduate in a timely manner, all undergraduate students are required to formally declare a major before completing 60 credits. Transfer students who are admitted to the university with more than 60 credits are allowed one semester of study before enrolling in the subsequent semester. This requirement applies to degree-seeking students. Certain colleges and/or programs of study may have specific declaration of major requirements. In those cases, the college/program requirements supersede this university requirement. Declaration of Major Forms are available through the University Advising Center and College Advising Offices.

Transient Status for Current Cleveland State Students at Other Schools

Transient status is approved for eligible students who are currently in good academic standing, up to the limit of eight semester hours over the course of their career at Cleveland State University. Students will not be approved for transient status beyond this limit except when the course(s) to be taken are not offered at Cleveland State and can be justified in terms of their academic program. All work to be completed on a transient basis must be approved in advance through submission of the Transient Permission Form, which is available through the University Registrar's Web site at: **http://www.csuohio.edu/registrar/downloads.html** as well as the various collegiate academic advising offices.

Prior approval must be obtained by students to ensure acceptance and applicability of transient work, according to the following guidelines:

1. All students must obtain approval from the dean's office of the academic college in which they are enrolled.
2. Declared majors must also obtain approval of a faculty adviser within their department in cases where the course is to be applied toward a major-field requirement.

Students who are in their last 30 credits of work at Cleveland State University, and those with junior standing wishing to attend a two-year institution, must seek approval of transient status by petitioning the University Petitions Committee prior to taking the course. Students with junior standing (but not in their last 30 hours) may take a course at a four-year institution with transient permission.

Cross Registration

Full-time Cleveland State students, in good academic standing, can cross-register for a course each semester on a no-fee basis at 14 local colleges and universities. This status is designed to enhance the educational programs of students by allowing them to register for courses not offered at their home school. Cross registration forms can be obtained in the **Office of the University Registrar**. Students should be aware of the scheduling differences at each institution.

Students must remain at full-time status to be eligible for this program. A student's total credit hours (CSU+ hours at the cross-registered school) may not exceed 16 credits.

Credit for Study Abroad

- **Go to Center for International Services and Programs' Study Abroad Web site**

A student who seeks credit for study abroad should consult in advance with the study-abroad coordinator, who will assist the student in obtaining approval for plans.

To be eligible for study abroad, a student must have a university GPA of at least 2.00 and must be enrolled as a degree or non-degree seeking student. Graded credit is awarded only for academic work completed in Cleveland State University programs, at Ohio state universities, and at other institutions with which Cleveland State has academic agreements. A student who wishes to earn graded credit in a study abroad program must request graded credit as part of his or her plan for study-abroad, prior to departure. Final

authorization of transfer credit is given after the student presents to the study-abroad coordinator documentation showing fulfillment of approved written plans for credit and after review by appropriate academic departments.

University Regulations

Alternative Credit

- **Introduction**
- **Credit by Examination**
  - **College Level Examination Program**
  - **Departmental Examinations**
- **Military Training and Experience**
- **Assessment and Accreditation of Prior Learning Experience (AAPLE)**

Introduction

The following programs/services allow students to begin college work at levels consistent with their academic background, thereby avoiding the repetition of material already mastered. These options also permit students to pursue more flexible schedules and reduce the time required for completion of graduation requirements. Students may be granted credit through these programs at the time of initial enrollment at Cleveland State University or subsequent to their matriculation. Credit granted through the following programs is not, however, applicable in the calculation of enrollment status (full-time, half-time, etc.) for the term in which it is completed or posted to the academic record.

Credit by Examination

- **Go to Testing Center Web site**

The four types of examination credit recognized by Cleveland State University are those earned through the Advanced Placement Program (AP), for which there is no limit on the number of credits that can be granted, the College Level Examination Program (CLEP) general exams, for which a maximum of 30 credit hours can be granted, the College Level Examination Program (CLEP) subject exams, for which a maximum of 30 credit hours can be granted, and departmental examinations, for which a 30-credit limit also exists.

The following regulations apply to the pursuit of credit by examination:

1. Credit is granted only to matriculated, degree-seeking students.
2. Credit granted for successful completion of an examination will be entered on the student's permanent record as hours earned. A grade is not assigned for such work.
3. If a student does not receive a score high enough to grant credit, no entry is made on his or her permanent record.
4. Credit will not be granted for areas of study or for particular courses in which the student has already earned or been granted equivalent Cleveland State credit.
5. Generally, Cleveland State does not approve for credit the score made when an examination has been repeated.
6. Credit will not be granted for a course in a learning sequence if the student has previously earned or been granted equivalent Cleveland State credit for a more advanced course in that sequence.
7. Credit earned through CLEP may not be applied toward the student's residence requirement. However, credit earned for departmental examinations may be utilized toward this requirement.

All students interested in pursuing credit by examination are urged to discuss their plans with an academic adviser prior to registering for the examination(s).

College Level Examination Program

The College Level Examination Program (CLEP) is offered under the auspices of the College Entrance Examination Board. The Examination Program consists of two components: general and subject examinations. Both types of examinations are administered through Cleveland State's **Testing Center**, as well as at other testing centers across the country.

Students seeking credit through CLEP after completing Cleveland State or other college-level work are cautioned to determine in advance with an academic adviser whether such credit will duplicate that already earned. Transfer students who have received credit through CLEP at another institution should have the official score report sent to the Office of the University Registrar for evaluation.

The general examinations comprise a series of five comprehensive exams in the areas of English, Humanities, Mathematics, Natural Science, and Social Science/History. Cleveland State requires a minimum score of 500 in order to grant credit for any of these examinations.

The subject examinations are end-of-course exams for 35 widely taught undergraduate courses representing a diverse range of academic disciplines. Cleveland State requires a minimum score of 52 in order to grant credit for any of these examinations. For certain examinations the student is required to complete an essay in addition to the objective section.

Departmental Examinations

End-of-course examinations are administered by various university departments. Each participating department's chairperson shall decide the grading and level of achievement required for credit from these exams. The Department of Modern Languages also provides examination opportunities in foreign languages not typically offered by the department, contingent upon the availability of a qualified examiner. Questions about this and other departmental exams for credit should be directed to the appropriate office. A fee is charged for each departmental exam attempted.

Military Training and Experience

Cleveland State University grants college-level credit for military training and experience in accordance with the credit recommendations provided by the American Council on Education. In order to have such work evaluated and added to the permanent academic record a student needs to submit to the Office of the University Registrar certified copies of any documentation related to these experiences, including official military transcripts or discharge forms. Decisions regarding the utilization of credit granted through this program shall be made at the discretion of the student's academic adviser.

Assessment and Accreditation of Prior Learning Experience (AAPLE)

- **Go to the AAPLE Handbook**

The Assessment and Accreditation of Prior Learning Experience (AAPLE) is a credit for life experience program offered by the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. The program is designed to award undergraduate academic credit to majors in urban studies for previous substantial learning experience in settings other than the classroom. Students may earn up to 24 credits through this program; fees are assessed at approximately one-half of the current tuition (per credit hour) rate.

Veterans' Educational Benefits

The veteran representative certifies the enrollment of veterans to the Veterans Administration (VA) for those students who have completed application for VA Educational Benefits to the Campus 411 Office. Once the application or change of program form is on file, certification of enrollment will be automatic. Students will still have to verify it on the VA's Web site under WAVE at the end of each month. Students with questions about their benefits or certification should speak with a specialist in Campus 411. All enrollments are subject to audit by the Veterans Administration. Any overpayment in veterans' benefits discovered through a VA audit will result in the veteran assuming liability for repayment.

Additional questions regarding VA educational benefits can be directed to the Cleveland State University Campus 411, University Center 162 or call 216-687-5411.

University Regulations

Family Educational Rights and Privacy Act of 1974 (FERPA)

Cleveland State University is required to give annual notice to students, or parents of students, of the rights granted by the Family Education Rights and Privacy Act (FERPA) of 1974. In accordance with this act you are notified of the following:

Right to Inspect

You have the right to inspect and review information contained in educational records maintained by Cleveland State University.

Right to Request Amendment

You have the right to request an amendment of an educational record that you believe to be inaccurate, misleading, or otherwise in violation of your FERPA rights. This includes the right to a hearing should the university decide not to alter a record according to your request.

Right to Prevent Disclosure

You have the right to restrict the release of information that may be disclosed on an unlimited basis by university personnel in response to oral or written requests. Certain exceptions to this rule are specified in the Act. See also **Student Rights Regarding the Release of Directory Information**.

Right to File a Complaint

You have the right to file a complaint with the U.S. Department of Education concerning any belief you have that Cleveland State University has failed to comply with the provision of FERPA. Written complaints should be directed to The Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue, SW, Washington, D.C. 20202-4604. Phone: (202) 260-3887. Fax: (202) 260-9001.

A copy of Cleveland State University's institutional policies on access to student records may be obtained by request from the Office of the University Registrar in UC 400 or viewed on the Web at **www.csuohio.edu/registrar/FERPA.html**. These policies set forth the procedures for inspection and amendment of educational records.

Student Rights Regarding the Release of Directory Information

The Family Education Rights and Privacy Act of 1974 (FERPA) as amended, prohibits Cleveland State University from disclosing or releasing a student's "education record" or personally identifiable information contained in that record without the student's consent. FERPA defines "education records" as "those records, files, documents and other materials which (i) contain information directly related to a student; and (ii) are maintained by an educational agency or institution or by a person acting for such agency or institution."

One of the exceptions to FERPA permits the university to release or disclose "directory information" about students without their consent. The university will release the following as "directory information" unless otherwise instructed by the student:

- Name
- Participation in officially recognized activities and sports
- Height and weight for members of athletic teams
- Dates of attendance
- Degrees earned and awards (honors) earned

Students who wish to restrict the release of the foregoing information can do so by submitting the Directory Information Restriction Request form to Campus411. The form can be found on the University Registrar's Web site under Downloadable Forms at **www.csuohio.edu/registrar**, or by coming in person to the Campus411. This restriction will remain in effect until you request in writing that it be removed. However, even if you file such a request, the university will release information as necessary if it is determined that disclosure is permitted by FERPA without prior consent (e.g., response to a subpoena, health or safety emergency, etc.). Refer to the University Registrar's Web site at **www.csuohio.edu/registrar** for more information on FERPA. Please be aware that if a student requests that the foregoing information be withheld, it will be withheld from a variety of sources, including friends, relatives, prospective employers, insurance agencies, honor societies, and the news media. Students should carefully consider the consequences of withholding such information before they do so.

Student Records

Right to Review Records

Students attending Cleveland State University have the right to review educational records which consist of official records, files, and data directly related to themselves which are maintained by department, college, or university offices. Personal files maintained by faculty or staff are excluded from coverage under this policy.

Medical and counseling records maintained by professional or paraprofessional physicians or counselors which are used in treatment or counseling with a student are deemed confidential and need not be shared with a student. Such records may be reviewed by a physician or other appropriate professional of the student's choice.

- Admissions Offices (Graduate and Undergraduate)
    - Admissions File
      (Records submitted by applicants are not available for inspection until admittance and registration of the student.)
- Alumni Office
    - Degree information for alumni
    - Names and addresses of alumni
- College Dean's Office
    - Student File
- College Departmental Offices

    - Student File
- College of Education--Student Personnel Service
    - College of Education student records will be maintained in this office rather than in the Education College Dean's Office. Under the Family Education Rights and Privacy Act (FERPA) of 1974, confidential materials submitted prior to January 1, 1975, are not available. Records that are available include: (undergraduate) academic records, students' written objectives, speech and hearing test results, T.B. test results, and schedules; (graduate) application, transcript, GRE test results or Miller Analogies Test results, and letters of recommendation.
- College of Law--Dean's Office
    - Admission file
    - Placement file
    - Student file
- CO-OP Office
    - Education file
    - Employer file
- Division of Collegiate Studies
    - Admission information
    - Diagnostic Test Information
- Judicial Affairs--Department of Student Life
    - University Judiciary Reports and Conduct Records
- Placement Office
    - Placement folders submitted by students for employment purposes
- Treasury Services
    - Student Financial Record
- University Police
    - Incident Report/ Crime Log
- University Registrar
    - Academic Record
    - Student Schedule
    - Residency Petition
    - Change of Name Record
    - Transcript Request File
    - Transient Record
    - Graduation Application File
    - Registration/Enrollment Materials
    - Veterans' Certification File

University Regulations

Grading

- **Credit Hour**
- **Grades with Quality Point Value**
- **Grades Without Quality Point Value**
- **Audit of Courses**
- **Grade Dispute / Grade Changes**
- **Grade-Point Average**
- **Satisfactory Unsatisfactory (S/U) Grading Basis**
- **Course Repeat Policy**

Credit Hour

The university is conducted on the semester plan, the school year being divided into two semesters, each lasting 15 weeks. Each semester credit represents approximately 15 hours of classroom instruction or the equivalent.

Grades with Quality Point Value

The following grades for undergraduate courses have quality point value and figure in the computation of the grade-point average.

A	—	4.0 quality points
A-	—	3.7 quality points
B+	—	3.3 quality points
B	—	3.0 quality points
B-	—	2.7 quality points
C+	—	2.3 quality points
C	—	2.0 quality points
D	—	1.0 quality points
F	—	0.0 quality points

Grades Without Quality Point Value

The following grades for undergraduate courses do not figure in the computation of the grade-point average:

#
— This notation is used to signify a course that has been repeated and for which a higher grade has replaced this grade (used prior to Spring 2007 term).

I - Incomplete Grade. An "I" grade can be assigned by the instructor when all three of the following conditions are met:

1. Student has the potential to pass the course;
2. Student has not completed all assignments for reasons deemed justified by the instructor;
3. The student has notified the instructor prior to the end of the grading period.

If all three conditions listed above are not met, the instructor has the option of assigning an "X" or of assigning a letter grade based on completed work. Please note that an "I" automatically becomes an "F" if not resolved by the last day of instruction of the following semester.

The grade of Incomplete (I) is given when the work in a course has been generally passing, but when some specifically required task has not been completed through no fault of the student .

The date assigned by the faculty member for completion of the work for undergraduate courses cannot be later than the last day of classes of the next term following the term in which the Incomplete grade was received. (The time limit may extend up to four weeks into the fall semester for Incomplete grades received during the spring semester.) For all cases, the time limit applies whether the student is enrolled or not. If a grade change is not submitted by the end of the time limit, the Incomplete becomes an F.

NC - No Credit. (Audit. **See explanation below.**)

S - Satisfactory includes SA, SB, SC grades. Equivalent to a C or better.

T - Temporary. A designation given at the end of the term when a course is scheduled to be continued beyond one term.

U - Unsatisfactory includes UD, UF grades. Equivalent to a D or F.

W - Authorized Withdrawal.

X
- X Grade. The grade of "X" can be assigned by the instructor when an attending/participating student has stopped attending/participating without notification and has not completed all assignments for reasons that cannot be determined by the end of the grading period. An "X" automatically becomes an F if not resolved by the last day of instruction of the following semester. Should the faculty member choose not to submit a grade for a student, e.g., student never attended, a grade of "X" will be assigned.

Audit of Courses (NC)

The grade of "No Credit" is given when a student enrolls in a course on the audit grading basis. Before registering for a course on this basis, a student must obtain authorization from the dean's office. Students who audit a course pay full tuition but do not earn credit for the

course. A course taken on an audit basis cannot be included in the calculation of enrollment status.

Only students who have been admitted to the university may audit a course. Students may not change the grading basis of a course after the last day to register without permission.

Grade Dispute/Grade Changes

Note: effective Fall 2006:

A faculty member may change a grade (1) because of an error in computation or (2) because of circumstances he or she deems "extraordinary" which bears on the appropriateness of the grade awarded. In order to initiate a grade dispute, the student should contact the course instructor. In either circumstance, the following procedures must be followed.

If the instructor agrees that the grade should be changed, the instructor must obtain the approval of the academic dean (or his or her designated administrator) for the change to take effect.

If the instructor does not agree the grade should be changed, the student may contact the department chair (program coordinator or designee) who should attempt to settle the dispute by gathering information from both the student and the instructor, and where possible, arranging a meeting with both parties. If the instructor now agrees that the grade should be changed, the instructor must obtain the approval of the academic dean (or his or her designated administrator) for the change to take effect.

If the faculty member or the administrator declines to approve a grade change, the student may petition the appropriate undergraduate college grade-dispute committee (typically the Admissions and Standards Committee) for relief. The student's petition must provide the basis for the claim. The college grade-dispute committee will consider the relevant documents and testimony of both student and instructor. That committee has final authority in deciding if there is substantial justification for the claim.

The decision and rationale of the undergraduate college grade-dispute committee must be forwarded to the University Admissions and Standards Committee which determines whether appropriate procedures have been followed. If the University Admissions and Standards Committee determines due process has been afforded, the decision of the college grade-dispute committee stands and there are no further appeals within the university.

In sum, a student's grade may be changed only if (a) the faculty member and the dean or dean's designee agree to the change, or (b) the college's grade-dispute committee determines that a grade change is justified and the University Admissions and Standards Committee determines due process was afforded. Grade changes are to be submitted with appropriate signatures (paper or electronic) to the Office of the University Registrar.

Note: Grade changes for "I" and "X" grades do not require approval beyond the individual faculty member if they are submitted within the stated time limits — the last day of instruction of the following semester, as specified in the section on "grading" in this catalog.

Grade-Point Average

A student's academic standing at Cleveland State University is expressed in terms of the grade-point average (GPA). This is determined by dividing the total quality points earned by the total credit hours attempted. All grade-point averages are carried to two decimal places unrounded.

Satisfactory/Unsatisfactory (S/U) Grading Basis

A student who has earned at least 30 credits may take one course each term on the S/U basis, up to the limit of four courses. A student on probation is not eligible to take courses on this basis.

Students may elect to enroll in any course on this grading basis except those in their major field and those which are specified in their curriculum by course number and/or course title. No more than one course completed on this basis may be used to satisfy an elective requirement in a minor field. Students may not change the grading basis of a course after the last day to register without permission.

The S grade is defined as C or better, and neither the S nor the U will have any bearing on the student's grade-point average.

Course Repeat Policy

The Course Repeat Option provides students who have done poorly the opportunity to repeat courses, up to two times. Students may use the "D or F Option" to attempt to increase their grade-point average (excluding pass/fail courses) using their new grade to replace their previous grade. The previous course(s) will remain on the official transcript for historical purposes only. Students may use the "C or Higher Option" for completion of program requirements that may require a higher grade than was initially received by the student.

Repeating "D" or "F" graded courses

- Courses may be repeated when any grade equivalent to a D or below which affects the grade-point average has been earned.
- Course Repeat Option may NOT be applied more than two (2) times to the same course.
- The letter grade earned in the most recent attempt will be included in cumulative credit totals and grade-point average, even if that grade is lower than the previous grade.
- Prior to Spring 2007, repeated courses and grades were recorded on the transcript and noted with a "#" indicating that the course has been repeated. Effective Spring 2007, repeated courses are designated with the comment "Course Repeated, Attempt Forgiven"
- All courses designated with a "#" or the "Course Repeated, Attempt Forgiven" comment will not be included in cumulative credit totals and grade-point averages and are not applicable toward graduation requirements.
- Course Repeat Option does not apply to courses which have an alternative repeat policy stated in their course descriptions. Academic programs may also restrict the use of Course Repeat Option.
- Course Repeat Option does not apply to courses graded S/U. Only courses for which a letter grade can be earned are covered by Course Repeat Option.

Repeating Courses graded "C" or Higher

Students may choose to repeat courses in which a grade of a C or higher is earned a maximum of two (2) times (depending on whether there are any restrictions specific to that course – **see course descriptions** in the Undergraduate Catalogue to determine if restrictions apply). However, courses repeated under these circumstances will have all earned grades calculated into the cumulative GPA and attempted hours and Course Repeat Option will not apply.

Note: Effective Summer 2005, this new comprehensive Course Repeat Option replaced the existing Course Repeat and Freshman Forgiveness policy. The Course Repeat Option is not retroactive to courses already repeated under prior policies. Students repeating courses originally taken on quarters or that do not have the same title, course abbreviation, or catalog number as the original course must

submit a **Course Repeat Form** to Campus411 in UC 162.

Academic Misconduct

The university policy on undergraduate academic misconduct is outlined in a statement available in the college offices. Initially, a faculty member is expected to deal with academic misconduct by assessing the appropriate penalty as recommended in the Academic Regulations section.

If a student disagrees with either the charge or the penalty, she or he may seek redress through the department chair and the dean. If academic misconduct is determined to have taken place, the student is informed of the decision, the penalty is imposed, and the misconduct recorded in the college and in the University Registrar's Office. The notation remains on the student's record for a period of three years or until the student graduates, whichever comes earlier. It is removed thereafter unless the student has been found guilty of a second offense.

The academic misconduct procedure provides for an appeal through the University Academic Misconduct Review Committee. If the committee determines that no violation has occurred, it will authorize the removal of the notation from the record. Otherwise, an appropriate penalty will be assessed.

Official Academic Transcripts

Students may request an official academic transcript via the Web (at **http://www.csuohio.edu/registrar/webtranscripts.html**), mail or in person at Campus411. Written authorization from the student along with payment is required before any order can be processed.

Transcripts will not be released for students who have an outstanding financial obligation to the university.

Additional information regarding transcript policies and procedures are available at **www.csuohio.edu/registrar/**

University Regulations

Academic Standing Rules for Undergraduate Students

All undergraduate students must maintain a minimum cumulative grade-point average (GPA) of 2.0 to remain in good standing.

Students will be placed on probation the first time that their cumulative GPA falls below 2.00 if their semester GPA is at least 1.00. Students who earn a semester GPA below 1.00, regardless of their cumulative GPA, will be reviewed by their college to determine whether probation or academic dismissal is the most appropriate academic standing.

Students who have earned 60 or fewer semester credits and who fail to achieve a cumulative GPA of 2.00 after a semester on probation will be reviewed by their college for continued probation or academic dismissal. Evidence of substantial academic improvement is required for continued probation.

Students who have earned more than 60 semester credits and who fail to achieve a cumulative GPA of 2.00 after a semester on probation will be automatically dismissed.

Students should direct inquiries regarding academic standing actions to their academic advising office.

Reassessment Eligibility and Process

The Academic Reassessment Policy is designed to facilitate the return to good academic standing of students who have accumulated poor grades in the early stages of their education at Cleveland State University.

A student is eligible for academic reassessment, after an absence of at least one calendar year, if (1) the student returns to Cleveland State University with no more that 90 semester credits earned and a cumulative CSU grade-point average of less that 2.00 and (2) the student successfully completes at least 16 semester credits with a CSU grade-point average of no less than 2.00 following the return. If a student's academic record indicates more than one absence of at least one academic year, no fewer than 16 semester credits must be successfully completed following the most recent absence in order for academic reassessment to be granted. An absence is defined as a period of time in which no enrollment activity, i.e., attempted or earned academic credit, is posted to a student's record.

If a currently enrolled, undergraduate degree-seeking student determines that academic reassessment is a viable option, the student must complete a Request for Academic Reassessment (**http://www.csuohio.edu/registrar/forms/reassessment.pdf**), obtain the written approval of an academic adviser and submit the form to Campus411 prior to the end of the fifth week of the semester or summer immediately following the successful completion of at least 16 credits with a CSU grade-point average of no less than 2.0. A Request for Academic Reassessment will not be considered if it is received after the stated submission deadline.

If, upon return to Cleveland State University, a student fails to complete 16 semester credits with a CSU grade-point average of at least 2.0 and is ineligible for academic reassessment, the student will be subject to the university's academic policy.

Result

Once a Request for Academic Reassessment is submitted and approved, all courses completed prior to the student's most recent absence of at least one calendar year from the university with any grade equivalent to a D or below that affects the grade-point average will be reassessed. Reassessment means the Office of the University Registrar will insert a notation on the official academic record to indicate that the course has been reassessed, is not included in the cumulative credit totals and grade-point average, and is not applicable toward graduation requirements. Academic Reassessment will only be granted once.

Academic Honors

- **President's List**
- **Dean's List**
- **Graduation Honors**

President's List

An undergraduate student taking 15 credits or more during a semester who has earned a grade-point average of 3.9 or above during that semester is placed on the President's List for outstanding academic achievement. The President's List is calculated on credits earned in course work for which grades of A through F are given. Credit earned in a course for which the grade of Satisfactory is achieved will not be counted as part of the 15 semester-credit minimum.

Dean's List

A full-time student (12 credits or more per semester) or a part-time student completing a 12-hour step, who has earned a grade-point average of 3.25 or better, is placed on the Dean's List for excellent academic performance. The Dean's List is calculated on credits earned in course work for which grades of A through F are given. Credit earned in a course for which the grade of Satisfactory is achieved will not be counted as part of the 12 semester-credit minimum for full-time status.

Graduation Honors

Students who have earned cumulative grade-point averages, calculated to two decimal places unrounded, between 3.30 and 4.00, graduate with the following honors:

3.30-3.59 Cum Laude
3.60-3.79 Magna Cum Laude
3.80-4.00 Summa Cum Laude

Graduation Honors for Transfer Students

If a student has transferred to Cleveland State University, graduation honors will be based on the average for Cleveland State

University work or the average for all college work, whichever is lower. In determining the grade average for graduation honors, the Cleveland State University method of computing grade-point averages will be used.

Credit Hour, GPA, and Degree Applications

- **Introduction**
- **Residence Requirements**
- **Application for Graduation**
- **Second Degree**
- **Presence at Commencement**

- **Go to Commencement Web site**

Introduction

The faculty of each college determines the minimum credit hours and cumulative GPA a student in that college must earn in order to graduate. In no case shall a student graduate with fewer than 120 semester credit hours or a cumulative GPA of less than 2.00.

If a student receives an Incomplete (I) or (X) grade during her or his final semester, the date of graduation will be the end of the semester in which the instructor submits the grade change to the Office of the University Registrar.

Residence Requirements

To earn a bachelor's degree at Cleveland State University, there is a residence requirement which is: the last 30 credit hours, and 24 credits of upper-division course work, must be earned in residence at Cleveland State. The smaller of 16 credits or 50 percent of the departmental credits comprising a major must be earned in residence at Cleveland State. The smaller of nine credits or 50 percent of the departmental credits comprising a minor must be earned in residence at Cleveland State University.

Residency is defined as credit earned at Cleveland State or through an approved program such as the National Student Exchange or Study Abroad Programs.

Application for Graduation

A student intending to graduate can obtain a graduation application form from her or his academic advising office and must submit it to the Office of the University Registrar by the appropriate deadlines. Please visit **www.csuohio.edu/registrar/graduation.html** for the most current listing of submission deadlines.

The university does not determine or pre-suppose a student's intent to graduate. The student is required to formally record their intent to graduate by submitting an application for graduation. The student must satisfy all completion requirements. If completion requirements have not been met at the end of the graduating semester, the student will be advised accordingly in writing by the Office of the University Registrar. The student is responsible for notifying the Office of the University Registrar once requirements have been met. The student must also ensure that any administrative or other requirements are met before notifying the Office of the University Registrar. These requirements include, but are not limited to, payment of tuition fees, grade changes and course substitutions.

In order to preserve the integrity of the student's academic record and the credibility of a degree awarded by Cleveland State University, the Office of the University Registrar will not confer degrees retroactively unless there is clear evidence of extraordinary circumstances as deemed by the dean of the college. Authority to approve Retroactive Graduation for undergraduate students lies with the Vice-Provost of Enrollment Services.

Second Degree

A student may earn two different baccalaureate degrees in the same college or one degree from each of two colleges. In either case, the student must complete all the requirements for both degrees. The student may receive each degree by applying and paying the fee for each.

A student who has received a bachelor's degree from another accredited college or university may earn a bachelor's degree at Cleveland State University by fulfilling all college and major-field requirements and the 30-credit residence requirement.

Presence at Commencement

All eligible degree candidates are encouraged to attend the appropriate commencement ceremony. In order to participate in the commencement ceremony, a student must have completed or be currently attending all courses necessary to satisfy degree requirements. A student who completes her or his degree requirements during the summer is eligible to participate in the subsequent fall commencement ceremony.

Cleveland State University is unable to send letters to foreign embassies asking that citizens of their country be provided with visas so that they may attend commencement ceremonies at Cleveland State. We encourage such citizens to use the mechanisms already available to them in their countries to request a visa to visit the United States.

Catalog Rights

Degree candidates are responsible for meeting university graduation requirements stated in the Cleveland State University Catalog for the academic year in which they are admitted to Cleveland State University. These graduation requirements are known as catalog rights. Colleges reserve the right to alter the content of courses, add and delete courses, and change required curricula. It is the student's responsibility to remain informed about such changes through regular interaction with their adviser in monitoring progress towards graduation. No university official can relieve students of this responsibility.

Students who interrupt their enrollment in the university for one full academic year or longer, consecutively, including summer, must meet the university graduation requirements of the catalog in effect when they return.

In all instances, students who return to Cleveland State University after enrolling at another college or university (except with transient or cross-registration permission) must follow the university graduation requirements of the catalog in effect at the time of

their readmission.

Students transferring from Cuyahoga Community College, Lakeland Community College or Lorain County Community College have **special catalog rights**.

General Education Requirements

A comprehensive description of Cleveland State University's General Education Requirements (GenEd) for undergraduate students is available online at **http://www.csuohio.edu/acaffairs/gened.htm**.

Students are responsible for ensuring the appropriate selection of courses to satisfy GenEd requirements and are encouraged to consult with their academic adviser regarding the applicability of selected courses.

Requirements (General Education) for Semesters

(Approved May 8, 1996 by the Faculty Senate; Effective beginning Fall 1998)

Field	General Education Requirements	Credits	In Transfer Module
English Composition and Writing	• English 101 (English I) Fundamentals of expository writing and the reading of expository prose; word processing instruction; general information literacy.	4	Yes
	• English 102 (English II) or other approved courses. The course may be taught for a discipline or generalized for all. Course topics will include: research techniques and critical thinking appropriate for discipline; methods of argument; clarity of organization and expression; preparation of longer writing projects; and information literacy specific to the discipline. Comments: *The passing grade for English 101 and 102 is "C" or better.*	2-3	Yes
	• Writing Across the Curriculum (Writing) — three courses. For transfer students: Juniors (60-89 credit hours) must complete two courses; seniors (at least 90 credit hours) must complete one course. Comments: *Students must demonstrate satisfactory performance (C or better) in the writing required in order to receive a C in the course and satisfactorily complete that portion of the WAC requirement.*	3 courses	No
Mathematics and Logic	• 100/200-level mathematics courses offered by the Mathematics Department or other approved courses. Each course must have as its prerequisite three years of college preparatory mathematics at the high-school level (or their equivalent). Students may choose to satisfy one-half of this requirement by taking PHL 131.	6	Yes
Arts/ Humanities	• 100/200-level courses from at least two different departments of Art, Dramatic Arts, Music, English, History, Modern Languages, Philosophy (except logic courses) and Religious Studies, or other approved courses.	9	Yes
Social Science	• 100/200-level courses from at least two different departments including the departments of Anthropology, Sociology, Political Science, Social Work, Psychology, Economics, Communication, Urban Studies, courses labeled "Social Science" (SSC) or other approved courses.	9	Yes
Natural Science	• 100/200-level courses offered by the departments of Biology, Chemistry, Geological Sciences and Physics or other approved courses. At least one of the courses must have a laboratory component which	8-9	Yes

Expenses and Financial Aid

On this page:

- **Back to General Information**
- **Expenses and Financial Aid Index**
- **Financial Aid**
- **Student Enrollment Changes that Can Reduce Financial Aid Eligibility**
- **Satisfactory Academic Progress Standards**
- **Go to Office of Treasury Services Web site** for fees, refunds, payment plans, and other student account information.
- **Go to Financial Aid Web site**

- For Fees, Refunds, Payment Plans, and all other student account information: **Go to the Office of Treasury Services Web site**

- **Financial Aid**
- **Student Enrollment Changes that Can Reduce Financial Aid Eligibility**
- **Satisfactory Academic Progress Standards**

Expenses and Financial Aid

Financial Aid

- **Introduction**
- **Financial Aid Application Process**
- **Employment Options**
- **Types of Financial Aid**
- **University Scholarships and Grants**
- **Federal Aid Programs**
- **State Supported Programs**
- **National Guard Scholarship Program**
- **Private Scholarships**
- **Scholarship Opportunities for New Freshmen and Transfer Students**
- **Part-Time Students**
- **Renewals**
- **Concurrent Enrollment**
- **Professional Judgment**

Introduction

Cleveland State University's financial aid programs help students who might otherwise be unable to attend the university. Over two-thirds of Cleveland State students receive some form of financial assistance. The university participates in or administers federal and state grant and loan programs. In addition, Cleveland State provides university grants and scholarships for many students. Our goal is to help reduce the difference between educational costs related to attendance and the amount that parents and students can reasonably contribute toward the student's education.

Eligibility for financial aid, including loans, is determined by the results of the Free Application for Federal Student Aid (FAFSA). Students interested in scholarship assistance should file the FAFSA and complete the CSU scholarship application. Students must complete the FAFSA and meet all federal eligibility requirements each year in order to be eligible for financial aid. The major sources of financial aid are **university scholarships and grants**, **federal aid programs**, **state-supported programs**, and a number of sponsored scholarships described in this section.

If you need in-person assistance, please go to Campus411 located on the ground floor in University Center, Room 162. You can also call us at (216) 687-5411 or visit our Web site at **www.csuohio.edu/financialaid/**.

Financial Aid Application Process

Students need to complete the Free Application for Federal Student Aid (FAFSA) or the Renewal Application for Federal Aid to determine eligibility for federal, state, and campus-based aid programs. The FAFSA is available each January online at: **http://www.fafsa.ed.gov/** Applications should be completed as soon as possible after January 1 to assure timely processing.

Applicants are encouraged to file their FAFSA or Renewal FAFSA at **http://www.fafsa.ed.gov/**. A link is provided on our Financial Aid Web site: **www.csuohio.edu/financialaid/**. The Cleveland State University code number is 003032.

Students planning to attend CSU should complete the FAFSA or the Renewal FAFSA by February 15, our priority filing date. Students filing after the priority filing date may not be considered for some resources. These include: the Supplemental Educational Opportunity Grant (SEOG), the Federal Perkins Loan Program, the Federal Work Study Program, the University Grant, and the Residence Hall Grant.

To receive financial aid or a determination of eligibility for financial aid, students must be admitted into a degree-granting program at Cleveland State. Audited classes are not financial-aid eligible.

Students and parents may be required to submit documentation verifying information reported on the FAFSA. The Financial Aid Office will notify you in writing if additional information is required or if you have been selected for the verification process.

Employment Options

- **Student Employment Program**
- **Cooperative Education**
- **Internships**

Student Employment Program

All students enrolled at Cleveland State for at least six credit hours are eligible to participate in the Student Employment Program. This includes students who have received a Federal Work Study (FWS) award, as well as students who do not have this federal award. In a typical academic year, approximately 2,000 student employment opportunities exist throughout the campus. Students employed on campus can earn money to help pay for their education, develop valuable career skills, and have the added convenience of working flexible hours without additional commuting time. Student positions are conveniently posted on the student employment link of the Financial Aid Web site or by clicking "Employment" from the CSU home page.

Cooperative Education

- **Go to Career Services' Cooperative Education page**

The Cooperative Education Program provides opportunities for paid work experiences in a field related to the student's major. Contact the Career Services Center (687-2233) for more information on how to qualify for this program.

Internships

Internships are degree-related work experiences for which academic credit is earned. Internships typically are not compensated employment. To learn more about internship requirements and opportunities in your field, contact your academic adviser or department chair.

Definitions of Types of Financial Aid

Scholarships/Grants: Awards that do not require either repayment or any specific service to be performed by the student.

Loans: Money offered with the requirement that it be repaid.

Employment: Money that must be earned through employment.

University Scholarships and Grants

University Scholarships

University scholarships and grants are awarded to students in amounts ranging from $100 up to full tuition.

University Grants

University grants are funded by Cleveland State University to help students meet their tuition and cost of enrollment. University grants are available to undergraduates who are enrolled at least half-time. Eligibility is determined by the Financial Aid Office on the basis of need and the availability of funds. Applications received by February 15 for the upcoming award year will receive priority consideration.

Federal Aid Programs

- **Federal Pell Grants**
- **Federal Supplemental Educational Opportunity Grants**
- **Federal Academic Competitiveness Grant**
- **Federal National Science and Mathematics Access to Retain Talent Grant (National SMART Grant)**
- **Federal Perkins Loan Program**
- **Federal Work-Study Program**
- **Community Service Learning**
- **Subsidized Federal Stafford Student Loan**
- **Unsubsidized Federal Stafford Student Loan**
- **Federal Graduate Plus Loan**
- **Loan Disbursements**

Federal Pell Grants

This is a federally funded grant program. Eligibility for the Pell Grant is determined from FAFSA information. Amounts vary based a review of your FAFSA, the expected family contribution (EFC), and your semester credit hour enrollment (e.g., full-time or part-time). Pell grants typically range from $200 to $4,050.

Federal Supplemental Educational Opportunity Grants (SEOG)

This is a federally funded grant program established to help students with exceptional financial need meet their educational costs. Eligibility is determined by the Financial Aid Office on the basis of financial need and the availability of funds. Applications received by February 15 for the upcoming academic year will receive priority consideration. Amounts of this grant typically range from $100 to $4,000.

Federal Academic Competitiveness Grants (ACG)

This is a federally-funded grant program available for the first time for the 2006-2007 school year for first-year students who graduated from high school after January 1, 2006, and for second-year students who graduated from high school after January 1, 2005. The ACG provides to $750 for the first year of undergraduate study and up to $1,300 for the second year of undergraduate study to full-time students who are U.S citizens, eligible for a Federal Pell Grant, and who had successfully completed a rigorous high school program, as determined by the state or local education agency and recognized by the Secretary of Education. Second year students must also have maintained a cumulative GPA of at least 3.0.

Federal National Science and Mathematics Access to Retain Talent Grant (National SMART Grant)

A National SMART Grant provides up to $4,000 for each of the third (minimum 60 earned credit hours) and fourth years of undergraduate study to full-time students who are U.S. citizens, eligible for a Federal Pell Grant, and majoring in physical, life, or computer sciences, mathematics, technology, or engineering or in a foreign language determined critical to national security. The student must also have maintained a cumulative GPA of at least 3.0 in coursework required for the major.

Federal Perkins Loan Program

This program is a federally-funded loan program designed to help students meet the cost of their education. Eligibility is determined on the basis of financial need. Awards average from $500 to $4,000 per year. Undergraduate students may borrow up to $4,000 for each year of undergraduate study up to a maximum of $20,000. A student may borrow up to $40,000 for combined undergraduate and graduate study.

Perkins Loan borrowers are required to complete an online Perkins Master Promissory Note that outlines the borrower's rights and

responsibilities. Students must complete a master promissory note before their loan funds can be disbursed.

Repayment of student loans begins nine months after the student graduates, leaves school, or enrollment drops below six credit hours. Students have a maximum repayment period of 10 years.

Federal Work-Study Program

This is a federally-funded employment program. Eligibility is determined by the Financial Aid Office on the basis of financial need and the availability of funds. Applications received by February 15 for the upcoming academic year will receive priority consideration.

This award gives students with financial need the opportunity to work on-campus or in a community-service position.

Students are limited to 20 hours of work per week when classes are in session. Students must be enrolled for a minimum of six credit hours to participate in this program. Hourly pay rates vary based on the position.

Federal work-study funds are usually awarded in combination with grant and/or loan funds. The university promotes the idea that a part-time job should complement the student's program of study whenever possible.

Student positions are conveniently posted on the student employment link of the Financial Aid Web site or by clicking "Employment" from the CSU home page.

Community Service Learning

Community Service Learning is an off-campus Student Employment Program. Eligible Cleveland State students must have a Federal Work Study award to participate in this program. Students participating in the Community Service Learning Program may be placed in positions at non-profit agencies throughout Greater Cleveland. Positions are limited, so you must check with the Student Employment staff for more information by calling (216) 687-5577.

Subsidized Federal Stafford Student Loan

The Subsidized Federal Stafford Loan program is a need-based program in which the federal government defers the principal and subsidizes the interest while the student is enrolled for at least six credit hours. Students must complete a FAFSA and a master promissory note.

The Financial Aid Office certifies a student's eligibility for the loan based on the student's maintaining satisfactory academic progress and the student's willingness to repay the loan. The amount a student may borrow is determined by the student's grade level and the cost of education, minus the expected family contribution and estimated aid.

The loan limits are $2,625 for freshman borrowers (0-29 earned credit hours), $ 3,500 for sophomore borrowers (30-59 earned credit hours), and $5,500 for junior and senior borrowers (60+ earned credit hours), with an undergraduate cumulative maximum of $23,000. A variable interest rate is adjustable July 1 with an 8.25% cap. Students have a six-month grace period and a minimum $50 per month repayment with 10 years to repay the loan. All first-time borrowers at Cleveland State University must complete debt management counseling prior to the release of loan funds.

Unsubsidized Federal Stafford Student Loan

This loan program is available to students who may not qualify for the Subsidized Federal Stafford loan.

Interest is charged from the time the loan is disbursed until it is paid in full. Students may pay the interest while enrolled in school or allow it to accumulate and be added to the principal amount of the loan.

Independent (based on Federal Financial Aid definition) undergraduate students may borrow up to $4,000 their freshman and sophomore years, and a maximum of $5,000 a year after having earned 60 or more credit hours.

The loan amounts listed are the maximum loan limits under the Federal Family Loan Program. However, students cannot borrow in excess of the cost of education at Cleveland State University minus any eligible financial aid. The interest rate is variable and not to exceed 8.25%.

Federal PLUS Loan (Parent Loan for Undergraduate Students)

This loan program is for parents of undergraduate students. The current interest rate is variable, not to exceed 9%. Eligible parents may borrow up to the cost of education minus estimated financial aid.

Federal Graduate Plus Loan (GRADPLUS)

This is a new federal loan program (effective fall semester 2006), for degree-seeking graduate and law students. Graduate and Law school students can use a loan to bridge the gap between the financial aid they receive, including Stafford loans, and their cost of attendance. The interest rate is fixed at 8.5%. A credit check is required to take out a GradPlus loan. GradPlus loan repayment begins within 60 days after the funds are fully disbursed – or if an in-school deferment is obtained, within 60 days after the deferment ends

Loan Disbursements

Federal subsidized, unsubsidized, Federal PLUS loan and private loan proceeds are forwarded directly to the Cleveland State University's Office of Treasury Services.

State Supported Programs

- **Ohio Instructional Grant**
- **Ohio College Opportunity Grant**
- **Part-Time Ohio Instructional Grant**
- **Ohio Academic Scholarship Program**
- **Ohio War Orphans Scholarships**

Ohio Instructional Grants (OIG)

OIG is a state-funded grant program for Ohio residents only. Students must be enrolled full-time, 12 credit hours, to receive this grant. The program is designed to aid students from low- and middle-income families. Ohio residents attending public institutions who qualify on the basis of financial need will receive between $78 and $2,190 per academic year. Students who are eligible for OIG will not be considered for the OCOG program.

Ohio College Opportunity Grants (OCOG)

The OCOG is a new state-funded grant program for students who began college for the first time in the 2006 – 2007 academic year or later. Grant amounts are determined based on the federal expected family contribution and credit hour enrollment. Grants range from $78 to $2496. Students who are eligible for OCOG will not be considered for the Ohio Instructional Grant.

Part-Time Ohio Instructional Grant (OIG)

This is a state-funded grant program available to students who meet the eligibility requirements of the OIG, but who are enrolled for less than 12 credit hours. Award amounts cannot exceed the cost of tuition.

Ohio Academic Scholarship Program

This is a state-funded scholarship program to assist undergraduate students who exhibit exceptional academic ability. High school seniors who are residents of Ohio and who plan to attend an approved Ohio institution of higher learning on a full-time basis may apply.

Recipients are chosen by the Ohio Board of Regents on the basis of grade-point average and performance on a competitive examination. The scholarships may be awarded in the amount of $2,205 per academic year for up to four years.

Ohio War Orphans Scholarships

This undergraduate tuition scholarship is awarded on a renewable basis to children of members or former members of the U.S. Armed Services who incurred a disability or died while in service. This program is sponsored through the Ohio Board of Regents.

Each recipient must have a cumulative grade-point average of at least 2.0 by the end of the freshman year and must maintain no less than a 2.0 cumulative grade-point average for each subsequent academic term. The student must also be enrolled for at least 12 credit hours to receive this scholarship.

National Guard Scholarship Program

The state of Ohio funds this program to assist persons who enlist in the Ohio National Guard for at least six years. Awards cover the cost of instructional and general fees.

Eligible guardsmen should contact the Adjutant General's Office to apply for this program.

Expenses and Financial Aid

Financial Assistance

Private Scholarships

Private scholarship money comes from a variety of sources, including individuals, corporations, professional associations, organizations, alumni, and the university. The wide range of scholarships reflects the varied interests of the donors. The aim of all donors is to provide financial support to help students achieve their academic endeavors at Cleveland State University.

Descriptions of many of the scholarships awarded by the Financial Aid Office are listed on our Web site at **http://www.csuohio.edu/financialaid/scholarships**. It is recommended that all students complete the Free Application for Federal Student Aid (FAFSA) yearly for consideration for federal, state, need and non-need based assistance.

Unless otherwise indicated, a scholarship application is required. Awards are subject to change based on the donor's wishes and/or the availability of funds.

Expenses and Financial Aid

Financial Assistance

Scholarship Opportunities for New Freshmen and Transfer Students

A separate application is required for the scholarships listed on the **Financial Aid Scholarships Web site**. Applicants should note the specific requirements and deadline dates listed. Students may request the *Scholarships and Financial Aid Information for New Students entering Cleveland State University*
brochure and application from their high school guidance department, Cleveland State University Undergraduate Admissions, or Campus 411. It is recommended that all students complete the Free Application for Federal Student Aid.

Part-Time Students

A large number of part-time students support themselves through full-time employment while working toward a degree. Depending on financial circumstances, part-time undergraduate students may qualify for federal, state and/or university financial assistance. Part-time students are also encouraged to file the FAFSA.

Renewals

Scholarships, grants, and loans are available annually as long as students maintain the required standards of academic progress and demonstrate financial need. Students must reapply for financial assistance each year.

Previous-year aid recipients should file the renewal application for federal student aid.

Concurrent Enrollment

- **Go to Financial Aid for Transient Students Web site**

Professional Judgment

- **Introduction**
- **Adjustments to Cost of Attendance**
- **Changes in Dependency Status**
- **Adjustments to Expected Family Contribution Calculation**

Introduction

This section defines the components of professional judgment decisions and the guidelines used by the Cleveland State University Financial Aid Office. Professional judgment represents a key element in the student financial assistance delivery system — that is the capacity for personal intervention by the Financial Aid Office in cases that merit individual attention. In these cases, the family's situation is weighed to render a professional judgment about the support the family can reasonably be expected to provide toward the student's educational expenses.

Adjustments to Cost of Attendance

A student's assessed cost of attendance may be reviewed upon receipt of the completed Special Circumstance Form (**http://www.csuohio.edu/financialaid/forms/07V91.pdf**). Reviews will be conducted by the Appeal Committee. Students will be notified of the result of the appeal within 15 working days following the receipt of the appeal documents.

Circumstances that may merit a review include but are not limited to:

- special transportation expenses,
- special expenses related to a handicap,
- dependent/elder care,
- miscellaneous expenses.

Documentation of additional or unusual costs will generally consist of signed statements and documentation of the expense. A statement from an individual with specific knowledge of the expense, receipts of purchases, or other items necessary to substantiate the claim should be submitted with the request.

Changes in Dependency Status

Requests for a dependency status override are considered by the Appeal Committee for applicants desiring to have their status changed from dependent to independent. Interested students should complete the Special Circumstance Form**(http://www.csuohio.edu/financialaid/forms/**). Requests should be received within 30 days of the beginning of any semester for consideration in that semester. The committee will notify students of its determination after the receipt and review of all requested documentation.

Circumstances meriting review may include but are not limited to:

- abandonment by parents, parents' whereabouts not known;
- student under 24 years of age, without legal dependents,
  who has been married but is now divorced and is receiving no parental support;
- other cases, based on individual merit.

Students requesting a dependency status review should submit copies of their parents' tax returns, unless the reviewer has determined that such information is not available (as in the case of abandonment). Students requesting review should also submit signed statements from their parents detailing the type and value of support provided the student during the appropriate calendar year(s) preceding the academic year in question.

If the parents are unable or unwilling to comply with the university's requests, the student will be required to document their claim. This documentation includes written support by an acceptable third party, such as a clergy, counselor, or other official.

Students requesting review will be required to document self-sufficiency and ability to meet basic living costs. Exceptions to the documentation requirement may be allowed at the discretion of the Appeal Committee, when documented mitigating circumstances exist. Unusual circumstances must always be explained in writing and corroborated by an outside source (social worker, counselor, other official).

Adjustments to Expected Family Contribution Calculation

The expected family contribution (EFC) may be reviewed upon receipt of the completed Special Circumstance Form (located on our Web site at **http://www.csuohio.edu/financialaid/forms/**). Reviews will be conducted by the FAO Appeal Committee. Students will be notified of the results of the review within 15 working days after receipt of all documentation.

The Appeal Committee will assess the inclusion of an expected contribution from a non-custodial parent, a stepparent, or the parental support of an independent student. Nontaxable income and benefits will be assessed according to the standard methodology or modified as necessary to take into account special circumstances. If substantial assets are reported or uncovered, the Appeal Committee may inquire about the nature of the assets and consider them in the decision about the EFC to the education of the student from those assets.

Other elements may also be considered when assessing adjustments to the EFC calculation, for special circumstances that fall under *one* or *more* of the items below:

- dependency;
- medical/dental expenses not covered by other agency or insurance;
- elementary/secondary school expenses;
- other unusual expenses.

When appropriate, additional supporting documentation required by the Appeal Committee will be verified to be acceptable.

Adjustments to the elements assessed in the EFC calculation will be documented in the student's file with notations signed by a financial aid professional.

Expenses and Financial Aid

Student Enrollment Changes that Can Reduce Financial Aid Eligibility

- **Dropped Courses**
  - **Federal Pell Grants**
  - **Ohio Instructional Grants**
  - **Ohio College Opportunity Grants**
  - **Federal Stafford and PLUS loans**
  - **SEOG, Perkins Loans, Federal Work Study**
- **Official Withdrawal from the University**
- **Unofficial Withdrawal from the University**
- **Retroactive Official Withdrawals**

Introduction

There are three types of enrollment changes that can reduce a student's financial aid eligibility after aid has been disbursed. These are:

- **dropped courses** - the course will not appear on the transcript,
- **official withdrawal** - withdrawal from all courses in a term (W grade),
- **unofficial withdrawal**
  - withdrawal from all courses within a term; student does not receive any earned grades (A, B, C, D, F, I, T, SA, SB, SC, UD and UF). Student has not withdrawn officially.

NOTE:
Enrollment changes may affect your eligibility for aid. Before adding or dropping, students are strongly encouraged to meet with their academic adviser and Campus411. Students must maintain a minimum of half-time (6 credit hours) in order to maintain Stafford and PLUS loan eligibility. For detailed information regarding enrollment changes and the impact on your financial aid, visit the **financial aid Web site**.

Dropped Courses

When a course is dropped, the course will not appear on the student's academic transcript. Drops occur during the published drop period.

Regardless of when the course drop occurs,
dropping courses can affect the aid types listed below (and may affect others). If the award reduction/return of funds creates a balance owed on the student account, the student will receive a bill from the university.

Federal Pell Grants:
Pell grants are based on the student's enrollment status: full-time awards (12 or more hours), 3/4-time awards (9-11 hours), half-time awards (6-8 hours) and less-than-half-time awards (1-5 hours). If the course drop results in a student no longer being enrolled in sufficient hours for the Federal Pell Grant that he or she received, the Pell Grant must be reduced to match the new enrollment status.

Ohio Instructional Grants (OIG):
Students must be enrolled full-time (12 or more hours) to receive OIG. If the course drop results in a student no longer being enrolled full-time, the OIG must be returned to the state.

Ohio College Opportunity Grants (OCOG):
OCOG grants are based on the student's enrollment status: full-time awards (12 or more hours), 3/4-time awards (9-11 hours), half-time awards (6-8 hours) and less-than-half-time awards (1-5 hours). The OCOG Grant must be reduced to match the new enrollment status.

Federal Stafford and PLUS loans:
Students must be enrolled at least half-time (6 or more hours) to be eligible for a Stafford or PLUS loan. If the course drop results in a student being enrolled for less than 6 hours, all Stafford and PLUS loan funds must be returned to the lender.

SEOG, Perkins Loans, Federal Work Study:
University regulations require that students be enrolled at least half-time (6 or more hours). If the course drop results in a student being enrolled for less than 6 hours, all SEOG and Perkins funds must be returned. All FWS earnings must be transferred to university employment.

Official Withdrawal from the University

When a student requests and receives a "W" in all courses, she or he is considered to have officially withdrawn from the university. Students who withdraw prior to completing 60% of the term have not earned all of their federal financial aid and a Return of Funds calculation must be performed. The unearned portion of the aid (based on the percentage of the term remaining) is returned to the lender or aid program.

For example, if a student completes only 20% of the term, then he or she has failed to earn 80% of the federal financial aid that was disbursed, or could have been disbursed, prior to the withdrawal. If the return of the funds creates a balance due on the student's account, the student will receive a bill from the university.

Unofficial Withdrawal from the University:

Students who stopped attending all of their classes prior to the end of the term and who do not receive ANY earned grades (A, B, C, D, F, I, T, SA, SB, SC, UD and UF) are considered to be unofficial withdrawals. Fifty percent of the aid used to pay direct educational costs (tuition, fees, room and board) must be returned to the lender or aid program. If the return of the funds creates a balance due on the student's account, the student will receive a bill from the university.

Retroactive Official Withdrawal from the University

If funds have been returned for a student as a result of an unofficial withdrawal, tho se funds cannot be reinstated, even if the student petitions for and receives a retroactive official withdrawal (all W grades).

Expenses and Financial Aid

Satisfactory Academic Progress Standards

- **Introduction**
- **Grade-Point Averages**
- **Completion Rate Requirement**
- **Maximum Time Frame for Degree Completion**
- **Impact of Selected Grades**
- **Financial Aid Probation**
- **Loss of Eligibility**
- **Regaining Eligibility**
- **Petition for Reinstatement of Financial Aid Eligibility**

Introduction

Students must achieve satisfactory academic progress (SAP) toward their degree in order to maintain eligibility for most types of financial aid. To maintain SAP students must meet the following three components: grade-point average, completion rate requirement, and maximum time frame for degree completion. Additionally, students must be eligible to continue in their program of study.

Satisfactory academic progress is evaluated at the end of each term for which the student is in attendance. Students who do not meet the grade-point average and completion rate requirements are given one term of financial aid probation. Failure to meet all the requirements (grade-point average, completion rate requirement, and maximum time frame for degree completion) at the end of the probationary term will result in loss of federal financial aid, as well as state and institutional need-based financial aid. Students who do not earn their degree within the specified time frame become ineligible for financial aid as soon as they reach the specified maximum time frame for their program of study.

Students may petition to have financial aid reinstated. See **Regaining Eligibility** and complete the SAP Petition for Financial Aid found at **http://www.csuohio.edu/financialaid/forms/**.

Grade-Point Average (GPA) Requirements

Undergraduate Students: All undergraduate students must:

- maintain a minimum cumulative GPA of 2.0 and
- earn a term GPA of not less than 1.0.

Students who fail to maintain a cumulative GPA of 2.0 or receive a GPA below 1.0 for any given term will receive one term of financial aid probation. Students who do not meet the GPA requirements at the end of their probationary term are ineligible to continue receiving financial aid.

Graduate Students*:* All graduate students must:

- maintain a minimum cumulative grade-point average of 3.0 and
- remain eligible to continue in their program of study at CSU. Students who are dismissed by the university or by their graduate college are ineligible for federal financial aid for the program from which they were dismissed.

  Students who are dismissed by the university or by their graduate college are ineligible for federal financial aid for the program from which they were dismissed.

Law Students: All law students must:

- maintain a cumulative grade-point average of 2.0 upon the completion of their first spring semester and all semesters of attendance thereafter, including summer.

Completion Rate Requirement

See **Impact of Selected Grades on SAP Requirements** *regarding the treatment of incomplete grades, withdrawals, the absence of letter grades and the treatment of transfer credits in the measurement of Completion Rate Requirement*.

Undergraduate, Graduate and Law:

Students must successfully complete at least two-thirds of their attempted credit hours each term. Successful completion is defined as receiving a grade of A, B, C, D or S. Multi-term courses, in which a “T” grade is assigned pending completion of the final term, are treated as being successfully completed during the initial term.

Maximum Time Frame for Degree Completion

See **Impact of Selected Grades on SAP Requirements** *regarding the treatment of incomplete grades, withdrawals, the absence of letter grades and the treatment of transfer credits in the measurement of Maximum Time Frame*.

Undergraduate Students:

Students are ineligible for federal financial aid once they have attempted credit hours that equal or exceed 150% of the credit hours required for their program of study.

- Bachelor's Degree: 192 attempted credit hours

***Graduate Students*:** must complete their degrees within the following time frames:

- Six years from the date of entry into the graduate college to complete the master's degree.
- Six years from the date of entry into the doctoral program to complete doctoral studies, if the student entered the program with a master's degree from another university or interrupted his/her studies after completing the master's degree program at Cleveland State University.
- Ten years from the date of entry into the graduate college to complete a doctorate, if the student enrolls consecutively in the master's and doctoral programs without interruption of one academic year following receipt of the master's degree.

Law Students:

- Five years from date of entry into Law College to complete the JD program.
- Six years from date of entry, for students who take more than 43 credit hours as a part-time student, to complete the JD program.
- Eight years from initial matriculation as a dual degree student to complete the JD/MPA, JD/MUPDD, JD/MBA, or JD/MAES program.

Impact of Selected Grades on SAP Requirements

The Financial Aid Office has specific policies defining the effect of incomplete grades, withdrawals, absence of assigned letter grades, and transfer credits in the measurement of completion rate and maximum time frame.

Incomplete Grades:
Credit hours in which a student receives an "I" are included in the number of attempted hours but do not count as successfully completed hours.

Withdrawals:
Credit hours in which a student receives a grade of “W” are included in the number of attempted hours but do not count as successfully completed hours.

Absence of an assigned letter grade:
Credit hours in which a student receives a grade of **, I, NA, U, W, or X are included in the number of attempted hours, but do not count as successfully completed hours. Multi-term courses, in which a “T” grade is assigned pending completion of the final term, are treated as successfully completed during the initial term.

Transfer credits: Transfer credits are included in the total number of attempted hours for the measurement of maximum time frame.

Repeated hours: Hours for repeated courses and the initial hours for those courses are all included as attempted hours.

Academic Reassessment:
The financial aid SAP is always based on the grades and the completion rate of the student's attempted hours, not the adjusted credit total that may result from academic reassessment.

Financial Aid Probation

Those students who were not on financial aid probation but who did not meet the GPA or completion rate requirements will be placed on financial aid probation for their next academic term. Their progress will be measured again at the end of the probationary term.

Those students who were on financial aid probation and who did not meet the SAP GPA or completion rate requirements become ineligible for federal financial aid, as well as for state and institutional need-based financial aid. Such students may complete the SAP Petition for Financial Aid found at **http://www.csuohio.edu/financialaid/forms/**. If the petition is approved, the student's probationary period will be extended for one term and the student will be eligible to receive financial aid during the extended probationary term.

Loss of Eligibility

Students become ineligible for federal financial aid, as well as for state and institutional need-based financial aid, when:

- they fail to meet the GPA or completion rate requirements at the end of their probationary term.
- they have attempted the maximum allowable credit hours for their program of study. (If a student reaches the maximum time frame during an award year, any aid that has been awarded for future terms will be canceled.)
- they are dismissed by the university or their graduate college.

Regaining Eligibility

A student who is ineligible for financial aid due to failure to make satisfactory academic progress during the probationary term may complete the SAP Petition for Financial Aid found at **http://www.csuohio.edu/financialaid/forms/**. If the petition is approved, the student’s probationary period will be extended for one term and the student will be eligible to receive financial aid during the extended probationary term.

A student who regains eligibility either by meeting the satisfactory academic progress standards or by approval of their petition for reinstatement may be eligible for Federal Pell Grants, Supplemental Educational Opportunity Grants, Perkins Loans, Federal Work Study, Federal Stafford Loans, and state need-based aid, beginning with the term in which they are determined to be eligible.

A student who has lost eligibility for financial aid, and who later attends school without receiving financial aid, may regain their eligibility by meeting the GPA and completion rate requirements as stated in the current Financial Aid SAP Policy.

Petition for Reinstatement of Financial Aid Eligibility

A student who wishes to petition for reinstatement of financial aid eligibility may submit a written petition to the Financial Aid Office. In order to submit a petition, the student must complete both sides of the Petition for Reinstatement of Financial Aid (available **http://www.csuohio.edu/financialaid/forms/**) and attach documentation, as necessary. Students should clearly explain the

mitigating circumstances that contributed to the failure to meet satisfactory academic progress.

Students are encouraged to schedule an appointment to meet with their academic adviser to discuss academic progress and to identify ways to improve their academic performance.

Petitioners will receive a written response not more than four weeks after submitting the necessary information. If your petition is denied, you will be responsible for all charges incurred as a result of the loss of federal and state need-based financial assistance.

Special Programs

- **Active Minds/Project 60 Program**
- **AHANA Peer Mentoring Program**
- **Air Force ROTC**
- **Army ROTC**
- **Athletics**
- **Black Studies Program**
- **Division of Continuing Education**
- **Cooperative Education**
- **Honors Programs**
- **International Student Services**
- **LINK Program**
- **National Student Exchange**
- **STARS Program**
- **Student Support Services**
- **Study Abroad Program (CISP)**
- **Upward Bound Program**
- **Women's Comprehensive Program**

Active Minds/Project 60 Program

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- **Description**
- **Go to Active Minds/Project 60 Web site**

Description

The Project 60 Program enables any Ohio resident, age 60 or older, to enroll in for-credit classes at Cleveland State University on a tuition-free, academic space-available basis. Students are responsible for purchasing their own textbooks, providing transportation, paying for parking, and any other special fees.

Benefits

- Attend classes at the downtown campus, West Center in Westlake or East Center in Solon
- Receive an official Cleveland State ID card (**Viking Card**)
- Use the **University Library**
- Use campus computer labs
- Use the **Career Services Center**
- Obtain membership to the Cleveland State University Recreation Center. Details are available at **www.csuohio.edu/recreation_center/community.html** or call 216.802.3200.
- Receive student discounts with the use of your Cleveland State ID card
- Participate in student events and activities on campus. Visit **Student Life** for details.

Admission

For Spring 2008, Saturday classes begin on January 12 and weekday classes begin on January 14.

If you want to join us for the upcoming semester, please mail or deliver an application form to: Project 60, Cleveland State University, 2121 Euclid Avenue, RW 238, Cleveland, OH 44115-2214. The application form is a simple, one-page form. You can download the **application form** or you can call 216.687.9379 for assistance.

When you are admitted to the Project 60 Program, your student identification number will follow you throughout your association with Cleveland State University. It is not necessary to reapply at any time once you have received a student identification number.

Policies

Classes are taken on an audit basis only, so you cannot earn a degree or credits toward a degree with the classes you take through the Project 60 Program. If you wish to earn a degree or credits toward a degree, please visit our Undergraduate Admissions Office at **www.csuohio.edu/admissions** or call 216.687.5411.

Most for-credit courses are open to Project 60 students on a space-available basis. Students are responsible for obtaining permission to take classes, if necessary. The following courses require permission:

- **Law classes:** call 216.687.4557
- **Studio art classes:** call 216.687.2040
- **Applied music:** call 216.687.2033
- **Graduate classes:** contact the department
- **Continuing Education classes:** all individuals aged 60 and over are eligible for a 15 percent discount. Please visit **www.csuohio.edu/ce** for a list of available classes.
- **Modern languages and laboratory classes:** call 216.687.9379.

Available Classes

The **undergraduate catalog** and list of classes are available **online**. Although paper copies of classes being offered and their descriptions are not available, individual assistance in choosing classes may be obtained at orientation or by making an appointment. Please call 216.687.9379 for more information.

The AHANA Peer Mentoring Program

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- **Go to AHANA Program Web site**

Description

The AHANA Peer Mentoring Program (**A**frican American, **H**ispanic American, **A**sian American and **N**ative **A**merican, an acronym used widely at colleges and universities across the nation) is a university retention effort designed to assist students at the critical point of entry to the university to adjust to the demands of college-level course work. The AHANA Peer Mentoring Program provides a concerted effort to support students in the critical first semester and throughout their matriculation at the university. This includes facilitating adjustment to university life; fostering broad understanding of university support services; and providing support networks of committed staff, faculty, administrators and peer mentors to guide the students successfully toward graduation from Cleveland State University.

Four peer mentoring programs focused on under-represented groups in higher education reach out to incoming freshmen to assist in their transition to college: Black Male Initiative, Black Women Initiative, Hispanic Retention Initiative and Native American Retention Initiative. The programs operate similarly under the umbrella of the AHANA Peer Mentoring Program.

Examples of the mentoring programs include the Hispanic Retention Initiative (HRI), which reaches out to all incoming Hispanic students to introduce them to strategies for success at Cleveland State. A HRI graduate assistant maintains close contact with students to ensure use of peer mentoring, social and academic support services, and the career exploration process. HRI facilitates interaction among Hispanic students with others of similar cultures to form networks of support. The HRI coordinator organizes student participation in the Hispanic Awareness Week and Hispanic Community Forum to further enhance involvement on campus, and monitors academic progress. The Black Male Initiative (BMI) was established by the Office of Minority Affairs and Community Relations in 1991 to address the low rate of retention and graduation of African American males at the university. BMI strives to increase the retention, achievements, graduation, and leadership skills of African American males. Participants attend workshops, lectures, off-campus retreats, intramural sports, and local and national conferences.

For more information, call (216) 687-9233.

Air Force ROTC (Aerospace Studies)

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- **Overview**
- **Curriculum Registering**
- **Miscellaneous**
- **Financial Assistance**
- **Contact Information**
- **AF Courses**
- **Go to Air Force ROTC Web site for further information**

Overview

The Air Force ROTC program provides professional preparation for students considering service as officers in the U.S. Air Force. The program also offers information on Air Force career opportunities and the role of the military in the American society. Courses in AFROTC are offered to Cleveland State students through a cross-town agreement with Kent State University (KSU). Students enrolled in AFROTC receive Cleveland State credit for the courses; however, the courses are taken at KSU.

Curriculum Registering

Courses are normally taken for academic credit as part of the students' electives. Entering freshmen and sophomores may register for Aerospace Studies courses at the same time and in the same manner as they enroll in their other college courses. Juniors and seniors wishing to enroll in AFROTC should call the AFROTC Unit Admissions Officer prior to enrollment to discuss the particular requirements.

The curriculum in Aerospace Studies is divided into two parts: the General Military Course (GMC), usually taken during the freshman and sophomore years, and the Professional Officer Course (POC), normally taken during the junior and senior years. Students who qualify will attend a four- (or five-) week Field Training Encampment, usually between their sophomore and junior years. Air Force officers are assigned as full-time faculty members and teach all Aerospace Studies courses.

Students register for an Aerospace Studies course and Leadership Laboratory. Freshmen may register for **AF 101** and **103** for the fall term and **AF 102** and **104** for the spring term. Sophomores may register for **AF 201** and **203** for the fall term and **AF 202** and **204** for the spring term. Juniors will register for **AF 301** and **303** for the fall term and **AF 302** and **304** for the spring term. Seniors in the AFROTC program will register for **AF 401** and **403** for the fall term and **AF 402** and **404** for the spring term.

Miscellaneous

Uniforms and textbooks are provided at no charge to all students enrolled in AFROTC. Textbooks are returned upon completion of each academic year or upon withdrawal from the course.

Veterans with previous honorable U.S. military service who wish to enroll in the POC may be eligible to receive a waiver of either the GMC or its equivalent as an entrance requirement. Veterans who meet all other requirements will be enrolled at the beginning of the junior year.

Financial Assistance

In-College Scholarship Program

Students who demonstrate academic and leadership potential may be nominated by the professor of Aerospace Studies to compete for scholarships. These scholarships are for three or two years, and are awarded in all majors. The scholarship award includes tuition, laboratory fees, $750 annual textbook allowance and a monthly stipend of $300 to $400, tax-free.

Scholarship Statement of Understanding

Air Force ROTC scholarship recipients must meet and maintain certain academic and military retention standards and serve in the active-duty Air Force after graduation.

Incentive Program

Air Force ROTC students completing Field Training and successfully entering the Professional Officer Course (juniors and seniors), who are not already on scholarship, are eligible to receive $350 to $400 per-month stipend, tax free. Cadets must be in good academic standing.

Contact Information

For further information, contact the Department of Aerospace Studies, AFROTC DET 630, 104 Terrace Hall, Kent State University, Kent, Ohio 44242 at (330) 672-2182, or e-mail **det630@kent.edu**.

Army ROTC (Military Science)

- **Back to Special Programs List**
- **General Information**
- **Basic Program**
- **Advanced Program**
- **Scholarships**
- **Contact Information**
- **MSC Courses**
- **Go to Army ROTC Web site**

General Information

The goal of Army ROTC is to prepare young men and women for service as an officer in the U.S. Army. The program offers instruction on Army career opportunities, military skills, leadership, and the role of the military in American society. Courses in the Military Science Basic Program (see MSC I & MSC II below) are offered at Cleveland State University. Courses in the Military Science Advanced Program (see MSC III & MSC IV below) are offered to Cleveland State students through cross-enrollment with John Carroll University. Students enrolled in advanced Army ROTC receive Cleveland State credit for the classes; however, the instruction is given at John Carroll.

Basic Program (MSC I, MSC II)

Students normally take the Basic Program courses during the freshman and sophomore years. Classes are usually taken for academic credit as part of a student's electives. The Army ROTC Basic Program consists of MSC I and MSC II. MSC I has two courses: MSC 101 (Introduction to Military Science) in the fall semester and MSC 102 (Introduction to Leadership) in the spring semester. MSC II courses include MSC 201 (Self/Team Development) in the fall and MSC 202 (Individual/Team Military Tactics) in the spring. Students taking any or all of the basic courses incur no military obligation and are not part of the Armed Forces. Completion of the four basic course classes (MSC 101, 102, 201, & 202) is a prerequisite for acceptance into the Advanced Program (MSC III & MSC IV). Prior military service, current Army Reserve or National Guard status, or attendance at the Army ROTC Leadership Training Course at Fort Knox, Ky., during the summer may also fulfill the Basic Program requirement.

Advanced Program (MSC III, MSC IV)

Students normally take the Advanced Program courses during their junior and senior years. These courses include MSC 301 (Leading Small Organization I), MSC 302 (Leading Small Organization II), MSC 401 (Leadership Challenges and Goal-Setting), and MSC 402 (Transition to Lieutenant). In addition, the Advanced Program includes a weekly Leadership Lab with emphasis on exercises in leadership, tactics, land navigation, communications, physical fitness, operations planning, and military customs. Each course also includes a three-day Field Training exercise during the semester.

Students must be accepted by the head of the Military Science Department at John Carroll University before they can enroll in the Advanced Program courses. Once accepted, each student enters into a contract to complete the courses and to accept a commission as an Army officer upon graduation. While enrolled in the Advanced Program, each contracted student is paid a subsistence allowance of $350-400 a month during the school year. All students enrolled in the Advanced Program are required to attend a five-week Leadership Course at Fort Lewis, Wash., during the summer between their junior and senior year.

Upon satisfactory completion of the advanced courses and award of the baccalaureate degree, students are commissioned as second lieutenants and serve out a military obligation of at least four years, depending on their active or reserve force assignment. Students may request either Active Duty or Reserve Force Duty (Army Reserve/National Guard). Under certain conditions, students who have completed the baccalaureate program and their military science studies may request delayed entry into the active Army to pursue some types of graduate studies, such as medical and law school. Other options available to students in military science are opportunities to attend Airborne, Air Assault, Northern Warfare, and Mountain Warfare training courses.

Scholarships

The U.S. Department of the Army annually awards four-year and three-year scholarships on a competitive basis to high school students nationwide. Winners are announced in early spring. College students can apply for a campus-based Army scholarship in the fall or spring semester of their freshman or sophomore year. In order to apply for any of these scholarships, applicants must have a GPA of 2.5 or better, a minimum SAT score of 920 or an ACT score of 19, pass the Department of Defense medical physical, and meet the Army physical fitness requirements.

Scholarships based upon merit are awarded for up to $17,000 annual tuition. Scholarships also include lab fees, a book allowance of $600 per year, and a monthly subsistence of $250 to $400 during the academic year.

Point of Contact

For additional information about the Army ROTC program, contact the Department of Military Science, John Carroll University, at (216) 397-4421.

Athletics

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Description

- **Go to Athletics Web site**

Cleveland State University's Viking sports teams compete in the National Collegiate Athletic Association (NCAA) Division I. The University sponsors programs for 17 intercollegiate sports -- nine for women and eight for men. The Vikings are members of both the Horizon League and Eastern Wrestling League, which gives Cleveland State's student athletes the chance to regularly compete against some of the best athletes in the country. Cleveland State University student athletes represent the university community at local, regional, national and international competitions, including the NCAA Championships and the Olympics. More than 40 Viking student athletes have been selected as All-Americans in their respective sports.

Viking student athletes learn some of life's most valuable lessons -- sacrifice, preparation, teamwork, competition and resiliency -- while representing Cleveland State in the classroom and the community. In the classroom, the cumulative GPA for Cleveland State's more than 250 student athletes is consistently near 3.0. University teams regularly rank among the nation's academic best, with many having been named Academic All-Americans. Cleveland State's Athletic Academic Advising Office coordinates an extensive support system, including study halls and tutoring.

Community service is a cornerstone of Cleveland State University athletics. Viking student athletes, led by the University's Student-Athlete Advisory Council, participate in a variety of volunteer activities ranging from tutoring to adopt-a-school programs.

Black Studies Program

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- **Black Studies Academic Program**
- **The Dr. Howard A. Mims African-American Cultural Center**
- **The Black Studies Lecture, Arts and Media Series**
- **Jazz Heritage Orchestra**
- **"Images," A Weekly Forum**
- **Black Aspirations Week**
- **Go to Black Studies Web site**

Introduction

The broad mission of the Cleveland State University Black Studies Program is to provide the university community and the Greater Cleveland community with opportunities to acquire greater knowledge and a broader understanding and appreciation of the history, life, arts, culture, and experiences of African peoples and peoples of African descent on the African continent, in the United States of America, and throughout the African Diaspora. The time-span that encompasses this study of Africa, Africans, and peoples of African descent extends from the beginnings of ancient African civilization to the present.

The Black Studies Program seeks to provide information, dialogue, and experiences that contribute knowledge that serves to shape attitudes and behaviors necessary for living and working effectively and harmoniously in a multiracial, multiethnic, and multicultural society.

The Black Studies Program is a member of the College of Liberal Arts and Social Sciences (CLASS). The director of Black Studies reports to the dean of CLASS. The Black Studies staff consists of the director who oversees all operations, programs and activities of the Black Studies Program; the coordinator of the Dr. Howard A. Mims African American Cultural Center, who is also the assistant to the director; the coordinator of administrative services; and a secretary. The Black Studies Program provides activities and services for the enrichment, education, and enjoyment of all Cleveland State University students, faculty, and staff as well as the Greater Cleveland community.

The Black Studies Program seeks to carry out its mission through the following six instruments:

- The Black Studies Academic Program
- The Howard A. Mims African American Cultural Center
- The Howard Mims Lecture, Arts and Media Series
- The Jazz Heritage Orchestra
- IMAGES, a weekly Black Studies radio forum
- Black Aspirations Week

Black Studies Academic Program

- **See also Black Studies Minor in this Catalog**

The Cleveland State University Black Studies Program offers an interdisciplinary minor in Black Studies through approximately 87 Black Studies courses taught in 20 different departments that are housed in the College of Liberal Arts and Social Sciences, the College of Education and Human Services, the College of Urban Affairs and the College of Science. These courses include the contributions of Africans and persons of African descent throughout the Diaspora to literature, arts, culture, religion, music, drama, science, technology, education, health, communication, and dance. The courses focus on information about African and African-American experiences in slavery, emancipation, segregation, desegregation, protests, and revolts, as well as the study of black institutions, organizations, businesses and the urban experience. These courses explore the politics, philosophy, psychology, and sociology of the black experience.

The director of Black Studies, with the assistance of Black Studies professional staff members, is responsible for the administration of the minor in Black Studies. Administration responsibilities include advising students who elect a minor in Black Studies. This is done in conjunction with a member of the interdisciplinary Black Studies faculty. The director of Black Studies also serves as adviser to students pursuing a Personally Designed Major (PDM) in Black Studies. The director of Black Studies is responsible for communicating with the faculty who teach the Black Studies courses and with chairpersons of departments in which Black Studies courses are taught in order to encourage the establishment of additional courses and to facilitate the smooth functioning of the Black Studies Academic Program. For more information, contact the director of Black Studies at (216) 523-7211.

The Dr. Howard A. Mims African American Cultural Center

- **Go to Dr. Howard A. Mims African Americal Cultural Center Web site**

The Black Studies Program operates the Dr. Howard A. Mims African American Cultural Center located in Room 103 of University Center. The center’s programs include Umoja Round Tables, Kuumba Arts Presentations, Curtis Wilson Colloquium Series Lectures, the Black Studies Ambassadors, as well as Bridges to Africa Panels and Celebrations. These programs feature revolving exhibits, engagements with performing artists, formal colloquia, films and video recordings about African American, African and African Diaspora history, life and culture. The Dr. Howard A. Mims African American Cultural Center is also designed to assist with student retention initiatives and provides an aesthetically enhanced atmosphere, where students are invited to relax, engage in formal or informal discussions, study and receive tutoring. This space is available for meetings by students, faculty/staff groups and organizations, as well as community organizations and groups aligned with the mission of the Black Studies Program. The Dr. Howard A. Mims African

American Cultural Center is open to students, staff, faculty and the general public Monday through Thursday from 8 a.m. to 8 p.m. and Friday from 8 a.m. to 5 p.m. The coordinator of the Dr. Howard A. Mims African American Cultural Center should be contacted for scheduling events during regular hours or for use of the center on special occasions. For more information, contact the coordinator of the Dr. Howard A. Mims African American Cultural Center/assistant to the director of Black Studies at (216) 687-3656.

The Black Studies Lecture, Arts and Media Series

- **Go to Black Studies Lecture, Arts, and Media Series Web site**

The director of the Black Studies Program and other members of the Black Studies staff are responsible for bringing to the university and the Greater Cleveland community outstanding speakers, the creative work of visual and performing artists, videos, and film. The director—in conjuction with the Black Studies staff, a student advisory council, a community advisory council, and members of the interdisciplinary Black Studies faculty—is responsible for presenting this annual series, which is an extension of the Black Studies Academic Program. One purpose of the Lecture, Arts and Media Series is to preserve and perpetuate vital aspects of African, African American, and the African Diaspora cultural experiences, especially those artists and programs of high quality, which are often neglected. Cleveland State University students are especially encouraged to take advantage of these culturally enriching and highly educational activities and events which are designed to be an extremely vital part of their total college experience. Special efforts are also made to make these events of the Lecture, Arts and Media Series available to all segments of the general public. For more information, contact the secretary of the Black Studies Program at (216) 687-3655.

Jazz Heritage Orchestra

- **Go to Jazz Heritage Orchestra Web site**

In 1998, with a small band of supporters, the late Dr. Howard A. Mims, professor emeritus and former director of the Cleveland State Black Studies Program, founded the Jazz Heritage Orchestra (JHO). They envisioned the establishment of a world-class orchestra with a three-fold mission: primarily, to preserve and perpetuate the musical heritage of the great African American jazz masters, who were its primary creators and major innovators, through the education of young people and the general public by offering educational residencies, clinics, workshops and master classes; secondly, to present jazz to all strata of society through concert performances, festivals and conferences; and thirdly, for the Jazz Heritage Orchestra to create its own legacy by producing new music. These professional musicians are world-class jazz performers and highly competent music educators committed to taking jazz music and its history into the schools and other learning venues. The Jazz Heritage Orchestra is a 17-piece not-for-profit jazz orchestra officially in-residence in the Black Studies Program at Cleveland State University. JHO offers ensembles ranging from trio to a 12-piece band. Dennis Bradley Reynolds, former lead trumpeter with the Count Basie and Clark Terry Big Bands, is the artist director. For information, call 216-687-5461 or e-mail **jazzhorch@csuohio.edu**.

"Images" Radio Forum

- **Go to "Images" Web site**

"Images" is a weekly Black Studies Program radio forum. The office of the Black Studies Program is responsible for producing the program, which is hosted by the director of the Black Studies Program. The director serves as executive producer. Engineering services are provided by Cleveland State's Instructional Media Services in the IMS studio where the forums are recorded for future broadcast. "Images" is heard each week on two Cleveland area radio stations: WZAK-FM (93.1) Sunday, 6 a.m. and WCSB-FM (89.3) Wednesday at noon. In addition to discussions and conversations with local, national and international guests, "Images" is used to promote activities and events of the Black Studies Program as well as activities of other departments and units of the university. For more information, call (216) 687-3655.

Black Aspirations

- **Go to Black Aspirations Web site**

The goal of Black Aspirations Week is to highlight the accomplishments and achievements of African/African Americans throughout the Diaspora. Speakers, artists, and others are brought to the Cleveland State University campus to educate students and community residents regarding the diverse contributions made by African/African Americans. Most Black Aspirations events are free and open to the public.

Continuing Education

- **Back to Special Programs List**
- **Description**
- **Go to Continuing Education Web site**

Description

Over 10,000 adults enroll in more than 600 professional development seminars, workshops, short courses, and conferences offered by the Division of Continuing Education each year. The division offers noncredit programs in business and management, computers and information technology, engineering and construction, hazardous materials and emergency preparedness, nursing and health/human services, and landscape horticulture. Programs enable adults to keep up to date in their professions, acquire new knowledge, develop new skills, and advance their careers. Test Prep courses are also available for the GRE, GMAT, and LSAT. Classes are offered at times and places convenient to adults, including East and West Centers, other off-campus sites, and online courses. The division also delivers custom-designed programs for business, industry, government, health, and community organizations. In addition, the division is responsible for the university's English as a Second Language Program, which provides both credit and noncredit courses for international students and other non-native English speakers.

Continuing Education Units (CEUs) are awarded for continuing education programs. Noncredit certificates are awarded for in-depth coursework in specific specialty areas.

The division sends program catalogs and brochures to interested persons throughout the year. To receive free materials, call the Division of Continuing Education at (216) 687-4850, e-mail **conted@csuohio.edu**, or visit **www.csuohio.edu/ce**.

- **Request a catalog or register online**

Cooperative Education

- **Back to Special Programs List**
- **Introduction**
- **Eligibility**
- **Academic Credit**
- **Administration**
- **Co-Op Job Placement and Scheduling**
- **Go to Cooperative Education Web site**

Introduction

Through the Cooperative Education Program, students can explore career and academic options, pretest career choices, put academic theories to work with professionals in their field, polish personal and professional skills, and earn money to contribute to their educational costs. Cleveland State University offers the Cooperative Education Program in all undergraduate fields of study and most graduate programs. Co-op students work in positions that are closely related to their academic areas of study and career interests. Work experiences are typically scheduled during alternate semesters beginning in the sophomore year. In some cases a parallel schedule of part-time work is available.

Eligibility

There are three basic requirements for admission to the Cooperative Education Program: Students must have earned at least 30 semester hours, be in good academic standing prior to the first assignment, and have completed the one-credit-hour **CSC 121** Career Orientation course. Transfer students are also eligible to participate in co-op.

Application for admission usually is made in the freshman year or, in the case of a transfer student, during the first semester on campus. Application requirements are satisfied when the student completes CSC 121, which presents detailed regulations and procedures for obtaining the greatest value from the co-op program and aids students in clarifying their career goals and sharpening their job-search skills.

Academic Credit

All co-op students are required to register their co-op experience with the university. **CSC 300** provides for academic credit in recognition of the educational value of the cooperative education experience. In this way, one credit is given for each co-op experience completed. This credit is not counted toward the number of hours needed for graduation, but it will add academic hours to a student's credit total. The academic credit maintains a student's full-time status while on a co-op job. **CSC 400**, a non-credit option, is also available. However, CSC 400 does not maintain a student's full-time status.

Administration

The Cooperative Education Program is administered by the **Career Services Center**. During the Career Orientation course, students are assigned to a career coordinator. The coordinator acts as a liaison between the university and the working community, developing co-op opportunities and maintaining an effective rapport with all program participants.

Co-op Job Placement and Scheduling

Co-op employers include a wide range of businesses and industries, governmental, social service agencies, and school systems. Jobs are developed with employers who will provide a meaningful work experience, the standard rate of pay for the work being performed, and a careful evaluation of the student at the completion of the work semester.

Coordinators help students in the entire placement process, providing counseling and contacts. Students then apply directly to the employer and are hired on their own merits. Students must register for **CSC 300** or **CSC 400** (Co-op Field Experience) during each semester in which they have a work assignment.

The co-op schedule, showing the semesters the student will be in school and when the student will be at work, is prepared by the coordinator in consultation with the student and the appropriate academic adviser. The co-op student typically alternates periods of being at work and at school from the end of the freshman year to the beginning of the senior year. Two students are often paired with the same employer, thereby keeping a designated co-op position filled at all times. Variations in length and pattern of co-op schedules are considered on an individual basis with many factors being considered.

Students enrolled in the Cooperative Education Program are expected to comply with all of the policies, rules, and procedures governing the program, which are explained further in the Career Orientation course.

Honors Program

- **Back to Special Programs List**
- **Description**
- **Departmental Programs**
- High School
    - **PSEOP**
    - **SYAP**
- **HON Courses**
- **Go to Honors Program Web site**

Description

Who May Apply

For the Academic Years 2007-08 and 2008-2009, the Cleveland State University Honors Program will admit 40 to 50 students with first-year status and 25 students with junior standing each year.

Scholarship Opportunities:
Renewable scholarships covering full tuition, books and fees will be offered to first-year and junior-entry Honors Program students.

First-year students

For first-year students admitted for Fall 2007, the criteria for admission include:

- 30 ACT composite score or above OR
- Comparable SAT total score (1300 or 1950) OR
- Top 10 percent of high-school class ranking
- Admission to Cleveland State University
- Submission of a written essay

Students are expected to complete a college preparatory curriculum in high school. High schools vary in the advanced courses they offer. Honors applicants are expected to complete the most rigorous curriculum available at their high school. Applicants who participate in the Post-Secondary Enrollment Options Program are expected to have completed the standard high-school college preparatory curriculum in addition to their college work.

Preferred applicants will have four years of high school English; four years of high school mathematics including pre-calculus and in some cases calculus; at least three years of natural science, usually biology, physics and chemistry; at least three years of social science courses; three or more years of a foreign language; and additional classes in the visual or performing arts. There will be students admitted who have not met all of these criteria; however, it should be noted that a student without high school physics, for example, is generally not prepared for a college-level course in the subject. Preference in admission to the Honors Program will be given to students whose high school transcripts indicate they are prepared for a wide variety of possible college majors.

The application for the Honors Program may be downloaded from the Honors Web site at **www.csuohio.edu/honors/**.

Juniors

Students applying to the Honors Program for admission as juniors must satisfy the following minimum criteria:

- 3.5 GPA or higher on college courses OR
- 27 ACT composite score or above OR
- 1830 SAT total score (1220 on the old SAT) or above
- Admission to Cleveland State University
- Junior-level standing by fall of entry into program (60 semester credit hours completed)
- Submission of a written essay

Preferred applicants will be on track to graduate in two years (for those whose major is in a four-year program). College transcripts will reflect a rigorous course of study both in the student's preferred major and in his or her choices for general education and elective courses. Students should have made good progress toward completion of general-education course requirements and lower-division prerequisites for courses in their major.

Application Deadlines

The Honors Program Admissions Committee will give priority consideration to applicants based on academic excellence.

Applicants entering as first-year students are encouraged to apply by January 15. The Honors Program Admissions Committee has reserved a limited number of spaces for exceptionally well-qualified students applying after January 15.

Applicants entering as juniors are encouraged to apply by February 28. Applicants who apply later will be considered based on academic excellence and space availability.

Funding for Honors Scholarships comes from a variety of sources. To allow us to fund as many students as possible, we require that all students file a FAFSA.

A very small number of international students are admitted to the program each year. Successful applicants are exceptionally well-qualified.

Lower-Division Program:

All honors students who begin as entering first-year students will be required to take at least 20 credit hours of lower-division honors courses (i.e., 4 four-credit courses and 4 one-credit honors colloquia series courses), selected from a broad spectrum of disciplines. Students will register for courses in accord with an individual honors plan approved by their academic adviser and the Honors Program director. Honors courses are designed to be interdisciplinary and participatory. As an example, an honors history class first offered fall, 2004 - the History of Cleveland, the Last Fifty Years - explores the city's past 50 years with the leaders and participants who experienced the events first-hand. These individuals will join the class to discuss their roles, giving students in the class the opportunity to become active participants in the discussions rather than just being listeners. Students find out what options city leaders had and why they chose certain paths and rejected others. In addition, the course uses the city's myriad available resources to inform understanding of the key crises and opportunities the city faced and how it dealt with them.

Upper-Division Program:
The honors experience for upper-division honors students is tailored to the requirements of each student's chosen major(s) and specific goals. Junior and senior honors students' courses are selected through consultation with faculty members in their major(s). Upper-division honors students have the opportunity to do additional honors work under faculty supervision in established courses; enroll in graduate courses; participate in a faculty member's research project or laboratory; complete an independent research project or a service learning project; and/or engage in an internship, co-op experience, or job. In some departments, students will also be encouraged to attend professional meetings. Each semester there will be regular honors colloquia that will cover topics spanning the academic disciplines.

Consult our Web site for the most current information: **www.csuohio.edu/honors/**.

Contact Information:
Dr. Barbara Margolius, Director
Cleveland State University Honors Program, MC 219
2121 Euclid Ave., Cleveland, OH 44115-9897
Telephone: 216-687-5559

Departmental Programs

Students with high grade-point averages and a desire for academic challenge should be aware that several departments offer honors programs for their students. These include: Art; Biological, Geological, and Environmental Sciences; Economics; History; Modern Languages; Physics; and Psychology. Details can be found in the program descriptions for these departments.

High School Programs

- **Post-Secondary Enrollment Options Program (PSEOP)**
- **Senior Year Acceleration Program (SYAP)**
- **Go to High School Students information**

Post-Secondary Enrollment Options Program (PSEOP)

The Post-Secondary Enrollment Options Program (PSEOP) is a state-funded program which offers qualified high-school students the opportunity to gain valuable college life experience and earn credit while supplementing their high-school college preparatory curriculum during the fall and spring semesters. Cleveland State University believes that motivated and dedicated high-school students who participate in this program will profit immensely from the opportunity to interact with college students, faculty, and staff, and experience firsthand the benefits and advantages of a metropolitan university. PSEOP is intended to complement rather than replace the high-school college preparatory curriculum.

Admission to the PSEO program is based on the student's high-school grade performance and SAT and/or ACT examination scores. Students who are admitted to the PSEO program are eligible to enroll in courses for both high-school and college credit. Once enrolled at Cleveland State, PSEOP students are held to the same standards as regular undergraduate students and must maintain a minimum cumulative grade-point average of 2.0 to continue in the program.

Admission Criteria
(for high school seniors, juniors and sophomores)

- 3.4 high school cumulative GPA
- Minimum ACT (or PLAN) scores of 22 on each section AND a 22 composite, OR minimum SAT (or PSAT) scores of 520 on each section (total of 1040 critical reading and math sections combined)

Students planning to participate in their freshman year are admitted only under special circumstances. Freshman applicants must meet the admission criteria stated above; they also must submit two letters of recommendation and a written essay.

Application Deadlines
High school students interested in participating in PSEOP for the full academic year (fall and spring semesters) must apply by May 1. Students submitting applications by April 1 will receive their decision by early May.

Orientation and Course Selection
Students admitted into PSEOP are required to attend an orientation session to become acclimated to Cleveland State and to learn more about the program requirements and policies. During orientation you will schedule your courses with a University PSEOP adviser.

For more information contact our PSEOP Admissions Liaison at (216) 687-9336 or **c.graham59@csuohio.edu**, or contact the coordinator at (216) 687-2279 or **pseop.pro@csuohio.edu**.

Senior Year Acceleration Program (SYAP)

The Senior Year Acceleration Program (SYAP) offers qualified high-school students, who do not qualify for Post-Secondary Enrollment Options A or B, the opportunity to take courses during the fall, spring, or summer semesters. Unlike PSEOP, all tuition, fees, and books for students enrolled in SYAP must be paid by the individual student or parent. For more information contact our PSEOP Admissions Liaison at (216) 687-9336 or **c.graham59@csuohio.edu**, or contact the coordinator at (216) 687-2279 or **pseop.pro@csuohio.edu**.

International Student Services (CISP)

- **Back to Special Programs List**
- **Description**
- **Go to the International Student Services Web site**

Description

The Center for International Services and Programs, located at 2121 Euclid Avenue, UC 302, provides specifically designed services to meet the needs of nearly 800 international students from 82 different nations who are enrolled in academic programs at the undergraduate, graduate or doctoral level.

CISP provides a variety of services to international students and international visitors to foster a positive learning experience for both their academic and personal growth.

Arrival.
CISP provides an airport pickup service for first-semester international students. Students notify CISP of their arrival information via the Arrival Form, which is sent to the students with their I-20 or DS2019. The Arrival Form is also available for download from the CISP Web site. Students can e-mail their completed Arrival Form to CISP at **cispcsu@csuohio.edu**, or fax it to CISP at (216) 687-3965. Alternatively, the Arrival Form can be filled out and submitted online at the CISP Web site. Arrangements will be made for a CISP representative to meet the student at the airport or other transit station.

Orientation.
CISP conducts a mandatory orientation at the beginning of each academic term. The orientation takes place approximately 10 days before the term begins. These programs address important issues which new international students face, such as adjustment, language difficulties, safety, housing, immigration regulations, and university academic policies and procedures.

Individual Advising.
Advising services include personal, academic, and cross-cultural advising. The advising is available by appointment and on a walk-in basis for short-term assistance.

Immigration Advising.
CISP provides immigration advising for students on F-l and J-l visas. Questions concerning student visas, duration of status, practical training, and on-campus and off-campus work permission are among the topics covered. The center also conducts weekly work permission seminars.

Academic Advising.
For students who face academic difficulty, academic advising is available. This advising is meant to assist students with difficulties not addressed by academic departments on campus. Students who face academic dismissal are advised as to how to strategically complete their remaining course work and as to the interrelated immigration implications they may face.

Social Programming.
International students at Cleveland State have many opportunities for social interaction with American students, fellow nationals, and individuals from many countries.

International Day.
Each fall, the international students on campus unite to celebrate International Day, a part of International Education Week, which is celebrated around the world. Numerous nationality groups participate in bringing a day of cultural exchanges, through ethnic food, music and authentic dance performances. The event is organized by CISP.

International Student Organizations.
There are several international student groups on the campus. They represent countries in Asia, Africa, Europe, Latin America and the Middle East. New groups are formed every year. Each nationality group on campus is encouraged to establish its own group.

LINK Program

- **Back to Special Programs List**
- **Description**
- **Go to Career Services' LINK Program page**

Description

The LINK Program is a recruitment and retention effort by the **Career Services Center** to increase minority student participation in Cleveland State University's Cooperative Education Program. Students are recruited primarily from Greater Cleveland-area high schools and are offered a wide range of support services while pursuing their degrees at Cleveland State University.

To be eligible for the LINK Program, students must be admitted to the university and submit a written essay, written recommendations, and an oral presentation.

Mentoring and financial support are the dual purposes of the LINK Program. Each student has a peer advisor and LINK Program staff mentor as well as a corporate mentor who provides the student with direct exposure to the professional world of work. Financial support in the freshman year is a combination of financial aid and LINK scholarship support. The student's co-op wages also provide financial support. Upon completion of the freshman year, LINK students gain career-related work experience through the Cooperative Education Program.

Interested students should call (216) 687-2233 or stop by the Career Services Center located in Rhodes Tower West, Room 280.

National Student Exchange

- **Back to Special Programs List**
- **Description**

Description

The National Student Exchange (NSE) offers Cleveland State University students the opportunity to take course work at approximately 190 participating colleges and universities throughout the United States as well as Puerto Rico, the U.S. Virgin Islands, Guam and Canada. Students may attend a host institution for up to one calendar year while continuing their progress toward a Cleveland State University degree.

The program allows students an opportunity to explore and learn from different regional and cultural perspectives and to broaden their backgrounds, often through courses not available at their home campus. All pre-approved courses will transfer back to Cleveland State.

Eligible students must maintain full-time enrollment before and during exchange, be of at least sophomore status, and have a 2.5 minimum GPA.

The deadline for application is always February 1 for the following fall semester.

Interested students should contact David Bowditch at (216) 687-9374 or e-mail **d..bowditch@csuohio.edu**. More information may be accessed at **www.nse.org**.

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STARS Program

- **Back to Special Programs List**
- **Description**
- **Go to STARS Program Web site**

Description

STARS (Student Achievement in Research and Scholarship) is a faculty-driven, incentive-based mentoring program for high-ability students who are preparing for graduate school and ultimately for academic careers. Administratively, STARS is a consortium of 16 Ohio universities and two community colleges, each with a campus coordinator and faculty mentors whose work with students includes: academic advising, guidance in the conduct of a research project, and guidance in the student's preparation for participation in at least one academic or professional conference.

Now in its 16th year of operation, STARS is governed by a statewide committee consisting of the STARS coordinators from each participating campus, plus an administrator representing the Ohio Board of Regents (OBOR).

The mission of STARS is to increase the pool of individuals from traditionally under-represented groups in graduate schools in Ohio. STARS Program objectives are: to develop a statewide mentoring system for high-ability undergraduate students from traditionally under-represented groups in order to encourage their interest in academic careers and to prepare them for graduate college; and to develop a statewide system to recruit STARS students into doctoral programs in Ohio by providing them with assurance of financial assistance, typically in the form of a graduate assistantship.

Students interested in participating in the STARS Program are encouraged to contact Serreta Archer at (216) 687-5561.

Student Support Services

- **Back to Special Programs List**
- **Description**
- **Go to Student Support Services Web site**

Description

By taking a collaborative, holistic approach, TRIO/Student Support Services (SSS) encourages and enhances student learning and motivation towards achieving a baccalaureate degree. Student Support Services, a federally funded program (TRIO), provides participants who are income eligible and/or first-generation college students with academic assistance and personal support. To help these students attain their academic goals, the program runs a strong network of advising, tutoring, peer mentoring and other educational services. These services are offered to Student Support Services participants from program entry until graduation.

For over 35 years, TRIO/SSS participants have benefited from services such as:

- Academic advising
- Career planning seminars
- Financial aid workshops
- Academic skills sessions
- Tutorial services
- Computer application workshops
- Cultural and social enrichment activities
- Peer mentoring
- Summer Enrichment Program
- Graduate and professional schools preparation
- Tuition assistance (if eligible)

Eligible participants must be enrolled at Cleveland State and meet at least one of the following criteria:

1. **First Generation**: Neither parent has a bachelor's degree;
2. **Income**: Receive financial aid such as a Pell Grant and/or have a taxable income which meets TRIO/SSS federal guidelines.

Interested students should call (216) 687-5244 or visit the TRIO/Student Support Services program office at 2121 Euclid Avenue, University Center, Room 500.

Study Abroad Program (CISP)

- **Back to Special Programs List**
- **Description**
- **Go to CISP's Study Abroad Web site**

Description

Cleveland State University offers a number of international educational activities for our students. These activities include the following:

One-to-One Exchange/ Year-Long Programs:
A Cleveland State student can study in England, France, Germany, Sweden, Chile, China or South Korea as a part of a direct exchange program.

Summer/Short-Term Study Abroad Programs:
Every summer several Cleveland State academic departments offer summer study-abroad programs led by Cleveland State faculty in several areas of the world and facilitated by CISP. Examples of these include study in India (Social Work), France, Spain, Mexico (Modern Languages), China (Political Science), England and Germany (Business). Contact the department or CISP's study-abroad staff for more information.

Individual Programs:
The study-abroad staff can assist students wishing to take part in one of the university-sponsored programs or will assist them in locating a program which will fit academic needs. In most cases, financial aid can be applied for approved study abroad programs and course credits can be transferred in. Students can choose to study abroad for a semester, summer, or a year.

International Internships:
CISP offers internships in Germany for business and engineering majors. Information about other opportunities to work and volunteer abroad can be found at CISP and on the Web site.

Scholarships:
Students can apply through CISP for study abroad scholarships. Awards range from $200 to $1,000. The Office of Diversity and Multicultural Affairs also offers a special minority study-abroad scholarship for up to $500 for summer study and up to $1,000 for semester or year-long programs. In addition, CISP can assist students with applications for national study-abroad scholarship competitions.

For further information and to apply to the programs, contact the Study Abroad coordinator at the Center for International Services and Programs (CISP) at 2121 Euclid Avenue, UC 302. Call (216) 687-3910, Fax (216) 687-3965, or visit **www.csuohio.edu/internat**.

Upward Bound Program

- **Back to Special Programs List**
- **Description**
- **Go to Upward Bound Web site**

Description

The Upward Bound Program, funded by the U.S. Department of Education, offers a year-round program of educational support for high school students who wish to attend college. Upward Bound is divided into two components: the academic year and the summer residential program. During the academic year students receive a minimum of three hours of individual tutoring each week as well as academic support, career counseling, academic advising, and cultural enrichment. During the summer, Upward Bound conducts a six-week residential summer program on the Cleveland State University campus that includes six hours of daily classroom instruction and cultural, educational, and recreational activities.

Eligibility for the program includes:

- Enrollment in one of the following Cleveland Municipal Schools:
  Glenville, Collinwood, East Tech, East, Martin Luther King, and Lincoln West high schools
- Possession of a 2.0+ GPA
- Meeting the definition of a First Generation (neither parent has earned a bachelor's degree) college student
- Meeting the U.S. Department of Education income guidelines
- Enrollment in the 9th or 10th grade.

For more information call (216) 687-2016.

Women's Comprehensive Program

- **Back to Special Programs List**
- **Description**
- **Go to Women's Comprehensive Program Web site**

Description

Cleveland State University recognizes that changes in the economy and in society require more women to have higher education. Women today are recognizing higher education to be the critical difference between a job and a career, or flexibility for home and family. Cleveland State's Women's Comprehensive Program (WCP) is a university unit established to promote Women's Studies courses for all students, to increase enrollment, to address concerns of female students, and to increase the number of college educated adults in the state of Ohio. Comprehensive by design, WCP focuses on academic courses, services to students, and outreach to under-represented categories of women--including the woman who, after a few or many years away, must now return to school. By integrating the concerns of and for female students into all aspects of university life, WCP systematically provides an equitable higher education experience, from recruitment to course development through exit counseling, for Cleveland State's present and potential female students.

Women are particularly encouraged to make career choices with care, since career sequences in our current economy require transferable skills, critical and analytical thinking, and the ability to synthesize information from more than one perspective. WCP (1) promotes interdisciplinary study through Women's Studies—the academic discipline recognizing gender roles as a fundamental part of the knowledge base, (2) administers the university's major and minor in Women's Studies, (3) coordinates course offerings, and (4) assists with the development of new courses. Program personnel work with students so that they gain exposure to a wide range of disciplines and professions.

Note: most Women's Studies courses are applicable to, or augment, many major fields, and do fulfill some university general education requirements as indicated in course listings. Courses are open to all students. Descriptions are listed in the Course Description section of this catalog. Requirements for the major and minor in Women's Studies are **listed under College of Liberal Arts and Social Sciences**.

There is a Re-Entry Women's Project designed to address the needs of the increasing number of adult female students whose educational goals have been deferred or delayed. Because women must frequently return to school amid a range of continuing commitments and claims upon their time and resources, Outreach Programs are held throughout the year in an informal setting to help facilitate the re-entry process. Staff and former re-entry women, sensitive to the special concerns of women returning to school, aid in peer support and retention.

The Women's Comprehensive Program advances the university's mission by providing all students with an accurate, balanced view of the contemporary urban society in which they will serve. For further information, contact the Women's Comprehensive Program, (216) 687-4674, University Center 363.

A background in Women's Studies can provide an advantage in career opportunities and advancement, inasmuch as the U.S. Department of Labor Women's Bureau projects women to be 47% of the workforce by 2012 with more jobs requiring college education.

Nance College of Business Administration

On this page:

- **Back**
- **Introduction**
- **Degrees**
- **Minor Programs**
- **Certificate Programs**
- **General Requirements**
- **Major Programs Leading to a Bachelor's Degree**
    - **Business Administration B.B.A.**
    - **Bachelor of Science in Computer and Information Science**
- **Go to College of Business Administration Web Site**

Introduction

Web site: **www.csuohio.edu/cba**

The Nance College of Business Administration prepares its graduates for professional careers in business, government, and non-profit organizations.

The bachelor's degree programs at Nance require students to explore the world of business in society, to develop managerial, technical, ethical, and critical thinking skills, and to understand the roles and responsibilities of individuals as citizens and professionals. This is accomplished through a carefully designed curriculum of "lower division" general studies courses in the humanities, natural science, mathematics, and the social sciences.

The upper-division program of study presents students with a broad foundation of knowledge and skills in the functional areas of business including accounting, finance, marketing, organizational behavior, information systems, and production/operations management. Within a major, the student acquires specialized knowledge and skills. Emphasis is placed upon individual initiative, teamwork, integrative thinking, ethical analysis, and strategic decision-making skills. Students are provided fundamental tools as well as knowledge about advances in management practice and thought to assist them in meeting the management and leadership responsibilities of business, civic, and personal life.

Degrees

The faculty of the Nance College of Business Administration confers the following undergraduate degrees:

- **Bachelor of Business Administration**
- **Bachelor of Science in Computer and Information Science**

The college also offers programs in conjunction with the College of Graduate Studies leading to the following degrees:

- Doctor of Business Administration
- Master of Accountancy
- Master of Business Administration (MBA)
- MBA in Health Care Administration
- Juris Doctor/Master of Business Administration (JD/MBA)
- Master of Science in Nursing/Master of Business Administration (MSN/MBA)
- Master of Computer and Information Science
- Master of Labor Relations and Human Resources
- Master of Public Health

For information on these programs, refer to the **Cleveland State University Graduate Catalog**, available through the College of Graduate Studies.

Minor Programs

Students outside and within the College of Business Administration may have a business minor. For details, please contact the departmental offices.

Certificate Programs

The certificate programs sponsored or co-sponsored by the College of Business Administration are described below.

- **Certificate in Global Business**
- **Certificate in Arts Management**
- **Certificate in Multimedia Advertising**
- **Certificate in Business Biotechnology**

General Requirements

- **Introduction**
- **Declaring a Major**

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- **Add/Withdrawal Policy**
- **Work Experience**

Introduction

1. A minimum of 128 credit hours of academic work is required for all students. One hour of **BUS 101**, Introduction to College Life, is required of all freshmen.
2. The accumulation of quality points must total a minimum of 2.00 times the number of credit hours taken both for business courses and overall.
3. Distribution of course work will vary within the requirements for each of the college degrees.

The general course requirements of Cleveland State University and the College of Business Administration are listed in this section for the lower- and upper-division years. In addition, students complete the requirements of the major field and electives of their choice during the final two years. Students are responsible for satisfying course prerequisites and taking courses in the correct sequence.

BBA students must complete all of the business core courses before enrolling in MLR 465 Management Strategy and Policy, the BBA program's capstone course.

The College of Business Administration may remove students from classes and/or revoke credit for courses taken out of sequence or without the required prerequisites.

Students may be required to take additional courses to substitute for courses taken out of sequence. Students with questions about prerequisites or sequencing should see an academic adviser.

NOTE: Students outside of the College of Business Administration may be allowed to enroll in business courses. However, College of Business Administration accreditation rules require that no more than 25 percent (32 semester hours) of the coursework that is counted toward a non-business bachelor's degree can be business courses unless the student also completes all of the Common Body of Knowledge (CBK) courses listed by the College of Business Administration. The 17 CBK courses are: **ACT 221**, **ACT 222**, **IST 203**, **IST 305**, **ECN 201**, **ECN 202**, **ECN 302**, **FIN 351**, **GAD 250**, **OMS 201**, **OMS 202**, **OMS 311**, **MKT 301**, **MKT 351**, **MLR 321**, **BLW 411**, and **MLR 465**.

Declaring a Major

To officially declare a major, a student must finish lower-division requirements and file a declaration of major form at the college office (BU 219).

Add/Withdrawal Policy

After the drop deadline, a business student must petition to withdraw from a business course. Petition forms may be obtained at the college office (Ahuja Hall, BU 219). Late registrations or adds are not permitted after the first week of class.

Gaining Work Experience

The College of Business Administration recognizes that in today's competitive job market, students who graduate with work experience closely related to their career preparation will have an advantage over other job-seekers. Consequently, the college encourages students to participate in internships and cooperative education programs that provide this experience. College credit can be earned with selected internship programs.

Nance College of Business Administration

Major Programs Leading to a Bachelor's Degree

- **Bachelor of Business Administration Program**
  - **Accounting**
  - **Business Administration**
  - **Business Economics**
  - **Finance**
  - **Information Systems**
  - **International Business**
  - **Management and Labor Relations**
  - **Marketing**
  - **Operations Management and Business Statistics**
- **Bachelor of Science in Computer and Information Science Program**
  - **Computer and Information Science Track (CIS)**
  - **Computer Science Track (CSC)**

Bachelor of Business Administration (B.B.A.)

On this page:

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- **Distribution Requirements**
- **Lower Division**
- **Upper Division**
- **Major Field**
- **Policy on Second Majors**
- **Lower-Division Recommended Programs**
- Majors
    - **Accounting**
    - **Business Administration**
    - **Business Economics**
    - **Finance**
    - **Information Systems**
    - **International Business**
    - **Management and Labor Relations**
    - **Marketing**
    - **Operations Management and Business Statistics**
- **Certificate Programs**

Distribution Requirements

A total of 128 semester hours are required for the B.B.A. degree. The B.B.A. student must choose a major field at the beginning of the junior year following completion of the lower-level business core and General Education Requirements. The major, however, may be changed with the permission of the program adviser. Consultation with department chairs and members of the faculty is strongly encouraged for help in choosing a major field of study.

Lower Division

Students must complete freshman and sophomore requirements in order to meet upper-division prerequisites. Course schedules for each term should follow the sequence listed in the Lower-Division Recommended Program. Requirement check sheets are available in the college office.

Upper Division

After completing lower-division requirements, all students seeking a Bachelor of Business Administration degree in the College of Business Administration are required to complete the core courses listed below. They are scheduled in the individual major fields at recommended points. Requirement check sheets are available in the college office.

Core Courses

- **ECN 302 Intermediate Microeconomics**
- **MLR 321 Organizational Behavior**
- **OMS 311 Introduction to Operations Management**
- **FIN 351 Introduction to Financial Management**
- **BLW 411 Business Law and Ethics (W)**
- **MKT 301 Introduction to Marketing**
- **IST 305 Information Technology**
- **MKT 351 Business, Society, and Government (W)**
- **MLR 465 Management Strategy & Policy (W)**

Major Field

After completing the lower-division requirements, the student will continue with upper-division core courses (**described above**) and begin study of the chosen major field. Students should complete courses in the approximate order indicated in the lower- and upper-division schedules. The major fields include accounting, business economics, finance, information systems, international business, marketing, management and labor relations, and operations management and business statistics. Each specifies minimum credit requirements. Students should refer to the suggested major program schedules for specific details.

Policy on Second Majors

Students seeking a second major who have completed the B.B.A. degree within the past five years will be required to complete only the courses in the second major field. Those who completed the B.B.A. degree more than five years ago will need to complete all College of Business Administration requirements now in effect, including both the courses in the second major field and the courses in business and economics required of all business majors.

Lower-Division Recommended Program

First Semester	Credits
ENG 101 English I	4
MTH 151 Math Concepts *	1
MTH 152 Math Concepts *	2
MTH 153 Math Concepts *	1
IST 203 Software Tools for Personal Productivity	3
Natural Science with Lab **	5
BUS 101 Intro College Life	1
Total	17

Second Semester	Credits
ENG 102 English II or approved course	3
MTH 154 Math Concepts *	1
MTH 155 Math Concepts *	2
MTH 156 Math Concepts *	1
Natural Science **	3
ECN 201 Prin of Macro	3
African-American Experience **	3
Total	16

Third Semester	Credits
ECN 202 Prin of Micro ***	3
OMS 201 Bus Stat I	3
GAD 250 Bus Com (W)	3
ACT 221 Intro Act I	3
Western Culture	4
Total	16

Fourth Semester	Credits
Nonwestern Culture **	4
OMS 202 Bus Stat II	3
ACT 222 Intro Act II	3
Social Science **	3
Diversity Course **	3
Total	16

***The Analytical Geometry & Calculus sequence (**MTH 181**-**182**) may be substituted for **MTH 151-156**.

****Before choosing electives, students should consult an adviser or see the **Degree Application Requirements** and **General Education Requirements** sections of this catalog.

*****Once ECN 201 or 202 or their equivalents have been successfully completed, no additional credit for principles-levels economics courses will be counted toward graduation in the College of Business Administration.

(**W**) Counts as a writing course for General Education Requirements. Three writing courses are required.

Accounting

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- **Major-Field Requirements**
  Recommended Program
- **Accounting Minor**
- **ACT Courses**
- **BLW Courses**
- **Go to Accounting Web Site**

Accounting (B.B.A.)
At-a-Glance

Admission to major: 2.50 grade-point average in **ACT 221** and **ACT 222** and completion of all College of Business Administration lower-division requirements

Special tracks:
Four areas of concentration are available within the accounting major: public accounting, management accounting, governmental or institutional accounting, and internal auditing.

Advising: Majors are assigned an accounting faculty adviser by the Department of Accounting. Phone (216) 687-4720

Student organizations: The Accounting Association and Beta Alpha Psi (accounting honorary)

Additional information: Cooperative education opportunities and internships are available

Accounting is one of the most firmly established professions. It offers students career opportunities in business, government, and public accounting. One primary function of accounting is to accumulate and communicate information essential to an understanding of the activities of an enterprise. The accounting program, in addition to its major concern of preparing students for careers in accounting, offers a background in business law, information systems, and tax to qualify the student for leadership in business.

Major-Field Requirements

All accounting majors must complete a minimum of 39 credits in accounting and business law.

Major-field requirements are:

- **ACT 221 Introductory Accounting I**
- **ACT 222 Introductory Accounting II**
- **ACT 321 Cost Accounting I**
- **ACT 331 Intermediate Accounting I**
- **ACT 332 Intermediate Accounting II**
- **ACT 361 Tax I**
- **ACT 388 Accounting Systems** [1]
- **ACT 441 Advanced Accounting**
- **ACT 451 Auditing** or **ACT 455 Internal Auditing**
- ACT - Accounting Elective
- **BLW 411 Business Law and Ethics ***

[1]Accounting Majors take **ACT 388** in place of **CIS 305**

Public Accounting.
An accounting major whose interest is in the direction of public accounting should consider one or more electives from the following:

- **ACT 453 Information Systems Auditing**
- **ACT 455 Internal Auditing**
- **ACT 456 Advanced Auditing Topics**
- **ACT 460 International Accounting**
- **ACT 462 Tax II**
- **ACT 484 Governmental and Institutional Accounting**
- **ACT 490 Accounting Internship**

Management Accounting.
Majors interested in management accounting should consider one or more electives from the following:

- **ACT 422 Cost Accounting II**

- **ACT 455 Internal Auditing**
- **ACT 460 International Accounting**
- **ACT 490 Accounting Internship**

Governmental or Institutional Accounting.
Majors interested in governmental or institutional accounting should consider one or more electives from the following:

- **ACT 455 Internal Auditing**
- **ACT 456 Advanced Auditing Topics**
- **ACT 460 International Accounting**
- **ACT 462 Tax II**
- **ACT 484 Governmental and Institutional Accounting**
- **ACT 490 Accounting Internship**

Internal Auditing.
Accounting and non-accounting majors interested in internal auditing should consider one or more electives from the following:

- **ACT 453 Information Systems Auditing**
- **ACT 455 Internal Auditing**
- **ACT 456 Advanced Auditing Topics**
- **ACT 490 Accounting Internship**

Recommended Program:

Fifth Semester	**Credits**
ACT 321 Cost Accounting I	3
ACT 331 Intermediate Accounting I	4
ECN 302 Intermediate Microeconomics *	3
MLR 321 Organizational Behavior *	3
MKT 301 Introduction to Marketing *	3
Total	16

Sixth Semester	**Credits**
ACT 332 Intermediate Accounting II	4
ACT 388 Accounting Systems	3
OMS 311 Introduction to Operations Management *	3
BLW 411 Business Law and Ethics * (w)	3
Humanities and Arts	3
Total	16

Seventh Semester	**Credits**
ACT 441 Advanced Accounting	4
ACT 361 Tax I	3
FIN 351 Introduction to Financial Management *	4
Accounting Elective	3
Humanities and Arts	3
Total	17

Eighth Semester	**Credits**
ACT 451 Auditing or **ACT 455 Internal Auditing**	3
ACT Accounting Elective	3
MLR 465 Management Strategy and Policy * (w)	3
Accounting or Business Elective	3
Humanities and Arts	3
Total	15

* All BBA core courses must be completed prior to taking MLR 465, the capstone course in the BBA program.

*****Counts as a writing course for university graduation requirements. Three writing courses are required. Thus, one elective must also be a writing course.

Accounting Minor

An accounting minor is available to students enrolled in the College of Business Administration and other colleges of the university. For information, contact the department offices at (216) 687-4720.

Business Administration Major

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- **Major-Field Requirements**
  Recommended Program
- **Go to College of Business Administration Web Site**

Business Administration (B.B.A.)
At-a-Glance

Cleveland State University offers a flexible educational opportunity for the non-traditional student to complete the Bachelor of Business Administration degree with a general Business Administration major. The Business Administration major prepares students with foundation courses in business and a broad cross-section of advanced business courses in various functional areas. Courses for this program are offered during the day and evening at both the main campus and various off-campus sites. The program is composed of lower-division and upper-division core courses as required by the B.B.A. degree and a choice of Business Administration major courses that can be selected from various business disciplines.

This program is for you if:

- You have completed two years at a community college and fulfilled Cleveland State University's Transfer Module requirements OR
- You are a part-time student who would like to accelerate degree completion by picking up evening and weekend classes OR
- You want to earn a certificate in a particular field of interest OR
- You want to take courses for self-improvement or career advancement

Program Highlights

The Bachelor of Business Administration degree with a major in Business Administration:

- Enables you to develop breadth of knowledge in the field of business administration
- Increases your transfer opportunities if you have previous college credits
- Permits flexibility to take advanced business courses that fit your schedule and professional needs
- Prepares you with foundation coursesfor the MBA degree
- Gives you the flexibility of taking additional courses and earning other majors/minors in the college

Major-Field Requirements

Business Administration Major Courses

The major in Business Administration consists of 28 credit hours of 300/400 level business electives beyond the B.B.A. degree's core requirements. Electives must be selected from *a minimum of four* of the following seven business disciplines: accounting (ACT); finance (FIN); information systems (IST); international business (INB); management and labor relations (MLR); marketing (MKT); and operations management and business statistics (OMS). Please consult this CSU Undergraduate Catalog for course descriptions and check CampusNet or a College of Business undergraduate adviser in Ahuja Hall, BU 219, for course availability.

Recommended Program:

The following sequence of courses has been developed by the College of Business Administration faculty. If you enroll for courses each semester as indicated, you will have the proper prerequisites and background to obtain the maximum benefit from these requirements. Any exceptions to this program should be discussed with your adviser. Students taking courses without proper prerequisites may lose credit and may be required to take additional courses.

For courses offered, please refer to the class schedule on **CampusNet**. Click each course below for its description.

Recommended Program for Undergraduate Business Administration Major

Fifth Semester	Credits
MKT 301 Introduction to Marketing *	3
ECN 302 Intermediate Microeconomics *	3
FIN 351 Introduction to Financial Management *	4
MLR 321 Organizational Behavior *	3
Arts and Humanities	3
Total	16

Sixth Semester	Credits
MKT 351 Business, Society, & Government * (W)	3
OMS 311 Introduction to Operations Management *	3
BLW 411 Business Law and Ethics * (W)	3
IST 305 Information Technology *	3
Major Field Elective	4
Total	16

Seventh Semester	Credits
Major Field Elective	4
Major Field Elective	4
Major Field Elective	3
Major Field Elective	3
Arts and Humanities	3
Total	17

Eighth Semester	Credits
MLR 465 Management Strategy & Policy * (W)	3
Major Field Elective	4
Major Field Elective	3
Major Field Elective	3
Arts and Humanities	3
Total	16

* BBA core courses must be completed prior to taking MLR 465, the capstone course.

(W) Denotes writing-across-the-curriculum course. Three writing courses are required.

Business Economics

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- **At-a-Glance**
- **Major-Field Requirements**
  Recommended Program
- **Go to Business Administration College Web Site**

Business Economics (B.B.A.)

At-a-Glance

Admission to major: Completion of all College of Business Administration lower-division requirements

Advising: Business economics majors are advised by the College of Business Administration Advising Office.

This program is designed for students interested in the application of advanced economic analysis, principles, and thinking to the management and operation of business organizations and governmental or quasi-public institutions. The curriculum affords an opportunity to couple knowledge of the structure and operation of our economy with the decision theory and problem-solving approach used in modern business administration.

Major-Field Requirements

In addition to the degree program's required core courses, students must complete:

- **ECN 301**
  (Intermediate Macroeconomics), and a minimum of four additional courses from the following, for a minimum of 15 credit hours.
- **ECN 322 Statistics and Econometrics**
- **ECN 330 Managerial Economics**
- **ECN 333 Economics of Health**
- **ECN 355 Money and Banking**
- **ECN 360 Public Sector Economics**
- **ECN 433 Industrial Organization**
- **ECN 441 Business Fluctuation and Forecasting**
- **ECN 450 Economics of Law**
- **ECN 474 Envir. & Natural Resource Economics**
- **ECN 475 Labor Economics**
- **ECN 482 International Economics**

Recommended Program:

Fifth Semester	**Credits**
ECN 301 Intermediate Macroeconomics	3
MKT 351 Business, Society, and Government (w)	3
MLR 321 Organizational Behavior	3
Elective	4
Elective	3
Total	16

Sixth Semester	**Credits**
OMS 311 Introduction to Operations Management	3
ECN 302 Intermediate Micro Economics	3
FIN 351 Introduction to Financial Management	4
MKT 301 Introduction to Marketing	3
Humanities & Arts	3
Total	16

Seventh Semester	**Credits**
IST 305 Information Technology	3
BLW 411 Business Law and Ethics (w)	3
ECN Elective	3

ECN Elective	4
Humanities & Arts	3
Total	16

Eighth Semester	**Credits**
MLR 465 Management Strategy and Policy (w)	3
ECN Elective	3
ECN Elective	4
Elective	3
Humanities & Arts	3
Total	16

(w) Counts as a writing course for university graduation requirements. Three writing courses are required.
Note: All BBA core courses listed above must be completed prior to taking MLR 465, the capstone course.

Finance

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- **Major-Field Requirements**
  Recommended Program
- **Finance Minor**
- **FIN Courses**
- **Go to Finance Department Web Site**

Finance (B.B.A.)
At-a-Glance

The Finance major within the BBA degree program prepares students with a broad foundation of business knowledge and management skills, and proficiency in finance for professional careers in the financial departments of industrial, commercial, and financial institutions, investment firms, real estate firms, insurance companies, and government and public agencies.

The Finance major curriculum introduces business students to theories, concepts, practices, and advances in financial analysis, ethical decision making, and financial management. Topics covered include risk estimation and solutions; efficient management of funds, selection of alternative sources of financing, the financial adaptation of the firm and the individual investor to a dynamic economic and political environment, the fundamental and technical valuation of various types of assets, and the determination of appropriate investment policies for the firm and the individual within the U.S. as well as the international environment.

Admission to Major:

- Completion of all College of Business Administration lower-division requirements.
- Submit an official Declaration of Major in the Office of Undergraduate Advising, BU 219.

Faculty:
The Finance faculty is recognized nationally and internationally for its expertise and scholarship. The Center for Real Estate Research is especially well known throughout the world, most notably in the area of real estate investments.

Specialization: Students may choose from four areas of specialization:

- Investment Management
- Management of Financial Institutions
- Real Estate
- Financial Management

Advising: Declared Finance majors are assigned a faculty adviser; call (216) 687-4716 for information.

Student organizations: Student Chapter, Financial Management Association (FMA); telephone: 216-687-3939.

Internships:
Finance majors are encouraged to gain practical experience in finance by doing professional internships with area firms. Internships may be done for credit. For more information, contact the Finance Department (216-6-4716) or the College of Business Career Services Office in BU 212 (216-687-6933).

Financial Assistance:
Scholarships, grants, loans, work-study, and part-time employment are available to help students pay for college costs. For information, please contact the Financial Aid Office at 216-687-3764 or visit their Web site at **www.csuohio.edu/financialaid/**.

Major-Field Requirements

Note: effective Spring 2008: To earn a major in Finance, a student must complete 24 credits of finance courses beyond **FIN 351** and an advanced course in accounting. The Finance major must earn at least a grade of C or better in **FIN 351** Introduction to Financial Management and in the two required core courses in the major (**FIN 353** Introduction to Investments and **FIN 360** Financial Markets and Institutions). The Finance major must also earn a C or better in a minimum of 16 additional credit hours of 400-level finance elective courses.

Recommended Program:

Fifth Semester	**Credits**
IST 305 Information Technology *	3
FIN 351 Introduction to Financial Management *	4
ECN 302 Intermediate Microeconomics *	3
MKT 301 Introduction to Marketing *	3
MLR 321 Organizational Behavior *	3
Total	16

Sixth Semester	Credits
FIN 353 Introduction to Investments *	4
FIN 360 Financial Markets and Institutions *	4
OMS 311 Introduction to Operations Management *	3
MKT 351 Business, Society, and Government * (w)	3
Humanities and Arts	3
Total	17

Seventh Semester	Credits
BLW 411 Business Law and Ethics * (w)	3
Finance Elective	4
Finance Elective	4
Humanities and Arts	3
Total	14

Eighth Semester	Credits
MLR 465 Management Strategy and Policy * (w)	3
Finance Elective	4
Finance Elective	4
Accounting Elective	3
Humanities and Arts	3
Total	17

*****Core courses in the BBA curriculum must be completed prior to registering for MLR 465, the capstone course.

Courses designated with a (w) are writing courses required for university graduation. Three writing courses are required.

Finance Major Core Courses and Electives

FIN 351 Introduction to Financial Management (4-0-4). **BBA core.**
FIN 353 Introduction to Investments (4-0-4). Prerequisite: FIN 351. **Major core.**
FIN 360 Financial Markets and Institutions (4-0-4). Prerequisite: FIN 351. **Major core.**
FIN 454 Advanced Investments (4-0-4). **Formerly FIN 354*. Prerequisite: FIN 353.
FIN 461 Bank Management (4-0-4). **Formerly FIN 361.* Prerequisite: FIN 351.
FIN 465 International Finance and Investment (4-0-4). **Formerly FIN 365.* Prerequisite: FIN 351.
FIN 470 Introduction to Risk and Insurance (4-0-4). **Formerly FIN 370.* Prerequisite: FIN 351.
FIN 471 Life and Health Insurance (4-0-4). **Formerly FIN 371.* Prerequisite: FIN 470.
FIN 477 Real Estate Finance (4-0-4). **Formerly FIN 377.* Prerequisite: FIN 351.
FIN 479 Real Estate Investment (4-0-4). **Formerly FIN 379.* Prerequisite: FIN 351.
FIN 480 Case Problems in Finance (4-0-4). **Formerly FIN 380.* Prerequisite: FIN 351.
FIN 484 Capital Budgeting Decisions (4-0-4). **Formerly FIN 384.* Prerequisite: FIN 351.
FIN 490 Professional Internship (1 to 4 credits). Prerequisites: FIN 351, junior standing, permission of chairperson.
FIN 493 Special Topics in Finance (4-0-4). **Formerly FIN 352.* Prerequisite: FIN 351.
FIN 496 Independent Study
(1 to 4 credits). Prerequisites: FIN 351, senior standing, approval of sponsoring faculty and department chair.

**Note: the newer course numbers were effective from Spring 2007.*

Finance Minor

A minor in Finance can provide business or non-business students with specialized knowledge about finance and a valuable credential in applying for or advancing in certain careers.

The program of courses for the Finance minor is as follows:

Required Core (11 credits):

ACT 222 Introductory Accounting II *
FIN 351 Introduction to Financial Management *
FIN 353 Introduction to Investments

Electives (8 credits)

FIN 360 Financial Markets and Institutions
FIN 454 Advanced Investments ***Formerly FIN 354*
FIN 461 Bank Management ***Formerly FIN 361.*
FIN 465 International Finance and Investment ***Formerly FIN 365.*
FIN 470 Introduction to Risk and Insurance ***Formerly FIN 370.*
FIN 471 Life and Health Insurance ***Formerly FIN 371.*

FIN 477 Real Estate Finance ***Formerly FIN 377.*
FIN 479 Real Estate Investment ***Formerly FIN 379.*
FIN 480 Case Problems in Finance ***Formerly FIN 380.*
FIN 484 Capital Budgeting Decisions ***Formerly FIN 384.*

* ACT 222 and FIN 351 have prerequisites; please check the online catalog: **www.csuohio.edu/undergradcatalog07/**

***Note: the newer course numbers were effective as of Spring 2007.*

The Finance minor is available to students enrolled in the College of Business Administration or in other colleges of the university. For more information on the 19-credit Finance minor, please call the Finance Department at (216) 687-4716.

Information Systems

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- **Major-Field Requirements**
  Recommended Program
- **IST Courses**
- **Go to Computer & Information Science Web Site**

Information Systems (B.B.A.)

At-a-Glance

Admission to major: 2.0 grade-point average or better and completion of all College of Business Administration lower-division requirements.

Advising: Each student is assigned an adviser by the department after declaring the major; phone: (216) 687-4760.

Student organizations: Association for Computing Machinery (ACM), Northeast Ohio Software Association (NEOSA) .

The Information Systems (IS) major is designed to prepare a student for a career in information systems. IS, as a field of study, began in the 1960s and has grown in scope and depth. As an academic discipline it encompasses two broad areas:

- acquisition, deployment and management of Information Technology (IT) resources and services;
- development of IS infrastructure to support the organization process.

The IS function in an organization has a broad responsibility:

- acquisition, development and management of IT such as computers and communications;
- development and management of corporate data;
- tracking new information technology;
- assisting users in use of new technology; and
- assisting in organization-wide IT strategy planning and implementation.

Graduates of IS programs will have a combined preparation in business core courses and applied computing. They will not only have the necessary managerial and business knowledge to solve business problems in functional areas such as accounting, finance, marketing and management, but also technical skills to develop and support information systems with a varying degree of scope.

Major-Field Requirements

Required Courses:

- **IST 203 Software Tools for Personal Productivity** [1]
- **IST 211 Fundamentals of Systems Development**
- **IST 221 Information Systems in the Organization**
- **IST 311 Advanced Programming of Business Systems**
- **IST 321 Systems Analysis Methods**
- **IST 331 Modern Database Design and Implementation**
- **IST 341 Management of Business Networks**
- **IST 465 Enterprise Integration Systems**

Electives[2]:

Choose at least nine hours from the following courses.

- **IST 410 Object-Oriented Programming for Business Applications** (4 credit hours)
- **IST 420 Project Management for Information Systems** (3 credit hours)
- **IST 430 Knowledge Management** (3 credit hours)
- **IST 450 Web-Based Programming** (3 credit hours)
- **IST 461 Electronic Business** (3 credit hours)

Math Courses

Although **MTH 151-156** may be used to satisfy the math requirement, students are encouraged to take **MTH 181-182** as an alternative.

Further Note:

All IST and CIS courses must be passed with a grade of C or better.

The CIS department also offers another degree, the **Bachelor of Science in Computer and Information Science**.

Recommended Program of Study [3]

First Semester [3]	Credits
Natural Science with Lab [2]	5
ENG 101 English I	4
MTH 151 Math Concepts [4]	1
MTH 152 Math Concepts[4]	2
MTH 153 Math Concepts [4]	1
IST 203 Software Tools for Personal Productivity [1]	3
BUS 101 Intro College Life	1
Total	17

Second Semester [3]	Credits
African-American Experience [2]	3
Natural Science [2]	3
ENG 102 English II or approved course	3
MTH 154 Math Concepts [4]	1
MTH 155 Math Concepts [4]	2
MTH 156 Math Concepts [4]	1
ECN 201 Prin of Macro	3
Total	16

Third Semester [3]	Credits
Western Culture [2]	4
ACT 221 Intro Act I	3
ECN 202 Prin of Micro[6]	3
GAD 250 Bus Com, (W) [7]	3
OMS 201 Bus Stat I	3
Total	16

Fourth Semester [3]	Credits
Diversity Course [2]	3
ACT 222 Intro Act II	3
OMS 202 Bus Stat II	3
IST 211 Fund. of Sys Dev	3
IST 221 Info Sys in Org [5]	3
Total	15

Fifth Semester	Credits
Social Science [2]	3
ECN 302 Intermediate Microeconomics	3
MKT 301 Introduction to Marketing	3
IST 311 Adv Prog of Business Systems	3
IST 321 Systems Analysis Methods	4
Total	16

Sixth Semester	Credits
Arts and Humanities [2]	3
MLR 321 Organizational Behavior	3
OMS 311 Intro to Operations Management	3

IST 331 Design and Implementation of DBMS	4
IST 341 Networks and Telecommunication	4
Total	17

Seventh Semester	**Credits**
Arts and Humanities [2]	3
MKT 351 Bus, Soc & Gov (W) [7, 8] ***or*** **BLW 411 Business Law and Ethics (W)** [7, 8]	3
FIN 351 Introduction to Financial Management	4
IST Elective[2]	3
IST Elective [2]	3
Total	16

Eighth Semester	**Credits**
Arts and Humanities [2]	3
Nonwestern Culture [2]	4
MLR 465 Mgt. Strategy and Policy (W) [7]	3
IST 465 Enterprise Integration Systems	3
IST Elective [2]	3
Total	16

[1] *Required as part of the B.B.A. core; does not count toward hours in the major.*

[2] *Students should see a faculty adviser before choosing electives.*

[3] *The first four semesters for Information Systems majors are slightly different from the recommended schedule for other B.B.A. majors.*

[4] *The Analytical Geometry & Calculus sequence (**MTH 181-182**) may be substituted for MTH 151-156.*

[5] *Information Systems majors take **IST 221** instead of IST 305.*

[6]

Once ECN 201 or 202 or their equivalents have been successfully completed, no additional credit for principles-levels economics courses will be counted toward graduation in the College of Business.

[7] *(W)Counts as a writing course for the General Education Requirements. Three writing courses are required. The BBA core courses must be completed prior to taking MLR 465, the capstone course in the BBA degree program.*

[8] *Information Systems majors take MKT 351 or BLW 411 but not both.*

International Business

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- **Major-Field Requirements**
  Recommended Program
- **INB Courses**
- **Go to International Business Program Web Site**

International Business (B.B.A.)
At-a-Glance

Admission to major: Completion of all College of Business Administration lower-division requirements.

Advising:
International Business (IB) majors and prospective majors should consult with the Department of Marketing, which is responsible for administering the IB Program. Call 216-687-4771 to make an appointment.

Web site: www.csuohio.edu/cba/mkt/ib.html

The Bachelor of Business Administration degree in International Business (IB) prepares students to manage and lead in a variety of internationally oriented organizations in today's increasingly interdependent global economy. This major allows students to gain the knowledge and skills required for international business careers while developing an understanding of the political, cultural and regulatory environments that shape international business and trade.

International Business majors take a comprehensive curriculum that includes courses in business, language, political science, and culture related to their region of interest, and are strongly encouraged to participate in study-abroad and internship programs offered by the Nance College.

Major-Field Requirements

International Business majors must take 29 credit hours beyond the college core requirements in the following four components:

I. International Business Core Component

The IB major must take three courses in the IB Core.

- **INB 301 Introduction to International Business** (4-0-4) OR
  MKT 321 International Business (4-0-4) — Mandatory;

  and *any two courses* from the following list:

- **FIN 365 International Finance** (4-0-4)
- **ACT 460 International Accounting** (3-0-3)
- **MKT 461 Global Marketing** (4-0-4)
- **MLR 487 International Management**
- **OMS 425 International Operations Management** (3-0-3)
- **IST 461 E-Business** (3-0-3)
- **ECN 482 International Economics** (4-0-4)
- **INB 493 Special Topics** (1-4)
- **INB 496 Independent Study** (1-4)

II. Language Component

IB majors are required to have competency in a language other than English. Students entering CSU with 200-level proficiency in speaking and writing skills of another language will be waived from this requirement. All other students must complete the intermediate level sequence (201/202 or other approved courses) of a foreign language.

III. Political and Cultural Component

Students must choose *one course* from the following list.

- **PSC 231 International Politics** (4-0-4)
- **PSC 324 Russia and the Successor States** (4-0-4)
- **PSC 325 Western European Politics** (4-0-4)
- **PSC 328 International Political Economy** (4-0-4)
- **PSC 331 US Foreign Policy** (4-0-4)
- **PSC 333 Latin American Politics** (4-0-4)
- **PSC 335 East Asian Politics** (4-0-4)
- **PSC 338 Central and Eastern Europe** (4-0-4)
- **HIS 200 Introduction to Geography** (4-0-4)

- **HIS 320 US Foreign Policy since 1900** (4-0-4)
- **SOC 210 Sociology of the Third World** (3-0-3)
- **SOC 389 Sociology of Non-Western Societies** (4-0-4)

In order to get sufficient exposure to international business environments, students who are fulfilling General Education Requirements are encouraged to choose Western, Nonwestern and Social Science courses that have signficant international content. Consult with the IB adviser for a list of recommended courses.

IV. IB Experiential Component

Students must choose *one course* from the following list.

- **MKT 440 Marketing Field Experience Abroad** (4 credits)
- **INB 490 International Business Internship** (1-4 credits)
- **INB 491 International Study Tour** (1-3 credits)
- **INB 492 International Business Study Abroad** (1- 4 credits)

Students who participate in **INB 490**
(International Business Internship) can register in approved classes at partnering universities. The credit hours earned at the partnering university will be transferred as credits earned under **INB 492**.

Recommended Program*

Fifth Semester	Credits
MKT 301 Introduction to Marketing	3
MKT 351 Business, Society and Government (W*)	3
FIN 351 Introduction to Financial Management	4
MLR 321 Organizational Behavior	3
ECN 302 Intermediate Microeconomics	3
Total	16

Sixth Semester	Credits
INB 301/MKT 321 International Business	4
Modern Language I	4
IST 305 IT for Competitive Adv	3
OMS 311 Introduction to Production Management	3
Elective (Arts & Humanities)	3
Total	17

Seventh Semester	Credits
International Business Core	3/4
Political/Cultural Component	4
Modern Language II	4
BLW 411 Business Law and Ethics (W)*	3
Total	14/15

Eighth Semester	Credits
MLR 465 Management Strategy and Policy (W)*	3
International Business Core	3/4
Experiential Requirement	3/4
Elective (Arts & Humanities)	3
Elective (Arts & Humanities)	3
Total	15-17

(W)
indicates a Writing-Across-the-Curriculum course for university requirements. A minimum grade of C is required to satisfy the writing requirement.

Note: In order to be eligible to enroll in the language courses required for the International Business major, students must have at least introductory level proficiency (101/102) in a foreign language. If the introductory and/or intermediate level courses are bypassed or waived, additional electives will be needed to reach the 128 credit-hour total required for graduation. International Business majors are strongly advised to enroll in additional language courses if such elective hours are needed.

Management and Labor Relations

On this page:

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- **Major-Field Requirements**
  Recommended Program
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- **MLR Courses**

- **Go to Management and Labor Relations Web Site**

Management and Labor Relations (B.B.A.)

At-a-Glance

Admission to Major: Completion of all College of Business Administration lower-division requirements

Advising: Majors should contact the department at (216) 687-4754 for information on faculty adviser assignment

Student organizations: Student Chapter, Society for Human Resource Management

Evening Program:
Students can complete a major in Management and Labor Relations in the evening. Most major courses are offered at least once a year in the evening.

Faced with changing markets, dynamic technologies, globalization, and increasingly diverse work forces, today's managers must be prepared to meet a multitude of challenges and opportunities. The Department of Management and Labor Relations offers courses, degrees, and certificate programs that can prepare students to become effective managers for the 21st century.

The department offers both a major and a minor. Students who choose to major in Management and Labor Relations select either the human resource or general management track for concentration. Students completing minors complete core courses, plus a focus area of their choosing.

Courses in the Management and Labor Relations major qualify students for entry-level positions in management, and should enable them ultimately to assume managerial positions in a variety of profit or nonprofit organizations.

Major-Field Requirements

Students majoring in Management and Labor Relations are required to complete these core requirements:

- **MLR 301 Principles of Management**
- **MLR 302 Principles of Labor Relations**
- **MLR 340 Human Resource Management**

In addition to the department's core courses, students are required to select a track and complete course requirements for the track that they have chosen to follow.

Major tracks: Management and Labor Relations majors choose to follow either the **general management track** or the **human resource management track** (see descriptions below).

General Management Major Track:

This program focuses on developing a student's technical knowledge of the key management functions of planning, controlling, organizing, leading, and problem-solving. In addition, students are given opportunities to develop basic interpersonal skills vital to successful management of people in organizations.

Students choosing the General-Management Track must complete nine credits from the following courses:

- **MLR 404 Organizational Theory and Design**
- **MLR 421 Comparative Labor Systems**
- **MLR 443 Entrepreneurship**
- **MLR 447 Cross-Functional Management**
- **MLR 477 Managerial Skill Development**
- **MLR 487 International Management**

Students must also take two additional MLR elective courses. Students should consult with their adviser to determine appropriate elective courses.

Human Resource Management Major Track:

This program focuses on developing a student's knowledge and skills in areas related to the development and management of human resources.

Courses in this track explore many of the contemporary issues facing human resource professionals today, and provide students with an introduction to challenges they will face in their future careers.

Students choosing the Human Resource Management Track must complete nine credits from the following courses:

- **MLR 341 Personnel Compensation, Performance Appraisal, and Job Evaluation**
- **MLR 342 Staffing Organization**
- **MLR 343 Employee Training and Development**

- **MLR 411 Labor History**
- **MLR 422 Labor Law**
- **MLR 431 Employment Practices Law**
- **MLR 455 Employee Relations and the Quality of Working Life**
- **MLR 457 Human Resource Information Systems**

Students must also take two additional MLR elective
courses; students should consult with their adviser to determine appropriate elective courses.

Recommended Program

Fifth Semester	**Credits**
MLR 301 Principles of Management	3
MLR 302 Principles of Labor	3
ECN 302 Intermediate Microeconomics *	3
MKT 351 Business, Society, and Government * (w)	3
FIN 351 Introduction to Financial Management *	4
Total	16

Sixth Semester	**Credits**
MLR 321 Organizational Behavior *	3
MLR 340 Human Resource Management	3
MKT 301 Introduction to Marketing *	3
MLR Track Requirement	3
Humanities and Arts	3
Total	15

Seventh Semester	**Credits**
OMS 311 Introduction to Operations Management *	3
IST 305 Information Technology *	3
MLR track requirement	3
BLW 411 Business Law and Ethics * (w)	3
Humanities and Arts	3
Total	15

Eighth Semester	**Credits**
MLR 465 Management Strategy and Policy * (w)	3
MLR track requirement	3
MLR track requirement	3
MLR track requirement	3
MLR/Business Elective	3
Humanities and Arts	3
Total	18

*BBA core courses must be completed prior to taking MLR 465, the capstone course.
(w): Counts as a writing course for university graduation requirements. Three writing courses are required.

Minor-Field Requirements

The department also offers a 15-credit minor in Management and Labor Relations. The minor has three core courses: **MLR 301**, **MLR 321**, and **MLR 340**. Students choose the remaining courses from focus areas of either general management, human resource management, labor relations, or health care administration.

Minor Focus Areas:

General Management (pick any two courses)

- **MLR 404 Organizational Theory and Design**
- **MLR 443 Entrepreneurship**
- **MLR 447 Planning and Control**
- **MLR 477 Managerial Skill Development**
- **MLR 487 International Management**

Human Resource Management (pick any two courses)

- **MLR 341 Personnel Compensation, Performance, and Job Evaluation**
- **MLR 342 Staffing Organization**
- **MLR 343 Employee Training and Development**
- **MLR 431 Employment Practices Law**
- **MLR 455 Employee Relations and Quality of Working Life**
- **MLR 457 Human Resource Information Systems**

Labor Relations (pick any two courses)

- **MLR 302 Principles of Labor Relations**
- **MLR 411 Labor History**
- **MLR 421 Comparative Labor Systems**
- **MLR 422 Labor Law**
- **MLR 423 Labor Relations in Public Sector Employment**

Health Care Administration

- **HCA 301 American Health Care System**
- **HCA 420 Management of Health Care Organizations**

Marketing

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  Recommended Program
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- **MKT Courses**
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Marketing (B.B.A.)
At-a-Glance

Admission to major: Completion of lower-division business requirements and a grade of "C" or better in MKT 301.

Special tracks: Sales management, consumer marketing, business-to-business marketing, international marketing

Marketing credit hours required for major:
A minimum of 24 beyond the College of Business core requirements with a minimum grade of C in each course.

Student organizations:
Student chapter, American Marketing Association. For more information, call the student chapter office at (216) 523-7301 or visit the Department of Marketing's Web page at **www.csuohio.edu/cba/mkt**.

Advising:
Students who declare Marketing as a major will be assigned a faculty adviser by the department. The student should meet regularly for advice on course work and other academic or professional issues. For advising information, call (216) 687-4771, inquire by e-mail at **marketing@csuohio.edu** or visit the department office in Ahuja Hall 460.

Additional information:
Internships, cooperative education arrangements, independent study projects, and international study programs are available. A major in Marketing can be earned by attending either day or evening classes. At least two electives and all of the required courses are offered regularly in the evening during the academic year.

Marketing is a visible cultural phenomenon and an indispensable business activity for profit and nonprofit organizations worldwide. Marketing generates revenue for the firm by identifying customer needs and responding to them creatively and profitably by developing, pricing, promoting, and distributing goods and services. Because of its central role in the success of a business, marketing represents a promising career path to top management positions.

Students graduating with a major in Marketing can qualify for entry-level positions in sales, public relations and advertising, product management, fundraising, customer service, marketing research, retailing management, wholesale distribution, marketing planning, and related areas in business, government, and nonprofit organizations.

Major-Field Requirements

Students majoring in Marketing must complete a minimum of 24 credit hours of marketing coursework beyond the college core requirements, which include MKT 301.

A) The following three courses (12 credit hours):

- **MKT 420 Buyer Behavior**
- **MKT 431 Marketing Research**
- **MKT 464 Marketing Strategy**

B) And a minimum of three marketing electives (12 credit hours). (See list of elective courses below under "**Minor-Field Requirements**.")

Students should note the prerequisites for all courses. Students taking courses without having the proper prerequisites may lose credit and may be required to take additional courses.

Below is a suggested sequence for completing the B.B.A. degree in Marketing.

Recommended Program

Fifth Semester	**Credits**
MKT 301 Introduction to Marketing	3
MKT 351 Business, Society, and Government *	3
FIN 351 Introduction to Financial Management	4
MLR 321 Organizational Behavior	3
ECN 302 Intermediate Microeconomics	3
Total	16

Sixth Semester	**Credits**
MKT 420 Buyer Behavior	4
MKT 431 Marketing Research	4

IST 305 Information Technology	3
OMS 311 Introduction to Operations Management	3
Elective (Humanities and Arts)	3
Total	17

Seventh Semester	**Credits**
MKT 464 Marketing Strategy	4
Marketing Elective	4
Marketing Elective	4
BLW 411 Business Law and Ethics *	3
Total	15

Eighth Semester	**Credits**
MLR 465 Management Strategy and Policy *	3
Marketing Elective	4
Marketing/Business Elective	3/4
Elective (Arts and Humanities)	3
Elective (Arts and Humanities)	3
Total	16/17

**Counts as a writing course for university graduation requirements. Three writing courses are required by the university.*

Minor-Field Requirements

The Marketing minor is recommended for business and non-business students who want to consider sales and marketing careers or want to complement their area of study. Credit-hour requirements for the Marketing minor will range from 16 hours for a business student up to a maximum of 19 hours for a non-business student.

Core Course:

- **MKT 301 Introduction to Marketing**

Elective Courses (choose any four courses):

- **MKT 321 International Business** OR
  INB 301 Introduction to International Business
- **MKT 411 Retail Management**
- **MKT 420 Buyer Behavior**
- **MKT 431 Marketing Research**
- **MKT 440 Field Experience Abroad**
- **MKT 441 Advertising and Promotion Management**
- **MKT 450 Professional Selling and Sales Management**
- **MKT 452 Business-to Business Marketing**
- **MKT 454 Internet Marketing**
- **MKT 456 Customer Relationship Management**
- **MKT 461 Global Marketing**

Note: MKT 351 will not count as an elective course for the minor.

Operations Management and Business Statistics

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- **OMBS Minor**
- **Certificate Programs**
    - **Arts Management**
    - **Business Biotechnology**
- **OMS Courses**
- **Go to OMBS Web Site**

Operations Management and Business Statistics (B.B.A.)

At-a-Glance

Admission to major: Completion of all College of Business Administration lower-division requirements

Major: 20 credit hours of OMS major electives (college core requirements cannot count as OMS major electives)

Minor: 16 credit hours

Special tracks: There are two areas of concentration within the major: operations management and business statistics

Advising: Operations Management and Business Statistics majors are assigned a faculty adviser by the department office.

Student organization: Student Chapter, APICS (American Production and Inventory Control Society)

Additional information: Cooperative education, internship, and travel opportunities are available

Manufacturing and service companies must improve their operation, productivity, and quality in order to compete in today's world economy. The objective of the two major programs in the OMS Department is to prepare students to assume various line and/or staff positions in the production/service operation of business organizations. Students interested in pursuing graduate studies in the future will also find that OMS major programs provide a strong background in quantitative analysis.

Operations Management Track

This track is designed for students who wish to begin their professional careers in the production or service operation of an organization.

Manufacturing companies need line managers who are knowledgeable in production processes and operations management techniques. Students interested in manufacturing careers should take the three courses corresponding to the six test modules of CPIM certification of the American Production and Inventory Control Society (APICS), namely **OMS 413**, **417**, and **419**. CPIM certification is essential for promotion to managerial positions in the manufacturing area.

Job opportunities exist in banks, transportation companies, engineering firms, distribution and retail operations, professional and consulting companies, and government organizations.

Business Statistics Track

Statistics are widely used in today's business and government organizations. The Business Statistics Track is designed for students who want to begin their careers in operations planning, marketing research, investment and financial analysis, insurance, general management, econometrics, and the administration of government or nonprofit organizations.

Major-Field Requirements

Students majoring in Operations Management and Business Statistics must take 20 credit hours in the College of Business Administration beyond the college core requirements. These 20 credit-hour courses will be designated as OMS major electives. Among these 20 credit-hours of OMS major electives, a minimum of 15 credit hours must be 300 - or 400-level courses in the Department of Operations Management and Business Statistics. Up to a maximum of 5 credit hours may be taken outside the department. Students are encouraged to check with their faculty adviser or the department chair when choosing courses outside the OMS Department as OMS major electives.

Students choosing the Operations Management Track must take at least 15 credit hours from the following list of courses:

- **OMS 312 Operations Research**
- **OMS 412 Supply Chain Management**
- **OMS 413 Production Planning and Control**
- **OMS 415 Cases in Operations Management**
- **OMS 417 Principles of Lean Operations**
- **OMS 419 Manufacturing Systems and Technologies**
- **OMS 421 Service Operations Management**
- **OMS 422 Project Management**

- **OMS 425 International Operations Management**
- **OMS 431 Sampling and Experimental Design**
- **OMS 433 Data Analysis**
- **OMS 445 Quality Control and Management**
- **OMS 448 Queuing and Simulation**
- **OMS 490 Internship**

Students choosing the Business Statistics Track should take at least 15 hours from the following list of courses:

- **OMS 312 Operations Research**
- **OMS 431 Sampling and Experimental Design**
- **OMS 433 Data Analysis**
- **OMS 435 Forecasting**
- **OMS 445 Quality Control and Management**
- **OMS 448 Queuing and Simulation**
- **OMS 490 Internship**

OMS majors may substitute other OMS upper-division courses from the lists for their areas of concentration.

Additional OMS major electives consist of all OMS 300- and 400-level courses, or other approved courses in the university.

Students should note the prerequisites for all courses. Students taking courses without having fulfilled the proper prerequisites may lose credit and may be required to take additional courses.

Listed **below** is a suggested schedule for completing the OMS major.

Recommended Program for Operations Management and Business Statistics

Fifth Semester	**Credits**
ECN 302 Intermediate Micro-economics	3
FIN 351 Introduction to Financial Management	4
OMS 311 Introduction to Operations Management	3
MKT 301 Introduction to Marketing	3
MLR 321 Organizational Behavior	3
Total	16

Sixth Semester	**Credits**
MKT 351 Business, Society, and Government (w)	3
IST 305 Information Technology	3
OMS Major Elective	4
BLW 411 Business Law and Ethics (w)	3
Humanities and Arts	3
Total	16

Seventh Semester	**Credits**
Elective (OMS or other)	3
OMS Major Elective	4
OMS Major Elective	4
Humanities and Arts	3
Humanities and Arts	3
Total	17

Eighth Semester	**Credits**
OMS Major Elective	4
OMS Major Elective	4
Elective (OMS or other business)	4
MLR 465 Management Strategy and Policy (w)*	3
Total	15

***** All BBA core courses listed above must be completed prior to taking MLR 465, the capst one course in the BBA curriculum.

(w) Counts as a writing course for university graduation requirements. Three writing courses are required. .

Minor-Field Requirements

Students obtaining a minor in OMS must satisfy the requirements in levels 1 and 2 belo w.

Level 1: Any two of the following three courses:

- **OMS 201 Business Statistics I**
- **OMS 202 Business Statistics II**
- **OMS 311 Introduction to Operations Management**

These three courses can be waived based upon proof of prior equivalent course work. No rmally, these prior courses should not be taken more than five years before the declaration of the OMS minor.

Level 2: At least 10 credit hours from OMS upper-division courses (not including **OMS 311**).

Recommendations

Students obtaining a minor in operations management must take the following courses:

Level 1: OMS 201, **OMS 311**

Level 2: Any three or four of the following: **OMS 312**, **OMS 313**, **OMS 412**, **OMS 413**, **OMS 415**, **OMS 417**, **OMS 419**, **OMS 421**, **OMS 422**, **OMS 425**, **OMS 431**, **OMS 433**, **OMS 435**, **OMS 445**, **OMS 448** .

Students in the business statistics track must take the following courses:

Level 1: OMS 201, **OMS 202**

Level 2: Any three of the following: **OMS 312**, **OMS 431**, **OMS 433**, **OMS 435**, **OMS 445**, **OMS 448**.

Certificate Programs

- **Arts Management**
- **Business Biotechnology**

Bachelor of Science in Computer and Information Science (BSCIS)

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Bachelor of Science in Computer and Information Science (BSCIS) Program

The Bachelor of Science in Computer and Information Science (BSCIS) program is interdisciplinary in structure, offering great flexibility for planning an academic program. It is designed to prepare the student for a professional career which uses the techniques and methodology of computing or for graduate work in the computer and information science areas. The BSCIS program provides the student with a solid foundation in the computer and information science discipline, while the curriculum reflects current computing trends and provides the latest computer technology to enable a CIS graduate to be very competitive in the marketplace.

A student can concentrate in different areas of study. Areas of study include use of computing in all branches of engineering, business, and sciences. Other areas of study can be followed once approved by a student's adviser.

Two tracks are offered under the BSCIS degree:

- The CIS (Computer and Information Science) track is designed for students interested in following applied areas of computer and information science, or who wish to do extra study in a concentration area outside of computer and information science.
- The CSC (Computer Science) track is designed for those students who want a stronger theoretical and quantitative emphasis or who are planning to pursue graduate study.

The CIS Department also offers the Information Systems major for the Bachelor of Business Administration degree.

All programs offered by the Department of Computer and Information Science are available in both the day and the evening. The evening sections of beginning courses are offered each semester. Evening sections of electives are typically offered once a year.

NOTE: Students in the BSCIS program may be allowed to enroll in business courses. However, College of Business Administration accreditation rules require that no more than 25 percent (i.e., 32 semester hours) of the course work counted toward a non-business bachelor's degree, including the BSCIS degree, may be business or upper-level economics courses unless the student also completes all of the Common Body of Knowledge (CBK) courses listed by the College of Business Administration. The 17 CBK courses are: **ACT 221**, **ACT 222**, **BLW 411**, **ECN 201**, **ECN 202**, **ECN 302**, **FIN 351**, **GAD 250**, **IST 203**, **IST 305**, **MKT 301**, **MKT 351**, **MLR 321**, **MLR 465**, **OMS 201**, **OMS 202**, and **OMS 311**.

Computer and Information Science (CIS)

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- CIS Track:
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- **Minors**
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- **CIS Courses**

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Computer and Information Science Track (BS CIS)
At-a-Glance

Admission to major: 2.00 grade-point average, plus a grade of C or better in MTH 181 or an average grade of C+ (2.3) or better in MTH 151-153, plus a grade of C+ or better in CIS 260.

Concentration areas: Many specialization areas are possible through the selection of a concentration area (see below).

Advising: Each student is assigned an adviser by the department after declaring the major; phone: (216) 687-4760.

Student organizations: Association for Computing Machinery (ACM), Northeast Ohio Software Association (NEOSA)

Additional information:
Each student is required to choose a concentration area in any field related to Computer and Information Science and take at least 16 semester hours in this area. Some typical choices are:

- *Business:*
  accounting, finance, marketing, management and labor relations, or operations management and business statistics
- *Engineering:* most commonly electrical engineering
- *Technology:* most commonly electronic technology
- *Mathematics*
- *Natural Science:* biology, chemistry, or physics

A concentration within the CIS Department may be selected with written permission of the student's CIS adviser.

By choosing a concentration area, the student may prepare for a career using computers in that area.

Note:

The CIS track is distinguished from the CSC track by its greater flexibility and higher elective content. The CIS Department also offers an Information Systems major in the B.B.A. degree.

Major-Field Requirements

The following list provides a relatively complete guide to the academic requirements for a program of study in the Computer and Information Science (CIS) track of the Computer and Information Science major. Each student's specific program requires the approval of the department adviser.

1. General Education Requirements. Students should see an adviser in the Business College Office (BU 219) before choosing electives to satisfy General Education Requirements in the following areas: Mathematics or Logic, Arts/Humanities, Nonwestern Culture and Civilization, Western Culture and Civilization, Social Science, Natural Science, Human Diversity and the African-American Experience, and Writing Across the Curriculum.
2. Eighteen semester hours of mathematics chosen from one of two sequences as follows:
   a. (Recommended for all students) **MTH 181-182** (Analytical Geometry and Calculus), **MTH 220** (Introduction to Discrete Mathematics), **MTH 284** (Matrices for Engineers), and **MTH 323** (Statistics with Probability)
   b. (Not available for engineering, science, or quantitative business concentrations) **MTH 151**-**MTH 156** (Mathematical Concepts), **MTH 220** (Introduction to Discrete Mathematics), **OMS 201** and **OMS 202** (Business Statistics)
3. An eight-semester-hour approved sequence in a Natural Science with Laboratory. Recommended sequences are **PHY 243** and **PHY 244** for students with calculus, and **PHY 221** and **222** for others.
4. Twenty-two semester hours of a Computer and Information Science core program: **CIS 260** (Introduction to Programming), **CIS 265** (Data Structures and Algorithms), **CIS 335** (Language Processors), **CIS 340** (C/C++ For Systems Programming), **CIS 345** (Operating System Principles), and **CIS 368** (Object Oriented Design and Programming).
5. A minimum of 16 semester hours of Computer and Information Science electives.
6. Each student must select an area of specialization in any field related to Computer and Information Science. At least 16 semester hours must be in this area, with at least 9 semester hours at the 300 level or higher. The area of specialization must be carefully related to the student's program and approved by the student's adviser. Sample programs of study showing a concentration in the various areas of business, engineering, technology, science, or mathematics are available

from the department. Other programs, including concentrations within the CIS Department, that are tailored to the individual student's needs must be individually approved.

7. At least 46 semester hours must be earned in courses at the 300 level or above.
8. A total of 128 credit hours.

Recommended Program:

[Note: Students should consult with a college adviser before choosing General Education electives. This is particularly important for CIS majors completing the CSC track. In order not to exceed the 128 hours required for graduation, a student in the CSC track must take at least one GenEd course that covers two requirements. For example, ART 252 (Introduction to Early Western Art) applies to both the Arts and Humanities requirement and the Western Culture and Civilization requirement.]

[Note: courses marked with a W satisfy the Writing-Across-the-Curriculum requirement.]

[Note: Students should consult with a CIS Department faculty adviser before choosing concentration or CIS electives.]

Suggested Program of Study for the CIS Major using the CIS track

First Semester	**Credits**
African-American Experience [1]	3
ENG 101 English I	4
MTH 181 Calculus and Analytical Geometry I	4
CIS 260 Introduction to Programming	4
Freshman Orientation	1
Total	16

Second Semester	**Credits**
Arts and Humanities[1]	3
ENG 102 English II	4
MTH 182 Calculus and Analytical Geometry	4
CIS 265 Data Structures and Algorithms	4
Total	14

Third Semester	**Credits**
MTH 220 Discrete Mathematics	4
MTH 284 Matrices for Engineers	2
PHY 243 University Physics I (W)[2]	5
CIS 335 Language Processors	4
CIS 340 C/C++ for Systems Programming	2
Total	17

Fourth Semester	**Credits**
PHY 244 University Physics II (W)	5
CIS 345 Operating Systems Principles	4
CIS 368 O-O Design and Programming	4
Concentration Elective[3]	3
Total	17

Fifth Semester	**Credits**
African-Am. Exp. or Human Diversity [1]	3
Arts and Humanities [1]	3
Western Culture and Civilization[1]	3
CIS Elective[3]	4
Concentration Elective[3]	4
Total	17

Sixth Semester	**Credits**
Social Science Elective [1]	3
MTH 323 Statistics	4
CIS Elective[3]	4
Concentration Elective[3]	3
Concentration Elective[3]	3
Total	17

Seventh Semester	**Credits**

[1] *Students should consult with a college adviser before choosing General Education electives. This is particularly important for CIS majors completing the CSC track. In order not to exceed the 128 hours required for graduation, a student in the CSC track must take at least one GenEd course that covers two requirements. For example, ART 252 (Introduction to Early Western Art) applies to both the Arts and Humanities requirement and the Western Culture and Civilization requirement.*

[2] *Courses marked with a W satisfy the Writing-Across-the-Curriculum requirement.*

[3] *Students should consult with a CIS faculty adviser before choosing concentration or CIS electives.*

Additional Major-Field Requirements

1. In order to declare CIS as the major, the student must have completed one semester of calculus (**MTH 181**) with a grade of C (2.00) or better, or one semester of math concepts (**MTH 151**-**153**) with a grade of C+ (2.30) or better; and **CIS 260** (Introduction to Programming) with a grade of C+ (2.30) or better. The student must also have an overall grade-point average of 2.00 or better.
2. All Computer and Information Science courses must be passed with a grade of "C" or better.
3. Any Computer and Information Science course taken without prior satisfactory completion of all catalog prerequisite courses will not be counted toward fulfillment of graduation requirements.

Students who intend to major in CIS should see an adviser in the CIS Department as soon as possible (no later than the end of the freshman year), even if they have not yet completed **MTH 181** and **CIS 260**.

Computer and Information Science

On this page:

- **Back to BS CIS**
- CSC Track
    - **At-a-Glance**
    - **Major-Field Requirements**
      Recommended Program
- **CIS Track**
- **Minors**
- **Second Major**
- **CIS Courses**
- **Go to Computer & Information Science Department Web Site**

Computer Science Track (BS CIS)
At-a-Glance

Admission to major:
2.00 grade-point average, a grade of C (2.00) or better in MTH 181, and a grade of C+ (2.30) or better in CIS 260.

Concentration areas: Many specialization areas are possible through the selection of a concentration area (see below).

Advising: Each student is assigned an adviser by the department after declaring the major; phone: (216) 687-4760.

Student organizations: Association for Computing Machinery (ACM), Northeast Ohio Software Association (NEOSA).

Additional information:
Each student is required to choose a concentration area in any field related to Computer and Information Science and take at least 16 credits in this area. Some typical choices are:

- *Business:*
  accounting, finance, marketing, management and labor relations, or operations management and business statistics
- *Engineering:* most commonly electrical engineering
- *Technology:* most commonly electronic technology
- *Mathematics*
- *Natural Science:* biology, chemistry, or physics

A concentration within the CIS Department may be selected with written permission of the student's CIS adviser.

By choosing a concentration area, the student may prepare for a career using computers in that area.

Note:
This track is distinguished from the CIS track by its higher requirements in computer science, mathematics, and natural science. This track is recommended for those students who want a stronger technical program or who plan to go to graduate school. The CIS Department also offers an Information Systems major in the B.B.A. degree.

Major-Field Requirements

The following list provides a relatively complete guide to the academic requirements for a program of study in the Computer Science (CSC) track of the CIS major. Each student's specific program requires the approval of the department adviser.

1. General Education Requirements. Students should see an adviser in the Business College Office (BU 219) before choosing electives to satisfy General Education Requirements in the following areas: Mathematics or Logic, Arts/Humanities, Nonwestern Culture and Civilization, Western Culture and Civilization, Social Science, Natural Science, Human Diversity and the African-American Experience, and Writing Across the Curriculum.
2. Twenty-two semester hours of mathematics: **MTH 181** - **182** (Analytical Geometry and Calculus); **MTH 220** (Introduction to Discrete Mathematics); **MTH 284** (Matrices for Engineers) or **MTH 288** (Linear Algebra); **MTH 311** (Numerical Analysis); and **MTH 323** (Statistics with Probability)
3. A 16-semester-hour science/quantitative sequence: **PHY 243** and **PHY 244**, and the remainder in any science or quantitative courses at the 200 level or above
4. A 29-semester-hour computer science core sequence: **CIS 260** (Introduction to Programming), **CIS 265** (Data Structures and Algorithms), **CIS 335** (Language Processors), **CIS 340** (C/C++ For Systems Programming), **CIS 345** (Operating System Principles), **CIS 368** (Object Oriented Design and Programming), **CIS 408** (Internet Programming), **CIS 490** (Foundations of Computing)
5. A minimum of 16 semester hours of Computer and Information Science electives
6. Each student must select an area of specialization in any field related to Computer and Information Science. At least 16 semester hours must be in this area, with at least 9 semester hours at the 300 level or higher. The area of specialization must be carefully related to the student's program and approved by the student's adviser. Sample programs of study showing a concentration in the various areas of business, engineering, technology, science, or mathematics are available from the department. Other programs, including concentrations within the CIS Department, that are tailored to the individual student's needs must be individually approved.

7. At least 46 semester hours must be earned in courses at the 300 level or above.
8. A total of 128 semester hours

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Recommended Program:

Suggested Program of Study for the CSC Track

First Semester	Credits
African-American Experience or Human Diversity, and Social Science [1]	3
ENG 101 English I	4
MTH 181 Calculus and Analytical Geometry I	4
CIS 260 Introduction to Programming	4
Freshman Orientation	1
Total	16

Second Semester	Credits
Arts and Humanities, and Writing[1]	3
ENG 102 English II	4
MTH 182 Calculus and Analytical Geometry	4
CIS 265 Data Structures and Algorithms	4
Total	14

Third Semester	Credits
MTH 220 Discrete Mathematics	4
MTH 284 Matrices for Engineers	2
PHY 243 University Physics I (W)[2]	5
CIS 335 Language Processors	4
CIS 340 C/C++ for Systems Programming	2
Total	17

Fourth Semester	Credits
PHY 244 University Physics II (W)[2]	5
CIS 345 Operating Systems Principles	4
CIS 368 O-O Design and Programming	4
Concentration Elective[3]	4
Total	17

Fifth Semester	Credits
African-Am. Exp. or Human Diversity [1]	3
Arts and Humanities [1]	3
MTH 311 Numerical Methods	4
CIS 408 Internet Programming	4
CIS 490 Foundations of Computing	3
Total	17

Sixth Semester	Credits
MTH 323 Statistics	4
CIS Elective[3]	4
CIS Elective[3]	4
Concentration Elective[3]	3
Total	15

Seventh Semester	Credits
Nonwestern Culture, and Social Science[1]	3

[1] *Students should consult with a college adviser before choosing General Education electives. This is particularly important for CIS majors completing the CSC track. In order not to exceed the 128 hours required for graduation, a student in the CSC track must take at least one GenEd course that covers two requirements. For example, ART 252 (Introduction to Early Western Art) applies to both the Arts and Humanities requirement and the Western Culture and Civilization requirement.*

[2] *Courses marked with a W satisfy the Writing-Across-the-Curriculum requirement.*

[3] *Students should consult with a CIS faculty adviser before choosing concentration or CIS electives.*

Additional Major-Field Requirements

1. In order to declare the CIS major with a CSC track, the student must have completed the first course in calculus (**MTH 181**) with a grade of C (2.00) or better, and **CIS 260** (Introduction to Programming) with a grade of C+ (2.30) or better. The student must also have an overall grade point average of 2.00 or better.
2. All Computer and Information Science courses must be passed with a grade of "C" or better.
3. Any Computer and Information Science course taken without prior satisfactory completion of all catalog prerequisite courses will not be counted toward fulfillment of graduation requirements.

Minors Offered by Computer and Information Science

On this page:

- **Back**
- **Minor in Computer and Information Science**
- **Minor in Information Systems**
- **Go to Computer & Information Science Department Web Site**

Minor in Computer and Information Science

Students minoring in Computer and Information Science are required to take a minimum of 16 credits in the Computer and Information Science Department. Eight credits of these are the required courses:

- **CIS 260 Introduction to Computer Programming**
- **CIS 265 Data Structures and Algorithms**

The remainder must be drawn from CIS courses at or above the 300 level, with the approval of a CIS faculty adviser.

Minor in Information Systems

Students minoring in Information Systems are required to take a minimum of 16 credits in the Computer and Information Science Department. Six credits of these are the required courses:

- **IST 203 Software Tools for Personal Productivity**
- **IST 211 Fundamentals of System Development**

The remainder can be selected from IST courses. CIS courses may *not* be used as electives for the Information Systems minor.

Bachelor of Science in Computer and Information Science Program

From this page:

- **Back to BS CIS**
- **Second Major**
- **CIS Track**
- **CSC Track**
- **Go to Computer & Information Science Department Web Site**

Second Major

Students in either the CIS or CSC program who choose a concentration in mathematics can, by suitably choosing a few additional electives, complete all mathematics requirements for the bachelor's degree with a **major in Mathematics**. See your CIS Department adviser and an adviser in the **Mathematics Department** for further information.

Students in either the CIS or CSC program who choose a concentration in physics can, by suitably choosing electives, complete all physics requirements for the Bachelor of Arts degree with a **major in Physics**. Students can receive this additional degree by taking **MTH 281** in addition to CIS/CSC requirements. CIS majors will need to take additional physics courses beyond the minimum concentration requirements. See your CIS Department adviser and an adviser in the **Physics Department** for further information.

Nance College of Business Administration

Certificate Programs

The Nance College of Business Administration offers a certificate program in Global Business. The college also offers three certificate programs in collaboration with other colleges in the university: Arts Management, Multimedia Advertising, and Business Biotechnology. Certificate programs allow students and employees in area businesses to gain knowledge and proficiency in a specialized field by taking specified courses in selected disciplines.

The certificate programs sponsored or co-sponsored by the College of Business Administration are described below.

- **Certificate in Global Business**
- **Certificate in Arts Management**
- **Certificate in Multimedia Advertising**
- **Certificate in Business Biotechnology**

Students interested in international business careers are encouraged to explore the International Business major within the B.B.A. degree (**www.csuohio.edu/cba/academic/undergraduate/majors/ib.html**). Three certificate programs in international studies are offered by the College of Liberal Arts and Social Sciences. For catalog information on these programs, see the section on **International Studies Certificates**.

Nance College of Business Administration: Certificate Programs

On this page:

- **Back to College of Business Administration Certificates**
- **Description**
- **Requirements**
- **Go to Art Department**
- **Go to Creative Writing**
- **Go to Dance Company**
- **Go to Marketing Department**
- **Go to Music Department**
- **Go to Theater Arts Program**

Arts Management (Certificate)

The Certificate in Arts Management bridges the gap between fine arts leadership and business leadership. Basic business skills are provided to supplement fine arts knowledge. This program benefits fine and performing arts majors who are interested in learning about the business aspects of their fields. Admission and advising are provided jointly by the College of Business Administration and the creative or performing arts departments of the College of Liberal Arts and Social Sciences.

Requirements:

Sixteen (16) semester hours of courses in business and fine arts are required to obtain the certificate. The program of study is as follows:

1. Prerequisites:

- **ACT 221 Introductory Accounting I**
- **IST 203 Software Tools for Personal Productivity**

Arts Experience —A **minimum** of 15 semester hours of course work or equivalent practical experience in one of the creative/performing arts

2. Required core courses (6 semester hours):

- **MKT 301 Introduction to Marketing**
- **MLR 301 Principles of Management**

3. Electives (10 semester hours):
Ten hours chosen from any of the following electives, with at least one course chosen from each of the elective areas (Business and Art). The final choice of electives must be approved by an adviser.

Business Electives:

- **FIN 351 Introduction to Financial Management**
- **GAD 250 Business Communication ***
- **MKT 441 Advertising and Promotion Management**
- **MLR 340 Human Resource Management**
- **MLR 443 Entrepreneurship**
- **OMS 311 Introduction to Production Management**

*GAD courses are administered by the Department of Marketing.

Art Electives:

- **ART 405 Museology: Introduction to Museum Studies - Exhibition Planning and Design**
- **COM 225 Media Writing**
- **COM 357 Principles of Public Relations**
- **DRA 381 Theatre Organization and Management**
- **DRA 490 Professional Theater Internship**
- **ENG 301 Advanced Expository Writing**
- **ENG 390 Literary Magazine**
- **UST 410 Proposal Writing and Program Development**

Other elective courses as approved by the various departments.

Note: Several of the courses listed above have prerequisites which must be satisfied in order to take the courses.
For information on specific courses, contact the appropriate department: **Art** (216) 687-2040, **Creative Writing** (216) 687-4522,

Dance Company (216) 687-4883, **Marketing** (216) 687-4771, **Music** (216) 687-2301, **Theater Arts** (216) 875-9662.

Interested students should obtain a form called the "Arts Management Checklist," available from the Department of Marketing, to track their progress in the program.

Nance College of Business Administration: Certificate Programs

On this page:

- **Back to College of Business Administration Certificates**
- **Description**
- **Required Courses**
- **Go to Art Department**
- **Go to School of Communication**
- **Go to Marketing Department**

Multimedia Advertising (Certificate)

This interdisciplinary program is offered jointly by the Department of Marketing in the Nance College of Business Administration and the Department of Art and the School of Communication in the College of Liberal Arts and Social Sciences. The program provides students with a breadth of information and practical know-how in marketing strategy, advertising communication, graphics, copywriting, and design. It introduces contemporary advertising theories and practices by integrating traditional media, such as print and broadcasting, with new media, such as computer graphics and the Internet.

Required Courses:

The certificate program includes 16 semester hours of core courses in visual art, advertising principles, advertising applications, and marketing analysis. A 2.25 GPA must be maintained across all required courses. The following courses are prerequisites to those required for the certificate.

Prerequisites:

- **ART 102 Introduction to 2-D Art and Design**
- **ART 242 Introduction to Typographic Principles and Design**
- **MKT 301 Introduction to Marketing**

  NOTE: **COM 350 Persuasive Communication and Attitude Change** is recommended as a foundation for the COM courses in this certificate program.

Required Core Courses:

- **ART 244 Introduction to Macintosh**
- **COM 360 Principles of Advertising** OR
  MKT 441 Advertising and Promotion
- **COM 450 Media Programming and Research** OR
  COM 455 Communication Campaigns OR
  COM 460 Advertising Copywriting and Layout Design
- **MKT 420 Buyer Behavior** OR
  MKT 431 Marketing Research

Recommended Electives:

- **ART 344 Advanced Raster-Image Development**
- **ART 345 Advanced Vector-Image Development**
- **ART 444 Advanced Typography and Design**
- **ART 445 Introduction to Digital Media**
- **COM 204 Single-Source Video/Audio Production and Editing**
- **COM 352 Multi-Source Video Production**
- **COM 357 Principles of Public Relations**
- **COM 358 Media Law, Economics, and Ethics**
- **COM 370 Communication Technology and Social Change**
- **MKT 450 Personal Selling and Sales Management**
- **MKT 454 Internet Marketing**

For more information, please contact the appropriate department: **Art Department** (216) 687-2040, **School of Communication** (216) 687-4630, or **Department of Marketing** (216) 687-4771.

Nance College of Business Administration: Certificate Programs

On this page:

- Back to College of Business Administration Certificates
- Description
- Admission Criteria
- Required Courses
- Go to Marketing Department

Global Business (Certificate)

The Undergraduate Certificate in Global Business is designed to prepare business professionals to conduct business in a complex and fast-changing global environment. The Certificate program enables undergraduate business students and those already holding an undergraduate business degree to manage complex problems in international trade and management.

This program is administered through the Marketing Department.

Admission Criteria:

Admission to the Global Business Certificate program is open to the following:

- Current undergraduate students in good academic standing.
- Individuals with a Bachelor's degree.

Submission of official transcripts will be required to determine if any prerequisite courses are needed.

Required Courses:

Students who are admitted to the certificate program should have completed INB 301 Introduction to International Business
or an equivalent course in International Business. The certificate program consists of four courses (three required and one elective) for a minimum of 14 credit hours. A minimum of B- grade is required to complete the certificate program.

Curriculum and Credits:

- MKT 461 Global Marketing (4)
- MLR 487 International Management (3)
- FIN 365 International Finance (4)
- One elective course—select from the following list:

- IST 461 E-Business (3)
- ACT 460 International Accounting (3)
- OMS 425/525 International Operations Management (4)
- INB 490 International Business Internship (3)
- INB 491 International Study Tour (3)
- INB 492 International Study Abroad (3)
- INB 493 Special topics (e.g., Export/Import Documentation/Procedures)
- MKT 440 Marketing Field Experience Abroad (3)

Many of these courses have pre-requisites, for which the permission of the program director is required.

For further information, contact the Marketing Department, (216) 687-4771.

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Nance College of Business Administration: Certificate Programs

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- **Description**
- **Required Courses**
- **Go to OMBS Department Web Site**
- **Go to Career Services' information on Biotechnology Certificate**
- **Go to Department of Biological, Geological, and Environmental Sciences**

Business Biotechnology (Certificate)

The biotechnology industry has been identified as one of the fastest growing industries in northeastern Ohio. This industry growth demands a trained workforce with a unique skills set.

The specific skills identified as being required by these employers include basic engineering, quality control, laboratory, biochemistry and computer skills.

The certificate program targets students who are working towards or already have a bachelor's degree and want to add coursework that will enable them to focus on the biotechnology field.

The certificate also targets current employees who are retooling to be more competitive, or want to add credentials to their career portfolio.

Required Courses:

The certificate program requires 19-20 semester hours:

- **ESC 120 Introduction to Engineering Design**
- **OMS 445 Quality Control and Management** (prerequisite: **OMS 201 Business Statistics I**)
- **MKT 450 Professional Selling and Sales Management**
- **OMS 413 Production Planning and Control** *or* **OMS 412 Supply Chain Management** (both have a prerequisite of **OMS 311 Introduction to Operations Management**, which has a prerequisite of **OMS 201 Business Statistics I**, which has a prerequisite of **MTH 156 Mathematical Concepts 2C**)
- **IME 465 Manufacturing Systems Engineering**
- **BIO 308/309 Cell Biology and Laboratory** (prerequisite: **BIO 306 Biochemistry and Molecular Biology**)

College of Education & Human Services

On this page:

- **Introduction**
- **Bachelor of Science in Education Degree and Teaching Licensure**
- **General Requirements**
    - **Admission Requirements**
    - **Acceptance into Teaching Licensure or Allied Sports Professions**
- **Title II Report Card**
    - **Praxis II Pass-Rate Data: Initial Teacher Preparation Program**
- **Bachelor of Science in Education Program**
    - **Early Childhood Education** (Early Childhood Licensure)
    - **Middle Childhood Education** (Middle Childhood Licensure)
    - **Physical Education** (Multi-Age Physical Education Licensure)
    - **Special Education** (Mild/Moderate and Moderate/Intensive Needs Licensure)
    - **Allied Sports Professions**
- **Multi-Age Licensure**
    - **Physical Education Licensure**
    - **Health Education Licensure**
    - **Foreign Language Education Licensure (French or Spanish)**
    - **Music Education Licensure**
    - **Visual Arts Education Licensure**
- **Adolescent and Young Adult Licensure**
- **Upper Division Honors Program - Teaching Licensure**
- **Licensure Programs for Post- Baccalaureates**
    - **Early Childhood Licensure**
    - **Middle Childhood Licensure**
    - **Adolescent/Young Adult or Multi-Age Licensure**
- **Endorsement Programs for Licensed Teachers**
- **Bachelor of Science in Nursing**
- **Certificates**
    - **TESOL**
- **Minors**
    - **Dance**
    - **Health Education**
    - **Sport Management**
- **Go to College of Education and Human Services Web Site**

Introduction

The College of Education and Human Services offers a variety of baccalaureate programs for men and women who desire to serve as teachers, nurses, health educators, sport managers, or exercise/fitness specialists. The college also offers graduate programs for the advancement and enrichment of persons active in education and nursing professions.

Web site: **www.csuohio.edu/coehs**

Bachelor of Science in Education Degree and Teaching Licensure

The faculty of the College of Education and Human Services confers the Bachelor of Science in Education degree with majors in Early Childhood Education, Middle Childhood Education, Physical Education, Special Education, and Allied Sports Professions (Exercise/Fitness Specialist or Sport Manager). In addition, undergraduate students and post-baccalaureates may earn State of Ohio Teaching Licenses in early childhood (grades Prek-3), middle childhood (grades 4-9), physical education (grades Prek-12), special education (grades K-12 in mild/moderate or moderate/intensive educational needs), adolescent/young adult (grades 7-12 in a variety of content areas), visual arts (grades Prek-12), music (grades Prek-12), and foreign language (grades Prek-12 in French or Spanish).

The college's conceptual model for teacher education is "The Teacher as a Responsive, Reflective Professional: A Partner in Learning." Graduates of Cleveland State University's teacher education programs are known for distinctive abilities that reflect the four knowledge bases that serve as a foundation for this model: professionalism, partnership, inquiry, and contextualism.

At-a-Glance

Degree granted: Bachelor of Science in Education

Endorsements: Teacher licensure

Minimum hours for degree: 125 semester hours

Minimum hours for minor:
32 semester hours (applies only to those undergraduate students seeking adolescent/young adult licensure)

Admission to professional education course work: 2.50 cumulative grade-point average; grade of C or better on college-level English composition course; grade of C or better on college-level math course; Intake Interview.

Financial assistance:
Incentive grants; Teacher Scholarship program (details are available in the College Advising Office, Rhodes Tower 1401.)

Awards:
Golden Apple for Academic Excellence, Award for Exceptional Achievement, and Outstanding Performance for Student Teaching. The Department of Health, Physical Education, Recreation and Dance confers Major of the Year, Academic Achievement, and the Jane Pease Service Awards.

Central advising office: College Advising Office, Rhodes Tower, Room 1401; (216) 687-4625

General Requirements

- **Admission to the College**
- **Acceptance into Teaching Licensure or Allied Sports Professions**

Admission to the College

Undergraduate students planning to major in Early Childhood Education, Middle Childhood Education, Physical Education, Special Education, Exercise/Fitness Specialist, and Sport Manager must be admitted to the College of Education and Human Services. A student should apply for admission to the college at least one semester in advance of the start of course work in the major. A cumulative grade-point average of at least 2.50 is required for admission.

Undergraduate students seeking a teaching license in Adolescent/Young Adult, Visual Arts, Music, French, or Spanish should seek admission to the College of Science or the College of Liberal Arts and Social Sciences. These students, except for those in music, will complete a minor in education.

College graduates seeking a teaching license as a post-baccalaureate student must gain admission to the university through the Undergraduate Admissions Office and then to the College of Education and Human Services through the College Advising Office, Rhodes Tower Room 1401. These individuals must also have a cumulative grade-point average of at least 2.50 and meet requirements listed below for acceptance into a teacher license program.

Acceptance into Teaching Licensure or Allied Sports Professions

- **Undergraduate Students**
- **Professional Standards**
- **Course Load**
- **Student Teaching**
- **Portfolio**
- **PRAXIS II**
- **Teaching Licensure Application**
- **Entry-Year Program**
- **Student Responsibility**

Undergraduate or post-baccalaureate students must meet certain requirements to be accepted into a licensure or allied sports professions program and be eligible for professional course work at the 300 level and above. These requirements are as follows:

Undergraduate Students

Students planning to major in Early Childhood Education, Middle Childhood Education, Special Education (Mild/Moderate or Moderate/intensive), or Physical Education must be admitted to the College of Education and Human Services. A student should apply for admission to the College of Education and Human Services at least one semester in advance of desired entrance. In addition, students are required to meet certain standards and requirements of the college to be fully accepted into a licensure program and prior to registering for professional course work in education beyond **EDB 200** (Teaching as a Profession). These standards and requirements are as follows:

1. The student must have an overall grade-point average of 2.50 or better at the time of enrollment in professional education courses with the exception of **EDB 200**. All course work taken at other institutions is counted in calculating this grade-point average until the student has completed 12 or more credit hours at Cleveland State University, after which only the Cleveland State grade-point average is considered.
2. The student must have completed or be in the process of completing 30 semester hours of college-level course work.
3. The student must demonstrate proficiency in writing by earning a grade of C or higher in a college-level English composition course.
4. The student must demonstrate proficiency in mathematics by earning a grade of C or higher in a college-level mathematics course.
5. The student must satisfactorily complete an intake interview with an adviser in the College of Education and Human Services Advising Office, Rhodes Tower Room 1401, or, in the case of Physical Education, or Allied Sports Professions, with the coordinator of Undergraduate Student Services in the Physical Education Building Room 228. (Requirements 1-4 above must be met prior to the intake interview.)
6. The student must sign a Verification of Good Moral Character Form in the presence of the intake interview adviser (not required for Allied Sports Professionals).

Professional Standards

All students enrolled in degree and/or licensure programs in the College of Education and Human Services must meet the following standards:

1. All students must achieve a cumulative Cleveland State University grade-point average of at least 2.50
2. All students must maintain a grade-point average of at least 2.75 for professional course work in education. No grades of D will be accepted. No grade lower than B will be accepted in the practicum experience. Professional course work may be repeated with the approval of the College Advising Office.
3. All students seeking licensure in Physical Education, Music, Visual Arts, Foreign Language, Middle Childhood, or Adolescent/Young Adult areas must achieve a grade-point average of at least 2.50 in their major course work.
4. Students are urged to participate extensively in school and community service as part of their professional preparation. Each student will have opportunities for field experience within the context of a number of professional courses required by the college. However, students also are encouraged to participate in voluntary group leadership activities in community agencies. Assistance in locating such opportunities is provided by the college.

Course Load

The normal course load is 16 hours. Students may carry a maximum of 19 hours per semester, but they are advised to do so only rarely, when there is clear academic justification. Students who wish to take an overload (20 hours) must obtain an overload form approved by adviser.

Student Teaching Internship

The student teaching internship, required of all students being recommended for licensure by Cleveland State University, is open to those students who meet the requirements specified by the College of Education and Human Services. In addition to those professional standards and the grade-point average requirements listed above, the following must be completed prior to approval to student teach:

1. Starting in Summer 2006, a student must provide evidence of having taken all required Praxis II examinations prior to the start of the student teaching experience. In addition a student in French or Spanish must also demonstrate oral proficiency at the ACTFL "Advanced-Low" level.
2. Through work presented in a Professional Portfolio, a student must demonstrate competence levels of at least Emerging on all 12 program outcomes and Proficient in at least 8 of these, including #2 - Social Foundations, #3 - Knowledge of Subject Matter and Inquiry, #4 - Knowledge of Development and Learning, #8 - Instructional Strategies, and #10 - Technology.
3. A student must submit a negative TB (tuberculosis) test report (Mantoux version).
4. A student in Early Childhood, Physical Education, Mild/Moderate, or Moderate/Intensive must submit verification of having completed a series of three Hepatitis B shots.
5. A student must complete a civilian background check (fingerprint check) and submit a copy of a Clearance Report from the Bureau of Criminal Identification and Investigation (BCI).
6. An undergraduate student must be enrolled in the appropriate college and must have declared the appropriate major or minor (students in Adolescent/Young Adult programs, Music, Visual Arts, and Foreign-Language Education should be enrolled in the College of Science or the College of Liberal Arts and Social Sciences and, except for Music, should declare minors in Education. Post-baccalaureate students should be enrolled in the College of Education and Human Services).
7. Application for the student teaching internship must be filed by September 15 (for spring placement) or February 15 (for fall placement).
8. At least two semesters of academic work must be completed in the College of Education and Human Services before a student is eligible for the student teaching internship.
9. A student must have completed a minimum of 100 credit hours prior to the student teaching internship. All required professional education courses must be completed.

Additional information about all standards and requirements is available in the College Advising Office, Rhodes Tower Room 1401.

Note:
Students in those programs requiring a practicum experience must complete requirements 3 through 6 above before the start of the practicum experience in addition to all specified prerequisite course work. Application for practicum must be filed by September 15 (for spring placement) or February 15 (for fall placement).

Note:
A student may not repeat the student teaching internship without approval of the Petitions Committee of the College. For information about this procedure, visit the College Advising Office, Rhodes Tower, Room 1401.

Portfolio

All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the following12 outcomes or standards:

1. **Personal Philosophy.**
   The Cleveland State teacher education student articulates a personal philosophy of teaching and learning that is grounded in theory and practice.
2. **Social Foundations.**
   The Cleveland State teacher education student possesses knowledge and understanding of the social, political, and economic factors that influence education and shape the worlds in which we live.
3. **Knowledge of Subject Matter and Inquiry.**
   The Cleveland State teacher education student understands content, disciplinary concepts, and tools of inquiry related to the development of an educated person.
4. **Knowledge of Development and Learning.**
   The Cleveland State teacher education student understands how individuals learn and develop and that students enter the learning setting with prior experiences that give meaning to the construction of new knowledge.

5. **Diversity.**
   The Cleveland State teacher education student understands how individuals differ in their backgrounds and approaches to learning and incorporates and accounts for such diversity in teaching and learning.
6. **Learning Environment.**
   The Cleveland State teacher education student uses an understanding of individual and group motivation to promote positive social interaction, active engagement in learning, and self-motivation.
7. **Communication.**
   The Cleveland State teacher education student uses knowledge of effective verbal, nonverbal, and media communication techniques to foster inquiry, collaboration, and engagement in learning environments.
8. **Instructional Strategies.**
   The Cleveland State teacher education student plans and implements a variety of developmentally appropriate instructional strategies to develop performance skills, critical thinking, and problem solving, as well as to foster social, emotional, creative, and physical development.
9. **Assessment.**
   The Cleveland State teacher education student understands, selects, and uses a range of assessment strategies to foster physical, cognitive, social, and emotional development of learners and gives accounts of students' learning to the outside world.
10. **Technology.**
    The Cleveland State teacher education student understands and uses up-to-date technology to enhance the learning environment across the full range of learner needs.
11. **Professional Development.**
    The Cleveland State teacher education student is a reflective practitioner who evaluates his/her interactions with others (e.g., learners, parents/guardians, colleagues and professionals in the community) and seeks opportunities to grow professionally.
12. **Collaboration and Professionalism.**
    The Cleveland State teacher education student fosters relationships with colleagues, parents/guardians, community agencies, and colleges/universities to support students' growth and well-being.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

PRAXIS II

All students are required to pass PRAXIS II examinations in two areas: Principles of Learning and Teaching (EC, K-6, or 5-9, or 7-12) and Specialty Area Tests. Minimum scores are set by the Ohio Department of Education. Approval for endorsement for teaching licensure cannot be given if the student fails to meet the cut-off score in any of these areas. That component of the test not successfully met may be repeated until a passing grade is achieved. Pertinent information is available in the Office of Testing Services, UC 253B, in the College Advising Office, or on the Web at **www.ets.org/praxis**.

Teaching Licensure Application

Students apply for licensure through the College of Education and Human Services Advising Office. Application forms are distributed and explained during orientation to student teaching. Additional forms are available in Rhodes Tower, Room 1401.

Entry Year Program

Students completing all requirements for initial teaching license receive a State of Ohio Provisional Teaching License good for two years. These individuals will be granted a full five-year Professional Teaching License upon successful completion of an Entry-Year Program as a professional teacher. The Entry Year includes a formal program of support and mentoring designed to foster professional growth. Success in the Entry Year also requires teachers to pass the Praxis III assessment administered by Praxis III assessors specially trained by the State of Ohio. Complete information on this process is available in the College Advising Office, Rhodes Tower Room 1401.

Student Responsibility

Each student is responsible for meeting the curricular requirements and following the academic regulations of the college and university. No university official can relieve the student of that responsibility. Petitions for exceptions to regulations or requirements may be approved only by an appropriate faculty committee. Petition forms may be obtained from the College Advising Office, Rhodes Tower, Room 1401, (216) 687-4625.

Title II Report Card

All institutions of higher education which prepare teachers must make a public report each year of important aspects of their programs, including the PRAXIS II examination passage rates for the students who complete teacher preparation programs at their institutions. The following table summarizes these passage rates for the most current reporting year. A follow-up pass rate report is also included for the cohort completing their program three years earlier. A copy of the full public report for Cleveland State University can be found on the College of Education and Human Services Web site (**www.csuohio.edu/coehs/**).

2004-2005 Praxis II Pass-Rate Data: Initial Teacher Preparation Programs

Testing Period: 9/04 - 8/05 — Number of Program Completers: 428

Type of Assessment	# Taking Praxis II at CSU	# Passing Praxis II at CSU	CSU Pass Rate[1]	OH Passing Score[2]	OH Pass Rate # Took	OH Pass Rate # Pass	OH Pass Rate % Pass	National Pass Rate at Ohio's Scores[3]
Professional Knowledge								
Principles of Lrng & Teaching Early Child	13	13	100%	166	1237	1226	99%	93%
Principles of Lrng & Teaching K-6	42	42	100%	168	488	451	92%	69%
Principles of Lrng & Teaching 5-9	81	73	90%	168	1429	1310	92%	60%
Principles of Lrng & Teaching 7-12	171	170	99%	165	2844	2745	97%	79%
Content Areas and Teaching Special Populations								

Art - Content Knowledge	12	12	100%	157	303	296	98%	85%
Biology - Content Knowledge Part 1	11	10	91%	158	84	79	94%	72%
Biology - Content Knowledge Part 2	11	9	82%	144	83	77	93%	61%
Biology Content Knowledge	4	--	--	148	98	96	98%	75%
Chemistry – Content Knowledge Test241	3	--	--	153	13	13	100%	49%
Chemistry – Content Knowledge Test245	2	--	--	152	28	25	89%	70%
Chemistry, Physics and Gen. Science	4	--	--	520	19	18	95%	74%
Early Childhood Education	111	110	99%	570	1760	1750	99%	85%
Education of Young Children	13	12	92%	166	1104	1097	99%	93%
Earth Science - Content Knowledge	1	--	--	151	44	41	93%	75%
English Lang., Lit. and Comp.	25	22	88%	167	463	428	92%	70%
French - Content Knowledge	1	--	--	160	29	27	93%	80%
Mathematics – Content Knowledge	17	17	100%	139	329	316	96%	56%
Middle School English Language Arts	41	39	95%	156	696	672	97%	84%
Middle School Mathematics	49	48	98%	143	632	630	100%	84%
Middle School Social Studies	36	33	92%	151	702	653	93%	75%
Middle School Science	10	10	100%	144	324	300	93%	78%
Music - Content Knowledge	14	14	100%	154	304	294	97%	82%
Physical Educ. – Content Knowledge	11	10	91%	153	267	247	93%	63%
Physics - Content Knowledge	1	--	--	132	10	9	90%	79%
Social Studies – Content Knowledge	27	24	89%	157	634	589	93%	71%
Spanish - Content Knowledge	7	--	--	160	113	107	95%	78%
Special Educ. – Knowledge-based core	93	92	99%	151	759	722	95%	79%
Summary Total and Pass Rate[4]	428	406	95%		7779	7357	95%	

[1]No pass rate percentage is calculated when fewer than 10 teacher candidates take the Praxis II test.

[2]Ohio Passing Scores that are over 200 are for older versions of the Praxis II test in that area.

[3]The national passing rate is calculated at *Ohio's cut scores*, which are among the highest in the nation. For instance, Ohio requires the highest cut score in Principles of Learning and Teaching 5-9 (Middle Childhood) and ranks second in Principles of Learning and Teaching in K-6 and 7-12.

[4]The Summary Total is the total number of different individuals who took one or more tests listed. The Summary Pass Rate is the percentage of this total that passed ALL of the tests taken.

Praxis III: Academic Year 2005-06

Areas Assessed	# CSU Grads Assessed	# CSU Grads Passed	CSU Pass Rate	OH Passing Score	CSU Avg. Score
Domain A – Organizing Content for Student Learning	225	225	100%	10	13.83
Domain B – Creating and Environment for Student Learning	225	224	99.6%	10	13.72
Domain C – Teaching for Student Learning	225	224	99.6%	10	13.48
Domain D – Teacher Professionalism	225	225	100%	8	11.30
Record of Evidence Score	225	224	99.6%	38	52.33

Bachelor of Science in Education (BS in Ed.)

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    - **Middle Childhood Education** (Middle Childhood Licensure)
    - **Physical Education** (Multi-Age Physical Education Licensure)
    - **Special Education** (Mild/Moderate and Moderate/Intensive Needs Licensure)
    - **Allied Sports Professions**
- Licensure Programs
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    - **Middle Childhood**
    - **Multi-Age Programs**
      (Physical Education, Health Education, Foreign Language Education (French or Spanish), Music Education, Visual Arts Education)
    - **Special Education** (Mild/Moderate and Moderate/Intensive Needs Licensure)
    - **Adolescent and Young Adult Licensure**
    - **Upper Division Honors Program - Teaching Licensure**
    - (College Graduates: **see Post-Baccalaureate Teacher Education Programs**)
    - (Practicing Teachers: **see Endorsement Programs**)
- **Go to College of Education & Human Services website**

Introduction

The Bachelor of Science in Education degree is conferred upon students who complete college requirements in the following major fields: Early Childhood Education, Middle Childhood Education, Physical Education, Special Education (Mild /Moderate or Moderate/Severe educational needs), or Allied Sports Professions (Exercise Fitness Specialist or Sport Manager).

Degree and Licensure Requirements

In addition to meeting the university requirements for the baccalaureate degree (see the section on Common Requirements in the chapter on University Regulations), candidates for the degree of Bachelor of Science in Education and teacher licensure must meet the following requirements of the college:

1. Maintenance of at least a 2.50 cumulative grade-point average.
2. Maintenance of at least a 2.75 grade-point average in professional course work .
3. At least a 2.50 grade-point average in major coursework. (Applies to those in Adolescent/Young Adult Teaching Areas, Middle Childhood, Physical Education, Visual Arts, Music, and Allied Sports Professions.)
4. Successful completion of student teaching and passing of required Praxis II examinations. (Applies to those in teacher licensure.)
5. Completion of between 125 and 137 semester hours of course work .
6. Achievement of at least the Proficient level on all 12 initial teaching license outcomes as demonstrated through artifacts presented in a Professional Portfolio. (This requirement is in effect for all students starting in Fall 2004.)

General Education Requirements

(45 to 90 hours)

The General Education Requirements for all B.S. Ed. programs meet those established by the Cleveland State University Curriculum Committee and approved by University Faculty Senate. General Education Requirements for these programs are found with the program descriptions and requirements which follow this section. All students should consult program checklists in the College of Education and Human Services Advising Office (Rhodes Tower 1401) for up-to-date General Education Requirements. Students entering the university as first-year students must enroll in the Introduction to University Life course.

Early Childhood Education

On this page:

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- **Go to Department of Teacher Education Web Site**

Early Childhood Education (B.S. in Ed.) At-a-Glance

Degree Granted: Bachelor of Science in Education

Minimum Hours Required for Degree: 134 to 152 semester hours

Teaching Credential:
Ohio two-year provisional teaching license in early childhood (ages 3 to 8 and grades prek-3, including children with mild/moderate disabilities). Requires successful completion of all program requirements and acceptable scores on applicable PRAXIS II examinations as mandated by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Accreditation:
Having met current curriculum guidelines set by the National Association for the Education of Young Children, the Early Childhood Education Program is accredited by the National Council for Accreditation of Teacher Education.

Admission to Major:
Must be admitted to the College of Education and Human Services (requires 2.50 cumulative grade-point average). Must also be accepted into a College of Education and Human Services program. This requires 2.50 cumulative grade-point average; grade of C or better on college-level English composition course; grade of C or better on college-level math course; an intake interview; and verification of good moral character.

Advising:
Admission and program guidelines may be secured from the College Advising Office, Rhodes Tower Room 1401, (216) 687-4625. Continuing academic, personal, and professional advising is available from assigned faculty advisers and the College Advising Office.

Evening Program:
Classes that do not require field work are frequently offered in the evenings; some are offered during the day. Students must be available for field placements in area schools during the day.

Department Office: Teacher Education; 1319 Rhodes Tower, (216) 687-4600.

The Early Childhood Education Program prepares candidates for teaching children from ages 3 to 8 (prek - grade 3), including typically developing youngsters and those with mild and moderate disabilities. Taken as a whole, the curriculum focuses on the development of teaching and learning practices associated with high-quality early childhood education for young children representing diverse cultures and abilities. These practices respect all children and provide them with equal opportunity to develop emotionally, socially, morally, physically, intellectually, and aesthetically and to extend their learning in all content areas. The development of professional knowledge and skills is aided by reflective practice and inquiry. To that end, the observation of children and early childhood settings accompanies relevant study, is followed by on-site practice, and culminates in supervised student teaching.

Major-Field Requirements

Required Courses:

A. General Education Requirements

Course work in this area will total 58 to 78 semester hours.

1. **Writing**
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)

(**Note:**
The three-course Writing-Across-the-Curriculum requirement will be met by EDB 301, EDB 302, ECE 300, EDL 301, and EDL 312)

2. **Mathematics and Logic**
    - **MTH 127 Mathematics for Elementary and Middle School Teachers I** (4 hours)
    - **MTH 128 Mathematics for Elementary and Middle School Teachers II** (4 hours)
    - **MTH 129 Mathematics for Elementary and Middle School Teachers III** (2 hours)
3. **Arts and Humanities**
    - **ART 252** *or* **ART 253** Introduction to Western Art (4 hours)
    - Literature course to be selected from approved list (3 to 4 hours)
    - One additional course from approved list (3 to 4 hours)
4. **Western Culture and Civilization**
    - **HIS 101** *or* **HIS 102** Western Civilization (4 hours)
5. **Nonwestern Culture and Civilization (select one course from following list)**
    - **ANT/PSC 227** Power, Authority, and Society in Non-Western Communities (4 hours)
    - **ENG/MLA 204** Non-Western Literature (4 hours)
    - **ENG 210 Native American Literature** (4 hours)
    - **HIS 165 Introduction to Latin American History** (4 hours)
    - **HIS 175 Introduction to African History** (4 hours)
    - **HIS 373 Contemporary Japan in Historical Perspective** (4 hours)
    - **HIS 374 Revolutionary Movements in Modern China** (4 hours)
    - **HIS 377 History of Islamic Civilizations** (4 hours)
6. **Social Sciences**
    - **PSY 220 Child Development** (3 hours)
    - **SPH 229 Speech and Language Development** (3 hours)
    - Other course from approved list (3 hours)
7. **Natural Sciences**
    - **BIO 106 Human Biology in Health and Disease** (3 hours)
    - **BIO 107 Human Biology Laboratory** (2 hours)
    - **GEO 100 Introduction to Geology** (3 hours)
    - **GEO 101 Introduction to Geology Lab** (1 hour)
8. **Human Diversity**
    - **EDC 300 Diversity in Educational Settings** (3 hours)
9. **African-American Experience**
    - Select 1 course from approved list (0 to 4 hours)
      (Note: May be course used to fulfill requirements in another area.)
10. **Wellness**
    - **HED 210 Personal Health** (3 hours)
11. **Foreign Language**
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL) and 1 foreign culture course (0-12 hours)

B. Professional Education Requirements

Core course work in education and related professional experiences are included in this area for a total of 13 hours. Where applicable, all prerequisites must be met prior to enrollment in these courses. In addition, EDB 301 and EDB 302 must be taken concurrently. The professional education foundation courses must be completed first in the education sequence as they are prerequisites for many of the remaining Professional Education courses.

Foundations

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)
- **ECE 300 Introduction to Early Childhood Education** (3 hours)

C. Concentration Requirements

Specialized course work in early childhood education and related professional experiences are included in the following areas for a total of 62 hours. Because certain courses in this sequence must be taken concurrently or in a prescribed order, students are strongly advised to seek assistance from the College Advising Office (RT 1401) before registering for classes.

Curriculum and Methods

- **ECE 401 Developmental Curriculum for Early Childhood Education** (4 hours)
- **ECE 402 Teaching Methods in Early Childhood Education** (4 hours)
- **ECE 403 Teaching Young Children with Mild and Moderate Disabilities** (3 hours)

Literacy

- **EDL 300 Phonics Assessment and Instruction** (3 hours)
- **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
- **EDL 311 Emergent Literacy** (3 hours)
- **EDL 312 Literature-Based Reading Methods for Children** (3 hours)

Special Methods

- **ESE 415 Assessing Young Children** (4 hours)
- **ECE 412 Collaboration with Families and Professionals in Early Childhood Settings** (4 hours)
- **ECE 415 Mathematics Instruction in Preschool and the Primary Grades** (3 hours)
- **ECE 416 Social Studies Instruction in Preschool and the Primary Grades** (3 hours)
- **ECE 417 Science Instruction in Preschool and the Primary Grades** (3 hours)
- **EDC 309 Art Methods for the Classroom Teacher** (2 hours)
- **MUS 301 Music Fundamentals and Methods for the Classroom Teacher** (4 hours)
- **PED 316 Health and Physical Education for the Classroom Teacher** (3 hours)

D. Culminating Experiences

- **EST 370 Practicum in Early Childhood Education** (3 hours)
- **EST 480 Student Teaching in Early Childhood Education** (10 hours)

Middle Childhood Education

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- **Go to Department of Teacher Education Web site**

Middle Childhood Education (B.S. in Ed.)
At-a-Glance

Degree Granted: Bachelor of Science in Education

Specialization Options:
The program provides for discipline-specific preparation in at least two teaching fields to be selected from the following alternatives: reading and language arts, mathematics, science, social studies.

Minimum Hours Required for Degree: 134 to 178 semester hours

Teaching Credential:
Ohio two-year provisional teaching license in Middle Childhood (ages 8 to 14 and grades 4 to 9). Requires successful completion of all program requirements and acceptable scores on applicable PRAXIS II examinations as mandated by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Accreditation:
Having met current curriculum guidelines set by the National Middle School Association, the Middle Childhood Education Program is accredited by the National Council for Accreditation of Teacher Education.

Admission to Major:
Must be admitted to the College of Education and Human Services (requires 2.50 cumulative grade-point average). Must also be accepted into a College of Education and Human Services program. This requires 2.50 cumulative grade-point average; grade of C or better on college-level English composition course; grade of C or better on college-level math course; an intake interview; and verification of good moral character.

Advising:
Admission and program guidelines may be secured from the College Advising Office, Rhodes Tower Room 1401, (216) 687-4625. Continuing academic, personal, and professional advising is available from assigned faculty advisers and the College Advising Office.

Evening Program:
There is no evening program since students must be available for field placements in area schools during the day. However, those classes that do not require field work are frequently offered in the evenings.

Department Office: Teacher Education; 1319 Rhodes Tower, (216) 687-4600.

The Middle Childhood Education Program is intended to prepare candidates for teaching children from ages 8 to 14. Taken as a whole, the curriculum focuses on the nature and needs of early adolescents as they particularly relate to the design, delivery, and evaluation of culturally and developmentally responsive instruction. Throughout the program, the acquisition of professional knowledge and skills is aided by reflective practice and inquiry. To that end, the observation of middle- and junior-high school students and settings accompanies relevant study, is followed by on-site practice, and culminates in supervised student teaching. As previously noted, the program provides for concentrated study in at least two teaching fields.

Major-Field Requirements

Required Courses:

A. General Education Requirements

Course work in this area will total 55 to 80 hours.

1. **Writing**
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)

- (*Note:* The three-course Writing-Across-the-Curriculum requirement will be met by **EDB 301**, **EDB 302**, **EDL 301**, **EDM 313**, and **ESE 400**).

2. **Mathematics and Logic**
   - If Math is selected as one of the concentrations:
     - **MTH 328 Geometry for Middle School Teachers** (4 hours)
     - **MTH 329 Data Analysis and Probability for Middle School Teachers** (4 hours)
   - If Math is not selected as one of the concentrations:
     - **MTH 127 Mathematics for Elementary and Middle School Teachers I** (4 hours)
     - **MTH 128 Mathematics for Elementary and Middle School Teachers II** (4 hours)
     - **MTH 129 Mathematics for Elementary and Middle School Teachers III** (2 hours)
3. **Arts and Humanities**
   - Two literature courses to be selected from approved list (6 to 8 hours)
   - One additional course from approved list; may *not* be an offering of the English Department (3 to 4 hours)
4. **Western Culture and Civilization**
   - **HIS 101** *or* **HIS 102 Western Civilization** (4 hours)
5. **Nonwestern Culture and Civilization (select one course from following list)**
   - If Social Studies is selected as one of the concentrations:
     - **ANT/PSC 227 Power, Authority, and Society in Non-Western Communities** (4 hours)
     - **HIS 370 World History** (4 hours)
   - If Social Studies is not selected as one of the concentrations:
     - Select a course from approved list (4 hours)
6. **Social Sciences**
   - **PSC 111 American Government** (4 hours)
   - **PSY 220 Child Development** (3 hours)
   - **PSY 221 Adolescent Psychology** (3 hours)
7. **Natural Sciences**
   - **BIO 106 Human Biology in Health and Disease** (3 hours)
   - **BIO 107 Human Biology Laboratory** (2 hours)
   - **GEO 100 Introduction to Geology** (3 hours)
   - **GEO 101 Introduction to Geology Lab** (1 hour)
8. **Human Diversity**
   - **EDC 300 Diversity in Educational Settings** (3 hours)
9. **African-American Experience**
   - Select 1 course from approved list (0 to 4 hours)
     Note: May be course used to fulfill requirements in another area.
10. **Wellness**
    - **HPR 101 Wellness as a Lifestyle** (1 hour)
11. **Foreign Language**
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL)
      and 1 foreign culture course (0-12 hours)

B. Professional Education Requirements

Core course work in education and related professional experiences are included in this area for a total of 44 hours. Because certain courses in this sequence must be taken concurrently or in a prescribed order, students are strongly advised to seek assistance from the College Advising Office (RT 1401) before registering for classes.

1. **Group A — Foundations**
   - **EDB 200 Teaching as a Profession** (2 hours)
   - **EDB 300 Educational Technology** (2 hours)
   - **EDB 301 Social Foundations of Education** (3 hours)
   - **EDB 302 Psychological Foundations of Education** (3 hours)
2. **Group B — Literacy**
   - **EDL 300 Phonics Assessment and Instruction** (3 hours)
   - **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
   - **EDL 305 Content Area Literacy** (3 hours)
   - **EDL 313 Literature-Based Reading Methods for Adolescents** (3 hours)
3. **Group C — Curriculum & Methods**
   - **EDB 303 Teaching and Management in the Middle Schoo**l (3 hours)
   - **EDB 304 History and Philosophy of the Middle School** (1 hour)
   - **ESE 404 Teaching Students of Varying Abilities** (3 hours)
4. **Group D — Culminating Experiences**

- **EDB 400 Classroom Assessment** (2 hours)
- **EST 371 Practicum in Middle Childhood Education** (3 hours)
- **EST 481 Student Teaching in Middle Childhood Education** (10 hours)

C. Licensure/Concentration Requirements

Concentrated course work in at least two teaching fields is included in this area for a total of 35 to 54 hours. Eligibility for enrollment in these courses demands the prior completion of any prerequisites.

1. **Reading and Language Arts**
   (19 to 20 hours)
   - **COM 225 Media Writing *or* ENG 304 Creative Writing for Teachers** (4 hours)
   - **COM 242 Public and Professional Speaking** *or* **DRA 225 Principles of Acting** (3 to 4 hours)
   - **EDM 313 Teaching and Assessing Language Arts in the Middle School** (4 hours)
   - **ENG 206 Literature and American Culture** *or* **ENG 342 Survey of American Literature** (4 hours)
   - **ENG 310 Traditional Grammar** *or* **ENG 311 Elements of Linguistics** (4 hours)
2. **Mathematics (16 hours)**
   - **EDM 315 Teaching and Assessing Mathematics in the Middle School** (4 hours)
   - **MTH 326 Numbers, Patterns and Operations for Middle School Teachers** (4 hours)
   - **MTH 327 Algebra and Functions for Middle School Teachers** (4 hours)
   - **MTH 330 Conversational Calculus for Middle School Teachers** (4 hours)
3. **Science (24 hours)**
   - **BIO 380 Biology Content for Middle School Teachers** (5 hours)
   - **CHM 380 Principles of Chemistry for Middle School Teachers** (5 hours)
   - **EDM 317 Teaching and Assessing Science in the Middle School** (4 hours)
   - **EVS 380 Earth System Science for Middle School Teachers** (5 hours)
   - **PHY 400 Conceptual Physics for Middle School Teachers** (4 hours)
4. **Social Studies (30 hours)**
   - **ECN 201 Principles of Macroeconomics** (3 hours)
   - **ECN 202 Principles of Microeconomics** (3 hours)
   - **EDM 316 Teaching and Assessing Social Studies in the Middle School** (4 hours)
   - **HIS 200 Introduction to Geography** (4 hours)
   - **HIS 111 United States History to 1877** (4 hours)
   - **HIS 112 United States History since 1877** (4 hours)
   - **HIS 306 History of Ohio** *or* **HIS 400 Local History Seminar** (4 hours)
   - **PSC 221 Comparative Politics** *or* **PSC 231 International Politics** (4 hours)

Physical Education and Sport

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- **Go to HPERD Department**

Physical Education and Sport (B.S. in Ed.)

At-a-Glance

Degree granted: Bachelor of Science in Education

Specialization Options: Multi-Age Physical Education Teaching License; **Allied Sport Professions** (Exercise/Fitness Specialist *or* Sport Manager)

Minimum hours required for degree:
Multi-Age Licensure: 121 to 142 semester hours; Allied Sport Professions: 120 to 141 semester hours. Note: A grade of C or better must be earned in required major-field courses.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Admission to Major:
Must be admitted to the College of Education and Human Services (requires 2.50 cumulative grade-point average). Must also be accepted into a College of Education and Human Services program. This requires 2.50 cumulative grade-point average; a grade of C or better on college-level English composition course; grade of C or better on college-level math course; an intake interview with the HPERD Department coordinator of Student Services; and verification of good moral character.

Advising: Admission and program guidelines may be secured from the **HPERD Department Office**, PE 228, (216) 687-4870, or the College Advising Office, Rhodes Tower Room 1401, (216) 687-4625. Continuing academic, personal, and professional advising is available from assigned faculty advisers.

Student organization: PESO (Physical Education Student Organization)

Additional information:
Departmental awards available to students include Jane Pease Service Award, Academic Achievement Award, and Major of the Year Award. An internship experience is part of the Allied Sport Professions program.

Introduction

The Department of Health, Physical Education, Recreation, and Dance offers a major in Physical Education and Sport, with two main options. The first option, Multi-Age Teaching Licensure (between 121 and 142 hours), leads to an Ohio Teaching License in Physical Education (Grades Pre-K through 12). The second option, Allied Sport Professions (between 120 and 141 hours), is to prepare for a career as exercise/fitness specialist **or** sport manager.

The department also offers a post-graduate licensure program in physical education and a multi-age licensure program in health education as a second teaching area.
Program minors are available in Dance, Health Education, and Sport Management. Completion of an approved program minor is noted on the student's official transcript.

Visit the **HPERD Department** office, Physical Education Building Room 228, for specific information or telephone (216) 687-4870.

Web site: **http://www.csuohio.edu/coehs/departments/hperd/**.

Major-Field Requirements

- **For Multi-Age Teaching Licensure in Physical Education**
- **For Allied Sport Professions**

Multi-Age Licensure in Physical Education

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About Multi-Age Licensure

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

Requirements

(121 hours, minimum)

A. General Education Requirements

Requirements in this area will total a minimum of 42 hours (more if certain courses are not used to fulfill requirements in more than one area)

1. *Writing*
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)
    - *Note:* Three additional Writing-Across-the-Curriculum courses must be taken in meeting other requirements
2. *Mathematics and Logic*
    - Select two approved courses (6 to 8 hours)
3. *Arts and Humanities*
    - Select three approved courses from at least two different departments (9 to 12 hours)
4. *Nonwestern Culture and Civilization*
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
5. *Western Culture and Civilization*
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
6. *Social Sciences*
    - **PSY 220 Child Development** (3 hours)
    - **PSY 221 Adolescent Psychology** (3 hours)
    - Third course from department other than psychology (3 to 4 hours)
7. *Natural Sciences*
    - **BIO 266/267** Human Anatomy and Physiology I (4 hours)
    - **BIO 268/269** Human Anatomy and Physiology II (4 hours)
8. *Diversity and African-American Experience*
    - **EDC 300 Diversity in Educational Settings** (3 hours)
    - One course in African-American Experience (0 to 4 hours). May be course used to fulfill requirements in Arts and Humanities or Social Sciences
9. *Wellness*
    - **HPR 101 Wellness as a Lifestyle** (0 to 1 hour)
      (**HED 210** in major may be used to meet this requirement)
10. *Foreign Language*
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL) and 1 foreign culture course (0-12 hours)

B. Professional Education Requirements

Education course work and related professional experiences are included in this area (23 hours)

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)

- **EDL 305 Content Area Literacy** (3 hours)
- **PED 483 Student Teaching** (10 hours)

C. Major-Field Requirements

Required course work in physical education is included in this area (56 or 58 hours).

Forms of Movement (11 hours)

1. *Group* I (select 2 courses)
    - **PED 210 Archery, Golf** (1 hour)
    - **PED 211 Badminton, Tennis** (1 hour)
    - **PED 212 Bowling, Table Tennis, Orienteering, Boccie Ball, Croquet** (1 hour)
    - **PED 213 Track and Field, Aerobic Activities** (1 hour)
2. *Group II* (select 2 courses)
    - **PED 215 Lacrosse, Field Hockey, Touch Football** (1 hour)
    - **PED 216 Pickleball, Rugby, Team Handball, Broomball, Floor Hockey** (1 hour)
    - **PED 217 Softball, Basketball** (1 hour)
    - **PED 218 Volleyball, Soccer** (1 hour)
3. *Alternative/Lifetime Sports* (select 1 course)
    - **PED 220 Cross-Country Skiing and Snowshoeing** (1 hour)
    - **PED 221 In-Line Skating and Cycling** (1 hour)
    - **PED 222 Rock Climbing and Backpacking** (1 hour)
    - **PED 227 Aerobic Instructor Training** (1 hour)
    - **PED 240 Adventure Sports** (2 hours)
4. *Gymnastics/Swimming/Dance* (4 courses required)
    - **PED 225 Movement, Tumbling, and Apparatus** (2 hours)
    - **PED 226 Swimming** (1 hour)
    - **DAN 210 Dance for the Physical Educator** (1 hour)
    - **DAN 410 Teaching Dance** (2 hours)

Theory/Methods (47 Hours)

- **HED 200 First Aid and Emergency Care** (0-2 hours)
- **HED 210 Personal Health** (3 hours)
- **PED 200 Foundations of Sport, Exercise, and Movement** (2 hours)
- **PED 301 Early/Middle Childhood Physical Education** (3 hours)
- **PED 302 Middle/Adolescent-Young Adult Physical Education** (3 hours)
- **PED 322 Kinesiology** (3 hours)
- **PED 324 Physical Fitness** (1 hour) (take with PED 325)
- **PED 325 Physiology of Exercise** (4 hours) (take with PED 324)
- **PED 328 Legal and Administrative Aspects of Physical Education** (4 hours)
- **PED 330 Motor Learning and Development** (4 hours) - Writing course
- **PED 415 Evaluation in Physical Education** (3 hours)
- **PED 430 Psychosocial Aspects of Physical Activity** (4 hours) - Writing course
- **PED 435 Physical Education for Students with Disabilities** (4 hours)
- **PED 440 Modes and Models in Physical Education** (4 hours) - Writing course
- **PED 445 Gateway to the Profession: Communication and Collaboration** (3 hours) (must be taken concurrently with Student Teaching)

Physical Education and Sport

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Allied Sport Professions (Specialization Option)

Exercise/Fitness Specialist (120 to 136 hours)
Sport Manager (120 to 141 hours)

- **General Education Requirements**
- **Professional Requirements**
- **Specialty Requirement**
    - **Exercise/Fitness Specialist**
    - **Sport Manager**

Required Courses:

A. General Education Requirements

Requirements in this area will total a minimum of 43 hours (or more if certain courses are not used to fulfill requirements in more than one area). Students in all four specialty areas must meet General Education Requirements as outlined. This is not a teaching licensure program.

1. **Writing**
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)
    - Note: Three additional Writing-Across-the-Curriculum courses must be taken in meeting other requirements
2. **Mathematics and Logic**
    - Select two approved courses (6 to 8 hours)
3. **Arts and Humanities**
    - Select three approved courses from at least two different departments (9 to 12 hours)
4. **Nonwestern Culture and Civilization**
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
5. **Western Culture and Civilization**
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
6. **Social Sciences**
    - **PSY 101 Introduction to Psychology** (4 hours)
    - Two additional courses (only one may be from Psychology Department) (6 to 8 hours)
    - *Students specializing in sports management* must take **ECN 201** (Introduction to Macroeconomics; 3 hours), and **ECN 202** (Introduction to Microeconomics; 3 hours)
7. **Natural Sciences**
    - **BIO 266/267 Human Anatomy and Physiology** I (4 hours)
    - **BIO 268/269 Human Anatomy and Physiology** II (4 hours)
8. **Diversity and African-American Experience**
    - One course in Diversity (3-4 hours)
    - One course in African-American Experience (may be course used to fulfill requirements in Arts and Humanities or Social Sciences) (0 to 4 hours)
9. **Wellness**
    - **HPR 101 Wellness as a Lifestyle** (0 to 1 hour)
      (**HED 210** in professional core may be used to meet this requirement)
10. **Foreign Language**
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL) and 1 foreign culture course (0-12 hours)

B. Professional Core Requirements

The professional core of 28 to 30 hours is required for students in the two specialty areas.

- **HED 200 First Aid and Emergency Care** (0-2 hours)
- **HED 210 Personal Health** (3 hours)
- **HED 475 Nutrition and Physical Activity** (3 hours) - Writing course
- **PED 200 Foundations of Sport, Exercise, and Movement** (2 hours)
- **PED 322 Kinesiology** (3 hours)
- **PED 324 Physical Fitness** (1 hour)
- **PED 325 Physiology of Exercise** (4 hours)
- **PED 430 Psychosocial Aspects of Physical Activity** (4 hours) - Writing course
- **PED 435 Physical Education for Students with Disabilities** (4 hours)
- **PED 465 Law and Policy Studies in Sport and Physical Education** (4 hours)

C. Specialty Requirements

1.Exercise/Fitness Specialist (37 to 41 hours)

Theory and Practice (32 to 36 hours)

- **HED 359 Principles of Health Education** (3 hours)
- **MLR 301 Principles of Management** (3 hours)
- **PED 205 Introduction to Sports Management** (3 hours)
- **PED 415 Evaluation in Physical Education** (3 hours)
- **PED 466 Sport Facility Management** (3 hours) - Writing course
- **PED 467 Sport Marketing** (3 hours)
- **PED 470 Seminar in Training and Conditioning** (3 hours)
- **PED 472 Physiology of Aging** (3 hours)
- **PED 480/481 Internship and Senior Seminar** (8 or 12 hours)

Personal Skill (5 hours)

- **PED 210-213 Group I Forms of Movement** Course (1 hour)
- **PED 215-218 Group II Forms of Movement Course** (1 hour)
- **PED 220-222 Alternative/Lifetime Sports Forms of Movement Course** (1 hour)
- **PED 227 Aerobics Instructor Training** (1 hour)
- **PED 240 Adventure Sports** (2 hours)
- **PES 101 Physical Fitness** (1 hour)
- **PES 104 Jogging** (1 hour)
- **PES 105 Weight Training** (1 hour)
- **PES 107 Cross Training** (1 hour)
- **PES 128 Aquatics Fitness** (1 hour)
- **PES 160 Water Aerobics** (1 hour)

2.Sport Manager (46 hours)

Theory and Practice (32 to 36 hours)

- **ACT 221 Introductory Accounting** (3 hours)
- **GAD 250 Business Communication** (3 hours)
- **IST 203 Software Tools for Personal Productivity** (3 hours)
- **MLR 301 Principles of Management** (3 hours)
- **PED 205 Introduction to Sport Management** (3 hours)
- **PED 461 Sport Governance** (3 hours)
- **PED 466 Sport Facility Management** (3 hours) - Writing course
- **PED 467 Sport Marketing** (3 hours)
- **PED 480/481 Internship** and **Senior Seminar** (8 or 12 hours)

Personal Skill (5 hours)

Select 5 hours of PES, PED, or DAN Forms of Movement or activity courses; one from each group (5 hours)

Planned Electives (5 to 9 hours)

With adviser guidance, select 5 to 9 hours depending on number of hours in **PED 480/481** Internship and Senior Seminar (8 or 12 hours)

Special Education

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Special Education Intervention Specialist (B.S. in Ed.) At-a-Glance

Degree Granted: Bachelor of Science in Education

Specialization Options: Mild/Moderate Educational Needs; Moderate/Intensive Educational Needs

Minimum Hours Required for Degree:
Licensure as a Mild/Moderate Intervention Specialist: 130 to 161 hours; Licensure as a Moderate/Intensive Intervention Specialist: 137 to 168 hours.

Teaching Credential:
Ohio two-year provisional teaching license as a Mild/Moderate or Moderate/Intensive Intervention Specialist (ages 5 through 21 and grades K through 12). Requires successful completion of all program requirements and acceptable scores on applicable PRAXIS II examinations as mandated by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Accreditation:
Having met current curriculum guidelines set by the Council for Exceptional Children, the Special Education Program is accredited by the National Council for Accreditation of Teacher Education.

Admission to Major:
Must be admitted to the College of Education and Human Services (requires 2.50 cumulative grade-point average). Must also be accepted into a College of Education and Human Services program. This requires 2.50 cumulative grade-point average; grade of C or better on college-level English composition course; grade of C or better on college-level math course; an intake interview; and verification of good moral character.

Advising:
Admission and program guidelines may be secured from the College Advising Office, Rhodes Tower Room 1401, (216) 687-4625. Continuing academic, personal, and professional advising is available from assigned faculty advisers and the College Advising Office.

Evening Program:
No evening program as students must be available for field placements in area schools during the day; however, those classes that do not require fieldwork are generally offered in the evenings.

Department Office: Teacher Education; 1319 Rhodes Tower, (216) 687-4600. Primarily designed to provide course work in the education of learners with exceptional needs. Available program options in the field of special education permit concentrated study in one of two areas: Learners with Mild or Moderate Educational Needs or Learners with Moderate or Intensive Educational Needs.

The specialization in Mild/Moderate Educational Needs is designed to prepare candidates to develop, implement, and evaluate individualized programs for children and adolescents ages 5 through 21 who have special academic and social adjustment needs. These individuals are typically identified as having a specific learning disability, mild/moderate mental retardation, or mild/moderate behavioral disorders. Students who complete this program are eligible for provisional licensure as a mild/moderate intervention specialist and will demonstrate diagnostic skills and competencies in the assessment of academic and social needs as they particularly apply to the development and delivery of instruction in both regular and special-education classrooms.

Alternatively, the Moderate/Intensive Educational Needs specialization is intended to prepare candidates to work with children and youths ages 5 through 21 who have moderate, severe, or profound mental retardation; emotional disorders; or multiple disabilities. Students who complete this program are eligible for provisional licensure as a Moderate/Intensive Intervention Specialist and will demonstrate skills in curriculum design and implementation, interdisciplinary teaming, and working with parents of individuals with exceptional needs.

Major-Field Requirements

Required Courses:

A. General Education Requirements

Course work in this area will total 57 to 88 hours.

1. *Writing*
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)
    - *Note:* The 3-course Writing-Across-the-Curriculum requirement will be met by **EDB 301**, **EDB 302**, **EDL 301** and **EDL 312**.
2. *Mathematics and Logic*
    - **MTH 127 Mathematics for Elementary and Middle School Teachers I** (4 hours)
    - **MTH 128 Mathematics for Elementary and Middle School Teachers II** (4 hours)
    - **MTH 129 Mathematics for Elementary and Middle School Teachers III** (2 hours)
3. *Arts and Humanities*
    - **ART 252** or **ART 253 Introduction to Western Art** (4 hours)
    - Literature course to be selected from approved list (3 to 4 hours)
    - One additional course from approved list (3 to 4 hours)
4. *Western Culture and Civilization*
    - **HIS 101** or **HIS 102 Western Civilization** (4 hours)
5. *Nonwestern Culture and Civilization* (select 1 course from following list)
    - **ANT/PSC 227 Power, Authority, and Society in Nonwestern Communities** (4 hours)
    - **ENG/MLA 204 Nonwestern Literature** (4 hours)
    - **ENG 210 Native American Literature** (4 hours)
    - **HIS 165 Introduction to Latin American History** (4 hours)
    - **HIS 175 Introduction to African History** (4 hours)
    - **HIS 373 Contemporary Japan in Historical Perspective** (4 hours)
    - **HIS 374 Revolutionary Movements in Modern China** (4 hours)
    - **HIS 377 History of Islamic Civilizations** (4 hours)
6. *Social Sciences*
    - **PSY 220 Child Development** (3 hours)
    - **PSY 221 Adolescent Psychology** (3 hours)
    - **SPH 229 Speech and Language Development** (3 hours)
7. *Natural Sciences*
    - **BIO 106 Human Biology in Health and Disease** (3 hours)
    - **BIO 107 Human Biology Laboratory** (2 hours)
    - **GEO 100 Introduction to Geology** (3 hours)
    - **GEO 101 Introduction to Geology Lab** (1 hour)
8. *Human Diversity*
    - **EDC 300 Diversity in Educational Settings** (3 hours)
9. *African-American Experience*
    - Select 1 course from approved list (0 to 4 hours)
    - *Note:* May be course used to fulfill requirements in another area.
10. *Wellness*
    - **HED 101 Wellness as a Lifestyle** (1 hours)
11. *Foreign Language*
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL) and 1 foreign culture course (0-12 hours)

B. Professional Education Requirements

Core course work in education and related professional experiences are included in this area for a total of 10 hours. Where applicable, all prerequisites must be met prior to enrollment in these courses. In addition, **EDB 301** and **EDB 302** must be taken concurrently. The Professional Education courses must be completed first in the education sequence as they are perquisites for most of the major-field requirements.

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)

C. Major-Field Requirements

Course work in special education and related professional experiences are included in this area for a total of 63 to 70 hours depending on choice of specialty in **mild/moderate** or **moderate/severe educational needs**. Because certain courses in these sequences must be taken concurrently or in a prescribed order, students are strongly advised to seek assistance from the College Advising Office (RT 1401) before registering for classes.

1. *Mild/Moderate Intervention Specialist* (63 hours)
    - **ECE 415 Mathematics Instruction in Preschool and the Primary Grades** (3 hours)
    - **ECE 417 Science Instruction in Preschool and the Primary Grades** (3 hours)

- **EDL 300 Phonics Assessment and Instruction** (3 hours)
- **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
- **EDL 305 Content Area Literacy** (3 hours)
- **EDL 312 Literature Based Reading Methods for Children** (3 hours)
  or
  EDL 313 Literature-Based Reading Methods for Adolescents (3 hours)
- **ESE 400 Introduction to Special Education** (4 hours)
- **ESE 402 Introduction to Individuals With Mild/Moderate Educational Needs** (4 hours)
- **ESE 411 Classroom Management and Intervention for Severe Behavior Problems** (4 hours)
- **ESE 412 Collaboration and Partnerships Among Parents and Professionals in Special Education** (4 hours)
- **ESE 416 Life Skills and Career Planning in Special Education** (2 hours)
- **ESE 421 Assessment for Instructional Needs** (4 hours)
- **ESE 422 Assessment-Based Curriculum and Instruction for Students with Mild/Moderate Disabilities** (4 hours)
- **EST 377 Practicum in Special Education: Mild/Moderate Educational Needs** (4 hours)
- **EST 487 Student Teaching for Mild/Moderate Educational Needs** (12 hours)
- **PED 439 Therapeutic Recreation and Disability Sport** (3 hours)
- **PED 456 Individualized Physical Education for Children with Special Needs** (3 hours)

2. *Moderate/Intensive Intervention Specialist* (70 hours)
   - **ECE 415 Mathematics Instruction in Preschool and the Primary Grades** (3 hours)
   - **EDC 309 Art Methods for the Classroom Teacher** (2 hours)
   - **EDL 300 Phonics Assessment and Instruction** (3 hours)
   - **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
   - **EDL 305 Content Area Literacy** (3 hours)
   - **EDL 312 Literature-Based Reading Methods for Children** (3 hours)
   - **ESE 400 Introduction to Special Education** (4 hours)
   - **ESE 403 Introduction to Individuals With Moderate/Severe Educational Needs** (4 hours)
   - **ESE 410 Diagnostic Assessment and Multi-Factored Evaluation for Students with Moderate and Severe Disabilities** (2 hours)
   - **ESE 411 Classroom Management and Intervention for Severe Behavior Problems** (4 hours)
   - **ESE 412 Collaboration and Partnerships Among Parents and Professionals in Special Education** (4 hours)
   - **ESE 413 Supporting Medical and Intensive Educational Needs** (4 hours)
   - **ESE 419 Life Skills Assessment, Curriculum, and Instruction** (4 hours)
   - **ESE 420 Assessment, Curriculum, and Instruction to Meet the Academic and Behavioral Needs of Students with Moderate/Severe Educational Needs** (4 hours)
   - **EST 378 Practicum in Special Education: Moderate/Severe Educational Needs** (4 hours)
   - **EST 488 Student Teaching for Moderate/Severe Educational Needs** (12 hours)
   - **MUS 301 Music Fundamentals and Methods for the Classroom Teacher** (4 hours)
   - **PED 456 Individualized Physical Education for Children with Special Needs** (3 hours)
     or **PED 439 Therapeutic Recreation and Disability Sport** (3 hours)

Multi-Age Programs

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About Multi-Age Licensure

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

The College of Education and Human Services offers Multi-Age licensure in the following areas:

- **Multi-Age Licensure in Physical Education**
- **Multi-Age Licensure in Health Education as a Second Teaching Field**
- **Multi-Age Licensure in Foreign Language Education, Grades PreK to 12** (French or Spanish)
- **Multi-Age Licensure in Music Education, Grades PreK to 12**
- **Multi-Age Licensure in Visual Arts Education, Grades PreK to 12**

Multi-Age Licensure in Physical Education

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About Multi-Age Licensure

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

Requirements

(121 hours, minimum)

A. General Education Requirements

Requirements in this area will total a minimum of 42 hours (more if certain courses are not used to fulfill requirements in more than one area)

1. *Writing*
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II** (3 hours)
    - *Note:* Three additional Writing-Across-the-Curriculum courses must be taken in meeting other requirements
2. *Mathematics and Logic*
    - Select two approved courses (6 to 8 hours)
3. *Arts and Humanities*
    - Select three approved courses from at least two different departments (9 to 12 hours)
4. *Nonwestern Culture and Civilization*
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
5. *Western Culture and Civilization*
    - Select one course: may be course used to fulfill requirements in Arts and Humanities or Social Sciences (0 to 4 hours)
6. *Social Sciences*
    - **PSY 220 Child Development** (3 hours)
    - **PSY 221 Adolescent Psychology** (3 hours)
    - Third course from department other than psychology (3 to 4 hours)
7. *Natural Sciences*
    - **BIO 266/267** Human Anatomy and Physiology I (4 hours)
    - **BIO 268/269** Human Anatomy and Physiology II (4 hours)
8. *Diversity and African-American Experience*
    - **EDC 300 Diversity in Educational Settings** (3 hours)
    - One course in African-American Experience (0 to 4 hours). May be course used to fulfill requirements in Arts and Humanities or Social Sciences
9. *Wellness*
    - **HPR 101 Wellness as a Lifestyle** (0 to 1 hour)
      (**HED 210** in major may be used to meet this requirement)
10. *Foreign Language*
    - 2 semesters of foreign language or 2 semesters of American Sign Language (ASL) and 1 foreign culture course (0-12 hours)

B. Professional Education Requirements

Education course work and related professional experiences are included in this area (23 hours)

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)

- **EDL 305 Content Area Literacy** (3 hours)
- **PED 483 Student Teaching** (10 hours)

C. Major-Field Requirements

Required course work in physical education is included in this area (56 or 58 hours).

Forms of Movement (11 hours)

1. *Group* I (select 2 courses)
    - **PED 210 Archery, Golf** (1 hour)
    - **PED 211 Badminton, Tennis** (1 hour)
    - **PED 212 Bowling, Table Tennis, Orienteering, Boccie Ball, Croquet** (1 hour)
    - **PED 213 Track and Field, Aerobic Activities** (1 hour)
2. *Group II* (select 2 courses)
    - **PED 215 Lacrosse, Field Hockey, Touch Football** (1 hour)
    - **PED 216 Pickleball, Rugby, Team Handball, Broomball, Floor Hockey** (1 hour)
    - **PED 217 Softball, Basketball** (1 hour)
    - **PED 218 Volleyball, Soccer** (1 hour)
3. *Alternative/Lifetime Sports* (select 1 course)
    - **PED 220 Cross-Country Skiing and Snowshoeing** (1 hour)
    - **PED 221 In-Line Skating and Cycling** (1 hour)
    - **PED 222 Rock Climbing and Backpacking** (1 hour)
    - **PED 227 Aerobic Instructor Training** (1 hour)
    - **PED 240 Adventure Sports** (2 hours)
4. *Gymnastics/Swimming/Dance* (4 courses required)
    - **PED 225 Movement, Tumbling, and Apparatus** (2 hours)
    - **PED 226 Swimming** (1 hour)
    - **DAN 210 Dance for the Physical Educator** (1 hour)
    - **DAN 410 Teaching Dance** (2 hours)

Theory/Methods (47 Hours)

- **HED 200 First Aid and Emergency Care** (0-2 hours)
- **HED 210 Personal Health** (3 hours)
- **PED 200 Foundations of Sport, Exercise, and Movement** (2 hours)
- **PED 301 Early/Middle Childhood Physical Education** (3 hours)
- **PED 302 Middle/Adolescent-Young Adult Physical Education** (3 hours)
- **PED 322 Kinesiology** (3 hours)
- **PED 324 Physical Fitness** (1 hour) (take with PED 325)
- **PED 325 Physiology of Exercise** (4 hours) (take with PED 324)
- **PED 328 Legal and Administrative Aspects of Physical Education** (4 hours)
- **PED 330 Motor Learning and Development** (4 hours) - Writing course
- **PED 415 Evaluation in Physical Education** (3 hours)
- **PED 430 Psychosocial Aspects of Physical Activity** (4 hours) - Writing course
- **PED 435 Physical Education for Students with Disabilities** (4 hours)
- **PED 440 Modes and Models in Physical Education** (4 hours) - Writing course
- **PED 445 Gateway to the Profession: Communication and Collaboration** (3 hours) (must be taken concurrently with Student Teaching)

Multi-Age Licensure in Health Education

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Program Description

This program prepares teachers in the area of school health education. This is not a stand-alone credential. Health Education licensure candidates must either have or be in the process of acquiring a license in another teaching area. The curriculum for the health education program was selected by using the guidelines developed by the American Association for Health Education and the National Council for the Accreditation of Teacher Education (AAHE/NCATE). The National Health Education Standards developed by the Joint Committee on National Health Education Standards also were utilized to develop the curriculum.

Requirements

1. **Foundations of School Health** (19-24 hours)
    - **HED 200 First Aid and Emergency Care** (2 hours)
    - **HED 210 Personal Health** (3 hours)
    - **HED 359 Principles of Health Education** (4 hours)
    - **HED 460 Foundations of a Coordinated School Health Program** (4 hours)
    - **HED 461 Methods and Materials of Health Education** (3 hours)
    - **HED 480 Practicum in Health** (3-8 hours)
2. **Content Area** (6 hours)
    - **HED 471 Substance Abuse Education** (3 hours)
    - **HED 473 Teaching Human Sexuality** (3 hours)
3. **Guided Electives** (10-15 hours)
    - **HED 450 Theories in Health Education and Health Behavior** (4 hours)
    - **HED 470 Pathophysiology of Disease** (4 hours)
    - **HED 472 Consumer Health** (3 hours)
    - **HED 474 Stress Management** (3 hours)
    - **HED 475 Nutrition and Physical Activity** (3 hours)
    - **HED 476 Teaching Nutrition** (3 hours)
    - **HPR 450 Microcomputer Application in Health and Physical Education** (3 hours)
    - **PED 472 Physiology of Aging** (3 hours)

Multi-Age Licensure in Foreign Language Education, Grades PreK to 12 (French or Spanish)

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About Multi-Age Licensures

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

Requirements

(91 hours)

1. **General Education**
   (7 hours): Complete the General Education Requirements for selected major, including specific courses noted below:
   - **PSY 221 Adolescent Psychology** (3 hours)
   - **EDC 300 Diversity in Educational Settings** (3 hours)
   - **HPR 101 Wellness as a Lifestyle** (1 hour)
2. **Professional Education**
   - **Group A Foundations** (10 hours)
     - **EDB 200 Teaching as a Profession** (2 hours)
     - **EDB 300 Educational Technology** (2 hours)
     - **EDB 301 Social Foundations of Education** (3 hours)
     - **EDB 302 Psychological Foundations of Education** (3 hours)
   - **Group B — Curriculum and Methods** (13 hours)
     - **EDB 305 Teaching and Management in the Secondary School** (3 hours)
     - **EDC 312 Foreign Language Education in the Elementary Schools** (2 hours) (must be taken with EST 374)
     - **EDC 313 Foreign Language Education in the Secondary Schools** (2 hours) (must be taken with EST 374)
     - **EDL 305 Content Area Literacy** (3 hours)
     - **ESE 404 Teaching Students of Varying Abilities** (3 hours)
   - **Culminating Experiences** (15 hours)
     - **EST 374 Practicum in Foreign Language Education** (3 hours)
     - **EDB 400 Classroom Assessment** (2 hours) (must be taken with **EST 484**)
     - **EST 484 Student Teaching in Foreign Language Education** (10 hours)
3. **Concentration**
   - **Concentration in French** (46 hours)
     - Select one from below or begin at placement level
       - **FRN 101 French I** *and/or* **FRN 102 French II** (0-10 hours)
     - Core A: Composition and Conversation
       - **FRN 301 Composition and Conversation** (4 hours)
       - **FRN 402 Advanced Composition and Conversation** (4 hours)
     - Core B: Civilization, Phonetics, and Literature
       - **FRN 201 Culture and Civilization** (4 hours)
       - **FRN 202 Francophone Perspectives on World Affairs** or **FRN 203 Readings in French** (4 hours)
       - **FRN 315 French Phonetics and Diction** (4 hours)
       - **FRN 344 French Civilization from Middle Ages to Empire** or **FRN 345 French Civilization from 1870 to the Present** (4 hours)
       - Select 8 credit hours in literature from the following:
         - **FRN 371 Literature Survey I** (4 hours)
         - **FRN 372 Literature Survey II** (4 hours)
         - **FRN 375 Readings in Francophone Literature** (4 hours)

- Core C: Electives. Select from list below to total 46 hours in major; at least 8 hours of the total must be at 400 level; no more than 8 hours of the total can be at 200 level
    - **FRN 200/300/400 Practicum in French** (1-6 hours)
    - **FRN 240/340/440 Field Study** (1-6 hours)
    - **FRN 216** *or*
      FRN 316 Translation and Interpretation (3 hours)
    - **FRN 296/396/496 Independent Study** (1-6 hours)
    - **FRN 302 Advanced Oral Styles** (4 hours)
    - **FRN 374 Readings in French Literature** (4 hours)
    - **FRN 416 Studies in French Linguistics** (3 hours)
    - **FRN 491 Senior Honors Project** (3 hours)
    - **FRN 393** or **FRN 493 Special Topics in French** (1-4 hours)
      or other course(s) not selected above in Core A or Core B

- **Concentration in Spanish** (46 hours)
    - Select from below or begin at placement level
        - **SPN 101 Spanish I** *and/or* **SPN 102 Spanish II** *or* **SPN 111 First Year Review** (0-10 hours)
    - Core A: Composition and Conversation. Select at least 8-12 hours from following, with no more than 4 hours at 200 level. Students beginning at 300 level should select 8 hours
        - **SPN 201 Culture** (4 hours)
        - **SPN 202 Reading and Writing** (4 hours)
        - **SPN 207 Intermediate Commercial Spanish** (4 hours)
        - **SPN 301 Advanced Spanish: Oral Skills Emphasis** (4 hours)
        - **SPN 302 Advanced Spanish: Writing Skills Emphasis** (4 hours)
        - **SPN 303 Advanced Compostion and Conversation for Native Speakers** (4 hours)
        - **SPN 393 Special Topics in Spanish** (1-4 hours)
        - **SPN 402 Advanced Grammar and Stylistics** (3 hours)
    - Core B: Distribution Requirements
        - **SPN 315 Introduction to Spanish Linguistics** (4 hours)
        - **SPN 345 Spanish Civilization** *or*
          SPN 346 Latin American Civilization (4 hours)
        - **SPN 371 Introduction to Spanish Literature** *or* **SPN 372 Introduction to Spanish American Literature** (4 hours)
    - Core C: Electives. Select from list below to total 46 hours in major; at least 8 hours of total must be at 400 level
        - **SPN 202 Reading and Writing** (4 hours)
        - **SPN 205 Intermediate Spanish Studies** (4 hours)
        - **SPN 240/340/440** Field Study (1-6 hours)
        - **SPN 241/341/441 Spanish Field Study** (1-6 hours)
        - **SPN 293/393/493 Special Topics in Spanish** (1-4 hours)
        - **SPN 301 Advanced Spanish: Oral Skills Emphasis** (4 hours)
        - **SPN 302 Advanced Spanish: Writing Skills Emphasis** (4 hours)
        - **SPN 303 Advanced Compostion and Conversation for Native Speakers** (4 hours)
        - **SPN 345 Spanish Civilization** (4 hours)
        - **SPN 346 Latin American Civilization** (4 hours)
        - **SPN 365 Readings in Hispanic Literature** (4 hours)
        - **SPN 371 Introduction to Spanish Literature** (4 hours)
        - **SPN 372 Introduction to Spanish American Literature** (4 hours)
        - **SPN 402 Advanced Grammar and Stylistics** (3 hours)
        - **SPN 416 Studies in Spanish Linguistics** (3 hours)
        - **SPN 417 History of Spanish** (3 hours)
        - **SPN 445 Studies in Spanish Civilization** (3 hours)
        - **SPN 446 Studies in Spanish American Civilization** (3 hours)
        - **SPN 483 Studies in Spanish Literature** (3 hours)
        - **SPN 484 Studies in Spanish American Literature** (3 hours)
        - **SPN 491 Senior Honors Project** (3 hours)

Multi-Age Licensure in Music Education, Grades PreK to 12

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About Multi-Age Licensure

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

Due to the limited number of education courses, a minor in music education is not available.

Requirements

(103 hours)

1. **General Education**
   (10 hours): Complete the General Education Requirements for selected major, including specific courses noted below:
   - **PSY 220 Developmental Psychology** (3 hours)
   - **PSY 221 Adolescent Psychology** (3 hours)
   - **EDC 300 Diversity in Educational Settings** (3 hours)
   - **HPR 101 Wellness as a Lifestyle** (1 hour)
2. **Professional Education** (40 hours)
   - Curriculum and Methods
     - **EDL 305 Content Area Literacy** (3 hours)
     - **ESE 404 Teaching Students of Varying Abilities** (3 hours)
   - Music Education and Field Experiences
     - **MUS 205 Orientation to Music Education** (1 hour)
     - **MUS 351 Teaching String Instruments** (2 hours)
     - **MUS 352 Teaching Woodwind Instruments** (2 hours)
     - **MUS 353 Teaching Brass Instruments** (2 hours)
     - **MUS 354 Teaching Percussion Instruments** (2 hours)
     - **MUS 355 Teaching Vocal/Choral Music** (2 hours)
     - **MUS 444 Elementary Music Curriculum and Methods** (3 hours)
     - **MUS 445 Secondary Music Curriculum and Methods** (3 hours)
     - **MUS 446 Instrumental Methods** (3 hours)
     - **MUS 454 Elementary Music Field Experience** (1 hour)
     - **MUS 455 Secondary Music Field Experience** (1 hour)
   - Culminating Experiences (taken concurrently)
     - **EDB 400 Classroom Assessment** (2 hours)
     - **EST 485 Multi-Age Student Teaching in Music** (10 hours)
3. **Major Field** (53 hours)
   - **MUA Applied Music Lessons** (7 semesters; 7 hours minimum)
   - **MUS Ensembles** (7 semesters; 9 hours minimum)
   - **MUA 102 Keyboard Skills I** (2 hours)
   - **MUA 103 Keyboard Skills II** (2 hours)
   - **MUS 112 Macromusic** (2 hours)
   - **MUS 113 Writing about Music** (2 hours)
   - **MUS 231**-**234 Harmony and Form I, II, III, & IV** (12 hours)
   - **MUS 241**-**244 Musicianship** I-IV (4 hours)
   - **MUS 411**/**412 Music History I and II** (6 hours)
   - **MUS 414 Ethnomusicology** (3 hours)
   - **MUS 461 Conducting School Ensemble** (3 hours)
   - **MUS 481 Half Recital** (1 hour)

Multi-Age Licensure in Visual Arts Education, Grades PreK to 12

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About Multi-Age Licensure

Multi-Age license, valid for teaching learners from ages 3-21 and grades Pre-Kindergarten-12 in the curriculum areas named in such license. Preparation in the teaching field shall constitute at least an academic major or its equivalent with sufficient advanced course work in all areas to be taught.

Requirements

(106 hours)

1. **General Education**
   (7 hours): Complete the General Education Requirements for selected major, including specific courses noted below:
   - **PSY 220 Child Development** (3 hours) *or*
     PSY 221 Adolescent Psychology (3 hours)
   - **EDC 300 Diversity in Educational Settings** (3 hours)
   - **HPR 101 Wellness as a Lifestyle** (1 hour)
2. **Professional Education** (39 hours)
   - **EDB 200 Teaching as a Profession** (2 hours)
   - **EDB 300 Educational Technology** (2 hours)
   - **EDB 301 Social Foundations of Education** (3 hours)
   - **EDB 302 Psychological Foundations of Education** (3 hours)
   - **EDB 305 Teaching and Management in the Secondary School** (3 hours)
   - **EDB 400 Classroom Assessment** (2 hours)
   - **EDC 310 Elementary Methods for the Art Specialist** (4 hours)
   - **EDC 311 Secondary Methods for the Art Specialist** (4 hours)
   - **EDL 305 Content Area Literacy** (3 hours)
   - **ESE 404 Teaching Students of Varying Abilities** (3 hours)
   - **EST 486 Multi-Age Student Teaching** (10 hours)
3. **Art Education (60 hours)**
   - **ART 102 Introduction to Two-Dimensional Art/Design** (4 hours)
   - **ART 103 Introduction to Three-Dimensional Art/Design** (4 hours)
   - **ART 211 Drawing I** (4 hours)
   - **ART 221 Painting I** (4 hours)
   - **ART 231 Printmaking I** (4 hours)
   - **ART 226 Sculpture I** *or*
     ART 246 Ceramics I (4 hours)
   - **ART 242 Introduction to Typographic Principles** (4 hours) *or*
     ART 244 Introduction to Macintosh (4 hours)
   - **ART 252 Introduction to Early Western Art** (4 hours)
   - **ART 253 Introduction to Western Art since 1400** (4 hours)
   - **ART 281 Far Eastern Art** *or*
     ART 286 African Art (4 hours)
   - Completion of one studio sequence
     - ART 3__ _____ (4 hours)
     - ART 4__ _____ (4 hours)
   - **ART 341 Valuing Processes In Visual Art** (4 hours)
   - **ART 441 Art in Social and Vocational Contexts** (4 hours)
   - ART 3/4__ Elective in Art History (4 hours)

Adolescent and Young Adult Licensure

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- Major Fields for Licensure:
    - **Integrated Language Arts Education**
    - **Integrated Mathematics Education**
    - **Integrated Social Studies Education**
    - **Integrated Science Education**
        - **Geology Major**
        - **Biology Major**
        - **Chemistry Major**
        - **Physics Major**
    - **Dual Field Physical Sciences**
        - **Chemistry Concentration**
        - **Physics Concentration**
    - **Single Field Sciences**
        - **Earth Science**
        - **Life Science**
        - **Chemistry**
        - **Physics**
- **College Graduates see Post-Baccalaureate program information**
- **EDS Courses**
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Adolescent and Young Adult Licensure At-a-Glance

Degree Granted:
Upper-division undergraduates at Cleveland State University who wish to obtain an Adolescent/Young Adult license are expected to enroll in the college of their academic major and minor in Education. This dual enrollment is necessary to ensure fulfillment of the requirements of the academic major and the requirements of the teacher preparation program. Students follow the degree requirements of their college (the College of Science or the College of Liberal Arts and Social Sciences) and receive their baccalaureate degree from that college. Upon completion of all degree and licensure requirements, a minor in education is posted on student transcripts. The College of Education and Human Services may also recommend the granting of adolescent/young adult teaching license in a field other than the student's major to a person who has met the college and state requirements for such a credential.

Specialization Options:
Adolescent/Young Adult Education: earth science, life science, chemistry, physics, dual field physical science (chemistry and physics), integrated science, integrated mathematics, integrated language arts, and integrated social studies.

Minimum Hours Required for the Education Minor: Integrated language arts, Grades 7-12: 41 hours; integrated mathematics education, Grades 7-12: 38 hours; integrated social studies education, Grades 7-12: 38 hours; science education, Grades 7-12 (all fields): 38 hours.

Teaching Credential:
An Ohio two-year provisional adolescent/young adult (ages 12 through 21 and grades 7-12) teaching license will be awarded upon successful completion of an appropriate degree program in the College of Science or the College of Liberal Arts and Social Sciences and the total professional education sequence or minor in education. (**Note:** In some instances, course work beyond the degree requirements of the student's college may be needed to obtain licensure.) In meeting these requirements course work taken at Cleveland State University may be combined with transfer hours from other accredited institutions. In all cases, however, students must complete their student-teaching experience and take at least two courses in their major teaching field and two education courses at Cleveland State. Eligibility for licensure further requires minimal attainment of 2.75 grade-point average in the professional education sequence and a grade-point average of 2.50 or better in all completed course work in the major teaching field. Finally, as mandated by the State Board of Education, candidates for licensure must take and pass all applicable PRAXIS II examinations.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook

available at:

http://www.csuohio.edu/coehs/students/portfolios/

Accreditation:
Having met current curriculum guidelines set by appropriate learned societies (including the National Council for the Social Studies, the National Council of Teachers of English, the National Council of Teachers of Mathematics, and the National Science Teachers Association), the College of Education and Human Services and its adolescent/young adult licensure programs are accredited by the National Council for Accreditation of Teacher Education.

Admission to Minor:
To be accepted into an adolescent/young adult license program, undergraduates in other colleges of Cleveland State University must apply to the College of Education and Human Services Advising Office at least two full terms prior to the start of taking professional education course work at the 300 level and above. Declaration of a minor in education is required, as well as: a 2.50 cumulative grade-point average; grade of C or better on a college-level English composition course; grade of C or better on a college-level mathematics course; an intake interview; and verification of good moral character.

Advising:
Admission and program guidelines may be secured from the College Advising Office, Rhodes Tower Room 1401, (216) 687-4625. Continuing academic, personal, and professional advising is available from assigned faculty advisers and the College Advising Office. Most students will also have an adviser in their major field.

Evening Program:
No evening program is offered as students must be available for field placements in area schools during the day; however, those classes that do not require fieldwork are frequently offered in the evenings.

Department Office: Teacher Education; 1319 Rhodes Tower, (216) 687-4600. Available programs in secondary education are intended to prepare candidates for teaching adolescents from ages 12 through 21. Taken as a whole, these programs focus on the nature and needs of young adults as they particularly relate to the design, delivery, and evaluation of culturally and developmentally responsive instruction. Throughout each program, the acquisition of professional knowledge and skills is aided by reflective practice and inquiry. To that end, the observation of secondary school students and settings accompanies relevant study, is followed by on-site practice, and culminates in supervised student teaching. In addition, these programs provide for discipline-specific preparation in one of four integrated teaching fields (language arts, mathematics, science, and social studies) or one of six dual or single field science areas (chemistry concentration, physics concentration, earth science, life science, chemistry, physics).

Requirements

Required Courses:

A. General Education Requirements

Course work in this area will total 42 to 63 hours. Because in some instances the successful completion of an academic major in the preferred teaching field may be insufficient to satisfy all content area or disciplinary requirements for teacher licensure, students are strongly urged to consult with an adviser in the College Advising Office, 1401 Rhodes Tower, (216) 687-4625, when selecting courses to fulfill General Education Requirements.

1. *Writing*
    - **ENG 101 English I** (4 hours)
    - **ENG 102 English II or its equivalent** (2 to 3 hours)

    Note: The three-course Writing-Across-the-Curriculum requirement will be met by **EDB 301**, **EDB 302**, **EDS 313**, and/or **ESE 400**.
2. *Mathematics and Logic*
    - Select two approved courses (6 to 8 hours)
3. *Arts and Humanities*
    - Select three approved courses from at least two different departments (9 to 12 hours)
4. *Western Culture and Civilization*
    - One course from approved list; selected offering may also be used to satisfy the Arts and Humanities or Social Sciences requirement (0 to 4 hours)
5. *Nonwestern Culture and Civilization*
    - One course from approved list; selected offering may also be used to satisfy the Arts and Humanities or Social Sciences requirement (0 to 4 hours)
6. *Social Sciences*
    - **PSY 221 Adolescent Psychology** (3 hours)
    - Select two additional courses from approved list; may not be an offering of the Psychology Department (3 to 4 hours)
7. *Natural Sciences*
    - Select two or three courses from approved list to include at least one offering with a laboratory component (8 to 9 hours)
8. *Human Diversity*
    - **EDC 300 Diversity in Educational Settings** (3 hours)
9. *African-American Experience*
    - One course from approved list; selected offering may also be used to satisfy the Arts and Humanities or Social Sciences requirement (0 to 4 hours)

10. *Wellness*
    - **HPR 101 Wellness as a Lifestyle** (1 hour)

B. Professional Education Requirements

Course work in education and related professional experiences are included in this area for a total of 38 to 41 hours depending on teaching field. Because certain courses in these sequences must be taken concurrently or in a prescribed order, students are strongly advised to seek assistance from the College's Advising Office, RT 1401, before registering for classes.

1. *Group A - Foundations*
    - **EDB 200 Teaching as a Profession** (2 hours)
    - **EDB 300 Educational Technology** (2 hours)
    - **EDB 301 Social Foundations of Education** (3 hours)
    - **EDB 302 Psychological Foundations of Education** (3 hours)
2. *Group B - Curriculum & Methods*
    - **EDB 305 Teaching and Management in the Secondary School** (3 hours)
    - **EDL 305 Content Area Literacy** (3 hours)
    - **EDL 313 Literature-Based Reading Methods for Adolescents** (Required for Language Arts Majors only) (3 hours)
    - **EDS 313 Secondary Language Arts Instruction and Assessment** or
      EDS 315 Secondary Mathematics Instruction and Assessment or
      EDS 316 Secondary Social Studies Instruction and Assessment or
      EDS 317 Secondary Science Instruction and Assessment (4 hours)
    - **EST 379**, **380**, **381** or **382** Practicum in Secondary Education English, Math, Social Studies, or Science (3 hours)
    - **ESE 404 Teaching Students of Varying Abilities** (3 hours)
3. *Culminating Experiences*
    - **EDB 400 Classroom Assessment** (2 hours)
    - **EST 489**, **490**, **491**, or **492**
      Student Teaching in Secondary Education English, Math, Social Studies, or Science (10 hours)

C. Major-Field Requirements

In many instances, successful completion of an academic major in the preferred teaching field at Cleveland State University will satisfy content area or disciplinary requirements for adolescent/young adult licensure. However, as outlined below, this is not always the case. Consequently, students are strongly encouraged to consult with an adviser in the College of Education and Human Services' Advising Office, RT 1401, to ensure that all such requirements are met.

- **Integrated Language Arts Education**
- **Integrated Mathematics Education**
- **Integrated Social Studies Education**
- **Integrated Science Education**
    - **Geology Major**
    - **Biology Major**
    - **Chemistry Major**
    - **Physics Major**
- **Dual Field Physical Sciences**
    - **Chemistry Concentration**
    - **Physics Concentration**
- **Single Field Sciences**
    - **Earth Science**
    - **Life Science**
    - **Chemistry**
    - **Physics**

1. *Integrated Language Arts Education, Grades 7 to 12* (48 hours)

- Sophomore Prerequisites
    - **ENG 240 Poetry** (4 hours)
    - **ENG 241 Fiction and Drama** (4 hours)
- Major-Field Requirements (note: major-field requirements for teaching licenses do not always match major requirements for a bachelor's degree)
    - **COM 101 Principles of Communication** (4 hours)
    - **COM 226 Mass Media and Society** (4 hours) or **COM 231 Evolution of Mass Media** (4 hours)
    - **ENG 308 Composition Theory for Teachers** (4 hours)
    - **ENG 310 Traditional Grammar** (requirement can be fulfilled by passing departmental exam) (4 hours)

- **ENG 315 Introduction to the English Language** (4 hours)
- **ENG 321 British Literature I** (4 hours)
- **ENG 322 British Literature II** (4 hours)
- **ENG 342 Survey of American Literature** (4 hours)
- **ENG 382 Canonicity** (4 hours)
- **ENG 495 Senior Seminar** (Capstone Course) (4 hours)

2. *Integrated Mathematics Education, Grades 7 to 12* (46 hours)

- **MTH 181 Calculus I** (4 hours)
- **MTH 182 Calculus II** (4 hours)
- **MTH 220 Introduction to Discrete Mathematics** (4 hours)
- **MTH 286 Intro to Differential Equations** (4 hours)
- **MTH 288 Linear Algebra** (4 hours)
- **MTH 301 Intro to Applied Mathematics** (4 hours)
- **MTH 323 Statistical Methods** (4 hours)
- **MTH 333 Geometry** (4 hours)
- **MTH 358 Abstract Algebra** (4 hours)
- **MTH 401 Mathematical Modeling** (4 hours)
- **MTH 495 Senior Seminar** (2 hours)
- Select one of the following courses:
  - **MTH 420 Combinatorial Math** (4 hours)
  - **MTH 424 Probability Theory and Applications** (4 hours)
  - **MTH 434 Differential Geometry** (4 hours)
  - **MTH 487 Dynamical Systems** (4 hours)
  - **MTH 497 Readings in Math** (4 hours)

3. *Integrated Social Studies Education, Grades 7 to 12* (75 to 86 hours)

History Core (40 hours)

- Core I: History
  - **HIS 101 Western Civilization I** (4 hours) or **HIS 102 Western Civilization II** (4 hours)
  - **HIS 111 US History to 1877** (4 hours)
  - **HIS 112 US History since 1877** (4 hours)
  - **HIS 165 Introduction to Latin American History** (4 hours) or **HIS 175 Introduction to African History** (4 hours)
  - **HIS 200 Introduction to Geography** (4 hours)
  - **HIS 215 History of African Americans to 1877** (4 hours) or **HIS 216 History of African Americans since 1877** (4 hours)
  - **HIS 301 American Cultural History** (4 hours) or **HIS 304 U.S. Urban History** (4 hours)
  - **HIS 370 World History** (4 hours)
  - **HIS 390 Introduction to Social Studies** (4 hours)
  - **HIS 400 Local History Seminar** (4 hours)

Social Studies Core (21 to 22 hours)

- Core II: Required Social Studies Courses
  - **ECN 201 Principles of Macroeconomics** (3 hours)
  - **ECN 202 Principles of Microeconomics** (3 hours)
  - **PSC 111 American Government** (4 hours)
  - **PSC 221 Comparative Politics** (4 hours) or **PSC 231 International Politics** (4 hours)
  - **PSC/HIS/ANT 227 Power, Authority, and Society in Nonwestern Communities** (4 hours)
  - **ANT 102 The Study of Culture** (4 hours) or **HIS 323 Recent American History** (4 hours) or **SOC 101 Introduction to Sociology** (3 hours)

Concentration Core (14 to 24 hours)

- Core III: Concentration (Select 1 of 3 areas below)
  (At least one course must be included from Anthropology and Sociology unless taken as a required course above)

A. Anthropology Concentration
  - Two of the following:
    - **ANT 270 African-American Culture** (4 hours)
    - **ANT 324 Anthropology of Gender** (4 hours)

        - **ANT 351 Native North Americans** (4 hours)
    - Two of the following:
        - **ANT 352 Native South Americans** (4 hours)
        - **ANT 353 Cultures of Africa** (4 hours)
        - **ANT 354 Cultures of Oceania** (4 hours)
        - **ANT 394 Area Studies in Anthropology** (4 hours)

B. Political Science Concentration
    - **PSC 217 Urban Politics & the African-American Experience** (3 hours) or **PSC 305 Cultural Diversity in US Politics** (4 hours)
    - **PSC 318 The Presidency and Congress** (4 hours) or **PSC 342 American Political Thought** (4 hours)
    - Two of the following:
        - **PSC 310 Constitutional Law** (4 hours)
        - **PSC 311 Civil Rights & Civil Liberties** (4 hours)
        - **PSC 314 State Government & Politics** (4 hours)
        - **PSC 315 Public Policy and Administration** (4 hours)
        - **PSC 327 Politics of Peaceful World Change** (4 hours)

C. Sociology Concentration
    - **SOC 101 Introduction to Sociology** (3 hours)
    - **SOC 342 Sociology of Law** (4 hours) *or* **SOC 383 Political Sociology** (4 hours)
    - Two of the following:
        - **SOC 201 Race, Class and Gender** (3 hours)
        - **SOC 203 Sociology of Poverty** (3 hours)
        - **SOC 215 Black/White Interaction** (3 hours)
        - **SOC 317 Sociology of Gender** (4 hours)
        - **SOC 380 Racial and Ethnic Inequality** (4 hours)

4. *Integrated Science Education, Grades 7 to 12* (Includes earth sciences (geology) , biology, chemistry, and physics)

Integrated Science - Geology Major (Earth Science Concentration) (86 to 88 hours)

Required Geology Courses (30 to 32 hours)

- **EVS 206 Introduction to Environmental Science** (4 hours)
- **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)
- **GEO 150 Geological History of the Earth** (4 hours)
- **GEO 230 Natural Resources** (3 hours)
- **GEO 323 Geospatial Concepts and Tools** (3 hours)
- **GEO 490/496/497 Internship/Research Project** (3 hours)
- **UST 289 Physical Geography (3 hours)**
- Select two (2) elective courses in geology (6-8 hours)

Required Biology Courses (16 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202/BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 264 /BIO 265 Introductory Microbiology** and **Lab** (4 hours)
- **BIO 471 Summer Local Flora** (4 hours) **or BIO 473 Spring Local Flora** (4 hours)

Required Chemistry Courses (22 hours)

- **CHM 261/266 General Chemistry I and Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II and Laboratory** (5 hours)
- **CHM 310 /CHM 315 Survey of Analytical Chemistry** and **Lab** (4 hours)
- **CHM 331/336 Organic Chemistry I and Laboratory** (6 hours)
- **CHM 401 Chemical Information** (2 hours)

Required Physics Courses (18 hours)

- **PHY 221 College Physics I** (5 hours)
- **PHY 222 College Physics II** (5 hours)
- **PHY 201 Astronomy: Stars and Galaxies** (4 hours)

- **PHY 202 Astronomy: Planets, Asteroids and Comets** (4 hours)

Integrated Science - Biology Major (93 to 96 Hours)

Required Biology Courses (39 to 42 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202 /BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 300 /BIO 301 Plant Biology** and **Lab** (4 hours)
- **BIO 302 /BIO 303 Animal Biology** and **Lab** (4 hours)
- **BIO 304 /BIO 305 Population Biology and Evolution** and **Lab** (4 hours)
- **BIO 306 Biochemistry and Molecular Biology** (4 hours)
- **BIO 308 /BIO 309 Cell Biology** and **Lab** (4 hours)
- **BIO 416 /BIO 417 Microbiology** and **Lab** (5 hours)
- **BIO 492 Honors Seminar** (1 hour) **or BIO 495 Seminar** (1 hour)
- **ANT 301 Biological Anthropology** (4 hours)
- **And one (1) semester-hour seminar**
  ***or* independent research project**
  ***or* one (1) elective biology course (1-4 hours)**

Required Chemistry Courses (16 hours)

- **CHM 261/266 General Chemistry I and Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II and Laboratory** (5 hours)
- **CHM 331/336 Organic Chemistry I and Laboratory** (6 hours)

Required Earth Science Courses (16 hours)

- **EVS 206 Introduction to Environmental Science** (4 hours)
- **GEO 100 /GEO 101 Introductory Geology** and **Lab** (4 hours)
- **GEO 202/GEO 203 Principles of Paleontology** and **Lab** (5 hours)
- **GEO 230 Natural Resources** (3 hours)

Required Physics Courses (22 hours)

- **PHY 221 College Physics I** (5 hours)
- **PHY 222 College Physics II** (5 hours)
- **PHY 201 Astronomy: Stars and Galaxies** (4 hours)
- **PHY 202 Astronomy: Planets, Asteroids and Comets** (4 hours)
- **PHY 470 Environmental Physics** [Prerequisite: **PHY 221**] (4 hours)

Integrated Science - Chemistry Major (102 to 104 hours)

Required Chemistry Courses (43 hours)

- **CHM 261 /CHM 266 General Chemistry I** and **Lab** (5 hours)
- **CHM 262 /CHM 267 General Chemistry II** and **Lab** (5 hours)
- **CHM 310 /CHM 315 Analytical Chemistry** and **Lab** (4 hours)
- **CHM 320 Survey Physical Chemistry** (4 hours)
- **CHM 331 /CHM 336 Organic Chemistry I** and **Lab** (6 hours)
- **CHM 332 /CHM 337 Organic Chemistry II** and **Lab** (6 hours)
- **CHM 402 Biochemistry** (4 hours)
- **CHM 471 Faculty Colloquium** (1 hour)
- And two elective courses in chemistry (8 hours)

Required Biology Courses (25 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202 /BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 302 /BIO 303 Animal Biology** and **Lab** (4 hours)
- **BIO 308 /BIO 309 Cell Biology** and **Lab** (4 hours)
- **BIO 310/BIO 311 Genetics and Genetics Recitation** (4 hours)
- **BIO 416 /BIO 417 Microbiology** and **Lab** [Prerequisite: **BIO 306**] (5 hours)

Required Earth Science Courses (16 to 18 hours)

- **EVS 206 Introduction to Environmental Science** (4 hours)

- **GEO 100 /GEO 101 Introductory Geology** and **Lab** (4 hours)
- **GEO 150 Geological History of the Earth** (4 hours)
- **UST 289 Physical Geography** (3 hours)
- And one semester-hour of an independent research project
  or one course from the following: (1-3 hours)
    - **GEO 210 The Earth and Human Affairs** (3 hours)
    - **GEO 230 Natural Resources** (3 hours)
    - **GEO 358 /GEO 359 Field Geology of the Cleveland Area** and **Lab** (3 hours)
    - **GEO 404 Environmental Science for Teachers** (3 hours)
    - **GEO 408 Environmental Geology for Teachers** (3 hours)

Required Physics Courses (18 hours)

- **PHY 221 College Physics I** (5 hours)
- **PHY 222 College Physics II** (5 hours)
- **PHY 201 Astronomy: Stars and Galaxies** (4 hours)
- **PHY 202 Astronomy: Planets, Asteroids and Comets** (4 hours)

Integrated Science - Physics Major (81 hours)

Required Physics Courses (34 hours)

- **PHY 201 Astronomy: Stars and Galaxies** (4 hours) *and/or*
  PHY 202 Astronomy: Planets, Asteroids, & Comets (4 hours)
- **PHY 243 University Physics I** (5 hours)
- **PHY 244 University Physics II** (5 hours)
- **PHY 330 Introduction to Modern Physics** (4 hours)
- **PHY 474 Thermal Physics** (4 hours)
- And 8 to 12 semester hours of physics electives from the following:
  (Please note if both PHY 201 and PHY 202 are taken, only 8 hours of physics electives are required) (8-12 hours)
    - **PHY 320 Introduction to Computational Physics** (4 hours)
    - **PHY 340 Mechanics and Vibrations** (4 hours)
    - **PHY 350 Electricity and Magnetism** (4 hours)
    - **PHY 360 Electronics Laboratory** (3 hours)
    - **PHY 450 Optics and Electromagnetic** (4 hours)

Required Chemistry Courses (16 hours)

- **CHM 261/266 General Chemistry I** and **Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II** and **Laboratory** (5 hours)
- **CHM 331/336 Organic Chemistry I** and **Laboratory** (6 hours)

Required Earth Science Courses (15 hours)

- **EVS 206 Introduction to Environmental Science** (4 hours)
- **GEO 100 /GEO 101 Introductory Geology** and **Lab** (4 hours)
- **GEO 150 Geological History of the Earth** (4 hours)
- **GEO 230 Natural Resources** (3 hours)

Required Biology Courses (16 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202 /BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 264 /BIO 265 Introductory Microbiology** and **Lab** (4 hours)
- And one (1) course from the following: (4 hours)
    - **BIO 300 /BIO 301 Plant Biology** and **Lab** (4 hours)
    - **BIO 302 /BIO 303 Animal Biology** and **Lab** (4 hours)
    - **BIO 304 /BIO 305 Population Biology and Evolution** and **Lab** (4 hours)
    - **BIO 308 /BIO 309 Cell Biology** and **Lab** (4 hours)

Licensure programs are also available in the dual fields of physics and chemistry and in the single fields of physics, chemistry, life science and earth science. Information about program requirements is available in the College Advising Office, RT 1401, (216) 687-4625.

5. *Physical Science Education (Chemistry and Physics), Grades 7 to 12*

Physical Science - Chemistry Concentration) (83 hours)

Required Chemistry Courses (44 hours)

- **CHM 261 /CHM 266 General Chemistry I** and **Lab** (5 hours)
- **CHM 262 /CHM 267 General Chemistry II** and **Lab** (5 hours)
- **CHM 310 /CHM 315 Analytical Chemistry** and **Lab** (4 hours)
- **CHM 320 Survey Physical Chemistry** (4 hours)
- **CHM 331 /CHM 336 Organic Chemistry I** and **Lab** (6 hours)
- **CHM 332 /CHM 337 Organic Chemistry II** and **Lab** (6 hours)
- **CHM 402 Biochemistry** (4 hours)
- **CHM 404/CHM 406 Environmental Chemistry** and **Lab** (5 hours)
- **CHM 471 Faculty Colloquium** (1 hour)
- And one elective courses in chemistry (4 hours)

Required Biology Courses (8 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202/BIO 203 Introductory Biology II** and **Lab** (4 hours)

Required Earth Sciences Courses (4 hours)

- **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)

Required Physics Courses (27 hours)

- **PHY 200 Astronomy Laboratory** (1 hour)
- **PHY 201 Astronomy: Stars and Galaxies** *or*
  PHY 202 Astronomy: Planets, Asteroids and Comets (4 hours)
- **PHY 243 University Physics I** (5 hours)
- **PHY 244 University Physics II** (5 hours)
- **PHY 330 Introduction to Modern Physics** (4 hours)
- **PHY 470 Environmental Physics** (4 hours)
- **PHY 474 Thermal Physics** (4 hours)

Physical Science - Physics Concentration) (74 hours)

Required Physics Courses (34 hours)

- **PHY 243 University Physics I** (5 hours)
- **PHY 244 University Physics II** (5 hours)
- **PHY 330 Introduction to Modern Physics** (4 hours)
- **PHY 470 Environmental Physics** (4 hours)
- **PHY 474 Thermal Physics** (4 hours)
- And 12 semester hours of physics electives from the following:
  - **PHY 200 Astronomy Laboratory** (1 hour)
  - **PHY 201 Astronomy: Stars and Galaxies** (4 hours)
  - **PHY 202 Astronomy: Planets, Asteroids, & Comets** (4 hours)
  - **PHY 320 Introduction to Computational Physics** (4 hours)
  - **PHY 340 Mechanics and Vibrations** (4 hours)
  - **PHY 350 Electricity and Magnetism** (4 hours)
  - **PHY 360 Electronics Laboratory** (3 hours)
  - **PHY 450 Optics and Electromagnetic** (4 hours)

Required Chemistry Courses (24 hours)

- **CHM 261/266 General Chemistry I and Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II and Laboratory** (5 hours)
- **CHM 310 /CHM 315 Survey of Analytical Chemistry** and **Lab** (4 hours)
- **CHM 320 Survey of Physical Chemistry** (4 hours)
- **CHM 331/336 Organic Chemistry I and Laboratory** (6 hours)

Required Earth Sciences Courses (4 hours)

- **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)

Required Biology Courses (8 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202/BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 306 Biochemistry and Molecular Biology** (4 hours)

6. *Single Fields in Science Education Grades 7 to 12*

Single Field - Earth Science (71 hours)

Required Geology Courses (34 hours)

- **EVS 206 Introduction to Environmental Science** (4 hours)
- **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)
- **GEO 202/GEO 203 Principles of Paleontology** and **Lab** (5 hours)
- **GEO 230 Natural Resources** (3 hours)
- **GEO 323 Geospatial Concepts and Tools** (3 hours)
- **GEO 490/496/497 Internship/Research Project** (3 hours)
- **UST 289 Physical Geography (3 hours)**
- And three elective courses in geology (12 hours)

Required Biology Courses (8 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202/BIO 203 Introductory Biology II** and **Lab** (4 hours)

Required Chemistry Courses (10 hours)

- **CHM 261/266 General Chemistry I and Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II and Laboratory** (5 hours)

Required Physics Courses (19 hours)

- **PHY 200 Astronomy Laboratory** (1 hour)
- **PHY 201 Astronomy: Stars and Galaxies** (4 hours)
- **PHY 202 Astronomy: Planets, Asteroids and Comets** (4 hours)
- **PHY 221 College Physics I** (5 hours)
- **PHY 222 College Physics II** (5 hours)

Single Field - Life Science (69-72 hours)

Required Biology Courses (39 to 42 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202 /BIO 203 Introductory Biology II** and **Lab** (4 hours)
- **BIO 300 /BIO 301 Plant Biology** and **Lab** (4 hours)
- **BIO 302 /BIO 303 Animal Biology** and **Lab** (4 hours)
- **BIO 304 /BIO 305 Population Biology and Evolution** and **Lab** (4 hours)
- **BIO 306 Biochemistry and Molecular Biology** (4 hours)
- **BIO 308 /BIO 309 Cell Biology** and **Lab** (4 hours)
- **BIO 310 /311 Genetics** and **Genetics Recitation** (4 hours)
- **BIO 416 /BIO 417 Microbiology** and **Lab** (5 hours)
- **BIO 492 Honors Seminar** (1 hour) **or BIO 495 Seminar** (1 hour)
- And one (1) semester-hour seminar
  or independent research project
  or one (1) elective biology course (1-4 hours)

Required Chemistry Courses (16 hours)

- **CHM 261/266 General Chemistry I and Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II and Laboratory** (5 hours)
- **CHM 331/336 Organic Chemistry I and Laboratory** (6 hours)

Required Earth Science Courses (4 hours)

- **GEO 100 /GEO 101 Introductory Geology** and **Lab** (4 hours)

Required Physics Courses (10 hours)

- **PHY 221 College Physics I** (5 hours)

- **PHY 222 College Physics II** (5 hours)

Single Field - Chemistry (81 hours)

Required Chemistry Courses (44 hours)

- **CHM 261 /CHM 266 General Chemistry I** and **Lab** (5 hours)
- **CHM 262 /CHM 267 General Chemistry II** and **Lab** (5 hours)
- **CHM 310 /CHM 315 Analytical Chemistry** and **Lab** (4 hours)
- **CHM 320 Survey Physical Chemistry** (4 hours)
- **CHM 331 /CHM 336 Organic Chemistry I** and **Lab** (6 hours)
- **CHM 332 /CHM 337 Organic Chemistry II** and **Lab** (6 hours)
- **CHM 402 Biochemistry** (4 hours)
- **CHM 404/CHM 406 Environmental Chemistry** and **Lab** (5 hours)
- **CHM 471 Faculty Colloquium** (1 hour)
- And one elective courses in chemistry (4 hours)

Required Physics Courses (10 hours)

- **PHY 221 College Physics I** (5 hours)
- **PHY 222 College Physics II** (5 hours)

Required Earth Sciences Courses (4 hours)

- **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)

Required Biology Courses (8 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202/BIO 203 Introductory Biology II** and **Lab** (4 hours)

Required Electives (15 hours)

- An additional 15 semester hours of elective credit in either Biology or Chemistry at the 300 or 400 level are required. Electives are to meet general requirements for BS degree.

Single Field - Physics (56 hours)

Required Physics Courses (34 hours)

- **PHY 243 University Physics I** (5 hours)
- **PHY 244 University Physics II** (5 hours)
- **PHY 330 Introduction to Modern Physics** (4 hours)
- **PHY 470 Environmental Physics** (4 hours)
- **PHY 474 Thermal Physics** (4 hours)
- And 12 credit hours of electives in physics (12 hours)

Required Chemistry Courses (10 hours)

- **CHM 261/266 General Chemistry I** and **Laboratory** (5 hours)
- **CHM 262/267 General Chemistry II** and **Laboratory** (5 hours)

Required Biology Courses (8 hours)

- **BIO 200 /BIO 201 Introductory Biology I** and **Lab** (4 hours)
- **BIO 202 /BIO 203 Introductory Biology II** and **Lab** (4 hours)

Required Earth Science Courses (4 hours)

- **GEO 100 /GEO 101 Introductory Geology** and **Lab** (4 hours)

Upper Division Honors Program - Teaching Licensure

On this page:

- **Back to College**
- **Program Objectives**
- **Admission to the Program**
- **Advising**
- **Program Requirements**
- **Go to College of Education and Human Services Web Site**

Program Objectives

The Education Honors Program is intended to achieve the following objectives:

- Encourage academically talented students to pursue teaching as a profession
- Demand rigorous academic written work from honors students, including a capstone action research project during the final two semesters of the licensure program
- Support reflective professional practice
- Enhance existing educational coursework by developing opportunities for independent research and/or involvement in faculty research
- Foster close relationships between an honors faculty adviser and honors students

Admission to the Program

The Education Honors program is open to all honors students in good standing in the CSU Honors Program or students admitted to the University Honors Program as juniors with an interest in pursuing teaching as a career.

Advising

A COEHS Honors Liaison, designated by the Associate Dean of Student and Alumni Services and External Relations, will meet with each student admitted to the education honors program to identify an honors adviser (also a full-time tenure track faculty member with graduate faculty status) appropriate for the student's intended licensure program. The honors adviser will meet with the honors student to select and develop contract course proposals and to identify a faculty member for an honors research project. As a result of close interaction with and supervision of the honors student, the honors adviser will be able to write a detailed letter of recommendation reflecting the student's achievements. In addition, the adviser will assist wherever possible in helping the honors student pursue appropriate employment opportunities after graduation.

Program Requirements

The College Honors Program requires that students complete at least 12 credits of honors work as follows:

1. Honors Experiences (9 credits). Each honors student will work with an adviser to select a minimum 9 credit hours of Honors experiences. These can include any combination of the following:
    a. Contract Course: Any 300-level or 400-level college course taught by a full-time faculty member can be modified to become an honors course. The student, with the adviser's assistance, will draw up a proposal for increasing the rigor of a course. Course proposals should be approved by the course instructor, honors adviser, and college Honors Liaison.
    b. Graduate Course: Students taking cross-listed classes can complete 500-level requirements for honors credit.
    c. Honors Research: This is research conducted jointly with a full-time faculty member, which may include the honors adviser. Students register for **EDB 451—Individual Projects in Education**, 1-4 credits. Course can be repeated for credit. At least 2 credits of this experience are recommended to help students prepare for the Action Research Project during the final two semesters. Students may submit proposals to present their work at regional and national research conferences.
2. Action Research Capstone Project (3 credits). Each honors student will complete an action research project investigating classroom practices, proposing a plan of action, and evaluating and reporting on intervention. The summer prior to practicum, honors students will generate 2-3 potential topics with the assistance of their honors adviser. During practicum, students will select a topic, design a study, pilot and revise their project methodology. During student teaching, students will register for **EDB 495 Seminar on Classroom Inquiry**. They will implement their proposed plan of action and write up its outcome by the end of student teaching. The project must be presented to a committee including the mentor teacher, honors adviser, student teaching supervisor (if the honors adviser is not the supervisor), and the Honors Liaison.
3. Honors Requirement for Student Teaching. In addition to the written requirements, education honors students must demonstrate exceptional teaching practice. Honors students will be supervised by their honors adviser. Documentation of teaching practice must include "outstanding" (3.5-4.0) evaluations from both the honors student's mentor teacher(s) and supervisor. Such evaluations are required for eligibility for the "University Honors" distinction to be posted on the student's diploma and transcript but are not required to receive a passing grade in student teaching.

Post-Baccalaureate Teacher Preparation Programs

On this page:

- **Back to College**
- **Introduction**
- Licensure Programs
    - **Early Childhood**
    - **Middle Childhood**
    - **Adolescent and Young Adult or Multi-Age**
- **Endorsement Programs for Practicing Teachers**
    - **Teaching English to Speakers of Other Languages**
- **Go to College of Education & Human Services website**

Introduction

The College of Education and Human Services offers a variety of teacher preparation programs for individuals who have earned bachelor's degrees and who have had little or no professional training in education. While these programs lead to licensure, most of the course work they require cannot be applied to a graduate degree. All post-baccalaureate students seeking teacher licensure must fully meet the college's admission requirements and professional standards **as outlined earlier in this chapter**. Moreover, students must be available for fieldwork in area schools during the day and are urged to carefully plan their program of study since they must apply for practicum and student teaching placements two semesters in advance of registration for these experiences. An individual appointment with an adviser in the College of Education and Human Services Advising Office is required prior to acceptance into any of the post-baccalaureate programs described below. During the appointment, the adviser will provide a personalized assessment of required course work. Upon program completion, students are also invited to make use of the **University's Career Services Center** for help in obtaining employment.

College Graduates Seeking Early Childhood Licensure

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- **Requirements**
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- **Go to Department of Teacher Education Web Site**

Early Childhood Licensure
Introduction

As outlined below, the post-baccalaureate licensure program in early childhood education consists of three components: general education requirements, prerequisites to the professional education sequence, and professional education requirements. The program is designed to prepare college graduates of 4-year institutions with little or no formal course work in education for teaching children ages 3 to 8 (grades pre-k to 3), including youngsters with special learning needs. Graduates of highly specialized undergraduate degree programs (such as music, fine arts, and business administration) may need to complete additional general education requirements in order to qualify for early childhood licensure. Without exception, recommendation for provisional licensure further requires the successful completion of any applicable PRAXIS II examinations prescribed by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Requirements

A. General Education Requirements

Course work of at least 30 semester or 45 quarter hours, including offerings in composition, mathematics and logic, arts and humanities, social sciences, and natural sciences.

B. Prerequisites

Equivalent courses taken at other universities may substitute for the following prerequisites pending prior approval of the College of Education and Human Services' Advising Office (RT 1401)

- **ART 252** *or* **ART 253 Introduction to Western Art** (4 hours)
- **EDC 300 Diversity in Educational Settings** (3 hours)
- **MTH 127 Mathematics for Elementary and Middle School Teachers I** (4 hours)
- **MTH 128 Mathematics for Elementary and Middle School Teachers II** (4 hours)
- **MTH 129 Mathematics for Elementary and Middle School Teachers III** (2 hours)
- **PSY 220 Child Development** (3 hours)
- **SPH 229 Speech and Language Development** (3 hours)

C. Professional Education Requirements

Course work in education and related professional experiences are included in this area for a total of 75 hours. Because certain courses in this sequence must be taken concurrently or in a prescribed order, students are strongly advised to seek assistance from the college's Advising Office, RT 1401, before registering for classes.

Foundations

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)
- **ECE 300 Introduction to Early Childhood Education** (3 hours)

Literacy

- **EDL 300 Phonics Assessment and Instruction** (3 hours)
- **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
- **EDL 311 Emergent Literacy** (3 hours)
- **EDL 312 Literature-Based Reading Methods for Children** (3 hours)

Curriculum and Methods

- **ECE 401 Developmental Curriculum for Early Childhood Programs** (4 hours)
- **ECE 402 Teaching Methods in Early Childhood Education** (4 hours)
- **ECE 403 Teaching Young Children with Mild and Moderate Disabilities** (3 hours)

Special Methods

- **ESE 415 Assessing Young Children** (4 hours)
- **ECE 412 Collaboration with Families and Professionals in Early Childhood Settings** (4 hours)
- **ECE 415 Mathematics Instruction in Preschool and the Primary Grades** (3 hours)
- **ECE 416 Social Studies Instruction in Preschool and the Primary Grades** (3 hours)
- **ECE 417 Science Instruction in Preschool and the Primary Grades** (3 hours)
- **EDC 309 Art Methods for the Classroom Teacher** (2 hours)
- **MUS 301 Music Fundamentals and Methods for the Classroom Teacher** (4 hours)
- **PED 316 Health and Physical Education for the Classroom Teacher** (3 hours)

Culminating Experiences

- **EST 370 Practicum in Early Childhood Education** (3 hours)
- **EST 480 Student Teaching in Early Childhood Education** (10 hours)

College Graduates Seeking Middle Childhood Licensure

On this page:

- **Back to Post-Baccalaureate Teacher Preparation Programs**
- **Introduction**
- **Requirements**
- **EDM Courses**
- **Go to Department of Teacher Education Web Site**

Middle Childhood Licensure
Introduction

As outlined below, the post-baccalaureate licensure program in middle childhood education consists of four components: general education requirements, prerequisites to the professional education sequence, professional education requirements, and discipline-specific requirements in two of four teaching fields (reading and language arts, mathematics, science, social studies). The program is designed to prepare college graduates with little or no formal course work in education for teaching children ages 8 to 14 (grades 4 to 9). In addition to needed course work, recommendation for provisional licensure requires the successful completion of any applicable PRAXIS II examinations prescribed by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing their professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and finally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in order to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to access the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Requirements

A. General Education Requirements

Course work of at least 30 semester or 45 quarter hours, including concentrated study of at least two teaching fields that are broad, multidisciplinary, and encompass the major areas in those fields as described in **Section D** below.

B. Prerequisites

Equivalent courses taken at other universities may substitute for the following prerequisites pending prior approval of the College of Education and Human Services' Advising Office, RT 1401.

- **EDC 300 Diversity in Educational Settings** (3 hours)
- **PSY 220 Child Development** (3 hours)
- **PSY 221 Adolescent Psychology** (3 hours)

C. Professional Education Requirements

Course work in education and related professional experiences are included in this area for a total of 44 hours. Because certain courses in this sequence must be taken concurrently and in a prescribed order, students are strongly advised to seek assistance from the College Advising Office before registering for classes.

- **EDB 200 Teaching as a Profession** (2 hours)
- **EDB 300 Educational Technology** (2 hours)
- **EDB 301 Social Foundations of Education** (3 hours)
- **EDB 302 Psychological Foundations of Education** (3 hours)
- **EDB 303 Teaching and Management in the Middle School** (3 hours)
- **EDB 304 History and Philosophy of the Middle School** (1 hour)
- **EDL 300 Phonics Assessment and Instruction** (3 hours)
- **EDL 301 Beginning and Intermediate Reading Instruction and Assessment** (3 hours)
- **EDL 305 Content Area Literacy** (3 hours)
- **EDL 313 Literature-Based Reading Methods for Adolescents** (3 hours)
- **ESE 404 Teaching Students of Varying Abilities** (3 hours)
- **EST 371 Practicum in Middle Childhood Education** (3 hours)
- **EDB 400 Classroom Assessment** (2 hours)
- **EST 481 Student Teaching in Middle Childhood Education** (10 hours)

D. Discipline-Specific or Content Area Requirements

Middle childhood licensure requires concentrated study in at least two of the following multidisciplinary teaching fields: reading and language arts, mathematics, science, and/or social studies. As outlined below, the distributional requirements for these fields include course work from the various disciplines of which they are comprised and may demand further study beyond that completed as an undergraduate. With approval, interdisciplinary courses may be used to fulfill multiple standards. For example, a physical science course

like **EDC 418**
that includes coverage of both chemistry and physics could be used to satisfy the requirement for course work in both disciplines. Similarly, a course in physical geography such as **GEO 209** might be used to meet concentration requirements in both science and social studies.

1. The concentration in **Reading and Language Arts** requires 27 to 28 semester hours of course work distributed over the following major areas of study: advanced composition, linguistics, literature, and speech/communication, theater/drama *and/or* media studies. The following courses or their equivalencies are required:
    - **COM 225 Media Writing** *or* **ENG 304 Creative Writing for Teachers** (4 hours)
    - **COM 242 Public and Professional Speaking** *or* **DRA 225 Principles of Acting** (3 to 4 hours)
    - **EDM 313 Teaching and Assessing Language Arts in the Middle School** (4 hours)
    - **ENG 206 Literature and American Culture** *or* **ENG 342 Survey of American Literature** (4 hours)
    - **ENG 310 Traditional Grammar** *or* **ENG 311 Elements of Linguistics** (4 hours)
    - And two elective literature courses (8 hours)
2. The concentration in **Mathematics**
   requires 24 semester hours of course work well distributed over the following major areas of study: college algebra or calculus, geometry, number systems, and probability and statistics. The following courses or their equivalencies are required:
    - **EDM 315 Teaching and Assessing Mathematics in the Middle School** (4 hours)
    - **MTH 326 Numbers, Patterns and Operations for Middle School Teachers** (4 hours)
    - **MTH 327 Algebra and Functions for Middle School Teachers** (4 hours)
    - **MTH 328 Geometry for Middle School Teachers** (4 hours)
    - **MTH 329 Data Analysis and Probability for Middle School Teachers** (4 hours)
    - **MTH 330 Conversational Calculus for Middle School Teachers** (pre-requisite - MTH 327) (4 hours)
3. The concentration in **Science**
   requires 33 semester hours of course work well distributed over the following major areas of study: the biological or life sciences, chemistry, earth science, environmental science, physics, and space science. The following courses or their equivalencies are required:
    - **BIO 106/BIO 107 Human Biology in Health and Disease** and **Lab** (5 hours)
    - **BIO 380 Biology Content for Middle School Teachers** (5 hours)
    - **CHM 380 Chemistry for Middle School Teachers** (5 hours)
    - **EDM 317 Teaching and Assessing Science in the Middle School** (4 hours)
    - **EVS 380 Earth System Science for Middle School Teachers** (pre-requisites - GEO 100 & GEO 102) (5 hours)
    - **GEO 100/GEO 101 Introductory Geology** and **Lab** (4 hours)
    - **PHY 400 Conceptual Physics for Middle School Teachers** (5 hours)
4. The concentration in **Social Studies**
   requires a minimum of 30 semester hours of course work well distributed over the following major areas of study: economics, geography (physical, cultural, and/or economic), history (world or non-Western, American, and Ohio), and American government. The following courses or their equivalencies are required:
    - **ECN 201 Principles of Macroeconomics** (3 hours)
    - **ECN 202 Principles of Microeconomics** (3 hours)
    - **EDM 316 Teaching and Assessing Social Studies in the Middle School** (4 hours)
    - **HIS 111 United States History to 1877** (4 hours)
    - **HIS 112 United States History since 1877** (4 hours)
    - **HIS 200 Introduction to Geography** (4 hours)
    - **HIS 306 History of Ohio** (4 hours) *or* **HIS 400 Local History Seminar** (4 hours)
    - **PSC 221 Comparative Politics** (4 hours) *or* **PSC 231 International Politics** (4 hours)

College Graduates Seeking Adolescent and Young Adult or Multi-Age Licensure

On this page:

- **Back to Post-Baccalaureate Teacher Preparation Programs**
- **Introduction**
- **Requirements**
- **EDC Courses**
- **EDS Courses**
- **Go to Department of Teacher Education Web Site**

Adolescent and Young Adult or Multi-Age Licensure Introduction

The College of Education and Human Services offers a post-baccalaureate program for co llege graduates seeking secondary licensure to teach the earth sciences, integrated science, integrated language arts, integrated mathematics, integrated social studies, the life sciences, chemistry, physics, or the physical sciences (both chemistry and physics) in grades 7 through 12. Similarly, a post-baccalaureate program exists for college graduates interested in obtaining multi- age licensure to teach physical education, French, Spanish, music, or the visual arts to students ages 3 to 21. As discussed below, these undergraduate-level programs consist of four components: general education requirements, prerequisites to the professional educatio n sequence, professional education requirements, and discipline-specific requirements in the selected teaching field. In addition to needed course work, recommendation for provisional licensure requires the successful completion of any applicable PRAXIS II examinations prescribed by the State Board of Education.

Portfolio:
All teaching license students are expected to maintain a portfolio while completing th eir professional coursework and field experiences. The portfolio will evolve from a working portfolio to a professional portfolio and fin ally to an employment portfolio. In it, students are responsible for housing various required and optional artifacts that demonstrate their level of competency in each of the outcomes of their program.

At various portfolio checkpoints, students must meet specific portfolio criteria in or der to be eligible to continue to the next phase of their program. For complete information on portfolios, students are strongly encouraged to a ccess the Student Portfolio Handbook available at:

http://www.csuohio.edu/coehs/students/portfolios/

Requirements

A. General Education Requirements

Course work of at least 30 semester or 45 quarter hours, including offerings in compos ition, mathematics and logic, arts and humanities, social sciences, and natural sciences.

B. Prerequisites

Equivalent courses taken at other universities may substitute for the following prereq uisites pending prior approval of the College of Education and Human Services' Advising Office, RT 1401.

- **EDC 300 Diversity in Educational Settings** (3 hours)
- **PSY 221 Adolescent Psychology** (3 hours)

C. Professional Education Requirements

Course work in education and related professional experiences are included in this are a for a total of 18 to 42 hours depending on the teaching field. See the earlier sections on **secondary education** and **multi-age licensure** for specific professional education requirements by field or secure a checklist from the College of Education and Human Se rvices' Advising Office, RT 1401.

D. Discipline-Specific or Content Area Requirements

While previous completion of an academic major in the preferred teaching field is ofte n sufficient to meet licensure requirements, this is not always the case. Consequently, students are strongly encouraged to consult with an adviser in the College of Education and Human Services' Advising Office, RT 1401, to ensure that all such requirements are met. The College of Education and Human Services may recommend the granting of a multi-age or adolescent/young adult teaching license in a field other than the student's major to a person who has met the college and state requirements for such a credential.

Endorsement Programs for PracticingTeachers

On this page:

- **Back to Post-Baccalaureate Teacher Preparation Programs**
- **Introduction**
- **Teaching English to Speakers of Other Languages (TESOL) Endorsement**
- **Go to Department of Teacher Education Web Site**

Endorsement Programs for PracticingTeachers Introduction

The College of Education and Human Services can recommend endorsement in the Teaching English to Speakers of Other Languages (TESOL) for candidates who hold an Ohio teaching license or certificate, have completed an approved program of preparation, and have successfully passed any PRAXIS II examinations prescribed by the State Board of Education. (The endorsement is now limited to the age and grade levels listed on the initial license or certificate.)

Teaching English to Speakers of Other Languages (TESOL) Endorsement

Requires a minimum of 21 semester hours of course work as outlined below:

- **EDC 300 Diversity in Educational Settings** (3 hours)
- **EDL 406 Second Language Learning and Pedagogy** (3 hours)
- **EDL 407 TESOL Methods** (3 hours)
- **EST 373 Practicum in TESOL** (3 hours)
- **EDL 408 Applied Linguistics for Teachers** (3 hours)
- **EDL 409 Assessment and Evaluation in the ESL/Bilingual Classroom** (3 hours)
- **EDL 410 Pedagogical Grammar** (3 hours)

Nursing

On this page:

- **Back to College**
- **At-a-Glance**
- **Program Requirements**
- **Courses**
    - **Elective Courses**
    - **Prerequisite Courses for Basic Students**
    - **Prerequisite Courses for R.N. Students**
    - **Support Courses for Basic Students**
    - **Support Courses for R.N. Students**
    - **Nursing Courses for Basic Students**
    - **Nursing Courses for R.N. Students**
- **NUR Courses**
- **Go to School of Nursing Web Site**

Nursing (B.S.N.)
At-a-Glance

Degree granted: Bachelor of Science in Nursing

Admission to major, Basic Track:
Admission is selective and will be granted only after successful completion of prerequisite courses. The application process uses multiple methods to evaluate candidates including, but not limited to, testing, references and interviews. Minimum overall GPA of 2.75 is required in prerequisite courses. Applications for fall semester must be submitted by March 1. Those students with a prerequisite GPA of 3.25 or above may apply for consideration of early admission status. Deadline for receipt of applications for early admission is January 1.

RN to BSN Track:
Two-year program for registered nurses with associate degree or diploma in nursing. Nursing courses for the RN are one day a week except for the last half of spring semester of the senior year. Twelve hours a week for clinical are then required. Part-time program available to all students in major.

Accelerated Track:
Admission is selective and is granted to persons who hold at least a bachelor's degree in a non-nursing field and who have completed the prerequisite courses.

Minimum hours required in the major: 68 hours for basic students, 28 hours for R.N. students

Advising: There is a recruiter/adviser for prospective students; phone 687-3810. Faculty serve as advisers for students in major.

Student organization: Student Nurse Association (SNA)

Membership and Accreditation:
The School of Nursing is a member of the Council of Baccalaureate and Higher Degree Programs and the American Association of Colleges of Nursing.

The School of Nursing offers an undergraduate curriculum in professional nursing leading to the Bachelor of Science in Nursing (B.S.N.). The professional nursing curriculum is approved by the Ohio Board of Nursing, and is accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, DC, 20036-1120.

Overview:
The program is available to men and women who have been admitted to Cleveland State University and the College of Education and Human Services. High-school graduates and licensed practical nurses who fulfill admission requirements are considered for admission to the program. The RN to BSN track is designed for registered nurses. The accelerated track is especially designed for students who already have a bachelor's degree in a non-nursing field. This track, an accelerated option, permits qualified students to take nursing major courses at a fast pace to obtain a second bachelor's degree.

The baccalaureate nursing curriculum includes courses from the liberal arts and sciences and the professional Nursing major. The liberal arts component provides a foundation of knowledge from the natural and behavioral sciences and the humanities. The Nursing major provides students with the opportunity to develop attitudes, values, and skills essential for enacting the practice of professional nursing.

Students develop the ability to use a conceptual framework to implement the nursing process with clients. The baccalaureate nursing program prepares graduates to use critical thinking and therapeutic nursing interventions to provide direct and indirect care to individuals, families, groups, and communities. Clinical experience is provided in a variety of community-based settings: hospitals, ambulatory and long-term care facilities, and community health agencies in the Greater Cleveland area.

The purposes of the program are to prepare graduates for professional nursing practice, for undertaking graduate study in nursing, and for leadership in health care. Graduates are committed to the health and well-being of people and demonstrate respect for their dignity, worth, cultural diversity, and autonomy. The baccalaureate nursing curriculum provides learning opportunities that foster the development of self-direction, creativity, analytical thinking, and discriminative judgment.

Nursing Program Requirements

Pre-Nursing Program for Basic Students

Persons interested in the nursing program must first complete an application to Cleveland State University, listing college choice as Education and Human Services and intended major as Nursing.

Prospective students are required to make an appointment with the school's recruiter/adviser to discuss the nursing program and to plan a course of study. Prerequisite courses may be completed throughout the summer the year admission is sought.*

*Students with a prerequisite GPA of 3.25 or above may apply by January 1 and will be considered for early admission. Such students will be notified of their admission status by the end of February.

Admission to the Nursing Major

Admission to the Nursing major is selective and is granted on a competitive basis. Selection of students for the Nursing major is based on a number of criteria including prerequisite and overall grade-point averages, essays, results on the standardized nursing entrance exam and related health-care experience and interviews. The number of available spaces in the program is limited. Students are notified of their acceptance by the end of the spring semester. Students not admitted may formally reapply to the program for admission in the following year. Students who are accepted and who choose not to enter the program in the year for which they have been accepted will not be deferred to the following year. They must reapply to the program. Prior acceptance does not guarantee acceptance at a later date.

All admission requirements must be completed prior to the beginning of the fall semester to begin the Nursing major. Admission requirements include:

1. Admission to Cleveland State University and the College of Education and Human Services. **Applications are available** through the **Office of Admissions**
   and should be submitted at least one month prior to the program application deadline (March 1).
2. Application for fall-semester admission to the nursing program must be submitted to the School of Nursing by March 1 of that year. Applications are available in the **School of Nursing**.
3. Completion of all prerequisite courses by fall semester with a prerequisite grade-point average of 2.75 or above and at least a C in each prerequisite course. Please note that all former grades earned in prerequisite courses are factored into the prerequisite G.P.A. Students who have more than two failing grades may not meet admission criteria.
4. Successful completion of two of the following science courses by the end of fall semester: **BIO 264/265**, **BIO 266/267**, **BIO 268/269**, **CHM 251/256**, **CHM 252/257**.
5. A cumulative overall grade-point average of 2.50 or above in all course work.
6. Adequate score on the standardized nursing entrance exam.
7. Required meeting with recruiter/adviser.
8. English for Speakers of Other Languages (ESOL): Students who have received their secondary or tertiary education in a language other than English will be required to contact the **English as a Second Language Program** in the Division of Continuing Education and arrange for additional prerequisites that must be completed by the student prior to enrollment in the nursing program.
9. Candidates who have satisfied all other requirements for admission and who are competitively placed for admission will be interviewed.

Transferring From Other Nursing Programs

Students previously enrolled in a nursing program at another institution who are interested in transferring to Cleveland State University should contact the recruiter/adviser to begin a transcript evaluation. Acceptance of transfer students into the university's nursing program depends on the student's profile, prior standing in the previous nursing school, a nursing GPA above 2.5 each term in the nursing major from the previous school, and space availability. The level of the program into which the student transfers (sophomore, junior, or senior) depends on the evaluation of previous nursing course work by the Admission, Progression, and Academic Standard Committee of the School of Nursing.

Students accepted via transfer must complete a minimum of 20 semester credits in the Nursing major. Students who need to complete a nursing course at Cleveland State in order to graduate from another institution will be reviewed on an individual basis

Licensed Practical Nurses

LPNs follow the basic student sequence but have the opportunity to test out of selected skill portions of the curriculum.

Registered Nurse Students

Admission requirements include:

1. Completion of items 1 to 3, 5 and 7 **above**
2. Current active Ohio license as a Registered Nurse

Credit for previous nursing course work will be awarded based on the school's participation in the Access in Nursing Model. Ohio graduates of both community colleges and diploma nursing programs will receive credit for prior nursing courses in which a grade of C or above was obtained. These credits granted at time of admission by Cleveland State's Office of Admission will be held in escrow until the student has successfully completed the junior year in the Nursing major. These credits will only count toward a baccalaureate degree in nursing.

Graduates from schools of nursing outside of Ohio will have their prior nursing course work evaluated on an individual basis.

Required Courses:

Elective Courses

The school offers several elective courses that are open to all university students. These include **NUR 250** and **NUR 498**.

Prerequisite Courses for Basic Students

All prerequisite courses must be completed prior to entry into the program in the fall semester. The prerequisite GPA is composed of all grades earned in the following courses:

- **BIO 264/265 Introductory Microbiology, Medical**
- **BIO 266/267 Anatomy and Physiology, Human I**
- **BIO 268/269 Anatomy and Physiology, Human II**
- ***CHM 251/256 College Chemistry I**
- **CHM 252/257 College Chemistry II**
- **ENG 101 English I**
- **ENG 102 English II**
- **MTH 118** (or higher)
- **NUR 345 Computers in Health Care**
- **PSY 101 Principles of Psychology**
- **SOC 101 Principles of Sociology**

Prerequisite Courses for R.N. Students

All prerequisite courses must be completed prior to entry into the program in the fall semester. The prerequisite GPA is composed of all grades earned in the following courses:

- **BIO 264/265 Introductory Microbiology, Medical**
- **BIO 266/267 Anatomy and Physiology, Human I**
- **BIO 268/269 Anatomy and Physiology, Human II**
- **CHM 252/257 College Chemistry II**
- **ENG 101 English I**
- **ENG 102 English II**
- **NUR 345 Computers in Health Care**
- **PSY 101 Principles of Psychology**
- **SOC 101 Principles of Sociology**

  AND
  one of the following courses in statistics:

- **COM 303 Communication Inquiry/Behavioral Science Statistics**
- **PSY 311 Quantitative Methods**
- **SOC 354 Quantitative Sociologic Research**

Support Courses for Basic Students

Support courses are prerequisite or corequisite to nursing courses. Their content is required for courses in the nursing curriculum. They may be completed at any time prior to the nursing course for which they are prerequisite. See **Course Descriptions** section of this catalog for required sequence.

- **PHL 240 Health Care Ethics**
  AND
- one of the following courses in statistics:
  - **COM 303 Communication Inquiry/Behavioral Science Statistics**
  - **PSY 311 Quantitative Methods**
  - **SOC 354 Quantitative Sociological Research**

Support Courses for R.N. Students

Support courses are corequisite to nursing courses. Their content is required for courses in the nursing curriculum. They may be completed at any time prior to the nursing course for which they are prerequisite. See **Course Descriptions** section of this catalog for required sequence.

- **PHL 240 Health Care Ethics**

Nursing Courses for Basic Students

- **NUR 200 Stress: A Framework for Professional Nursing**
- **NUR 215 Strategies for Nursing Practice**
- **NUR 216 Strategies for Nursing Practice Clinical**
- **NUR 218 Nursing Pharmacology**
- **NUR 219 Nursing Pathophysiology**
- **NUR 220 Health Assessment**
- **NUR 221 Health Assessment - Lab**
- **NUR 222 Tertiary Preventive Strategies for the Elderly Experiencing Stress**

- **NUR 225 Tertiary Preventive Strategies for Adults Experiencing Stress**
- **NUR 226 Tertiary Preventive Strategies for Adults Experiencing Stress- Clinical**
- **NUR 300 Nursing Leadership and Management**
- **NUR 305 Secondary Preventive Strategies for Adults Experiencing Stress**
- **NUR 306 Secondary Preventive Strategies for Adults Experiencing Stress - Clinical**
- **NUR 310 Nursing Research** or **NUR 360 Nursing Research**
- **NUR 312 Secondary Preventive Strategies for Adults Experiencing Psychosocial Stressors**
- **NUR 313 Secondary Preventive Strategies for Adults Experiencing Psychosocial Stressors - Clinical**
- **NUR 325 Secondary Preventive Strategies for Children Experiencing Stress**
- **NUR 326 Secondary Preventive Strategies for Children Experiencing Stress - Clinical**
- **NUR 380 Primary Preventive Strategies for Childbearing Families**
- **NUR 382 Primary Preventive Strategies for Childbearing Families - Clinical**
- **NUR 410 Primary Preventive Strategies for Communities I**
- **NUR 411 Primary Preventive Strategies for Communities I - Clinical**
- **NUR 412 Primary Preventive Strategies for Communities II**
- **NUR 414 Primary Preventive Strategies for Communities II - Clinical**
- **NUR 415 Preventive Strategies in Complex and Critical Situations**
- **NUR 416 Preventive Strategies in Complex and Critical**
- **NUR 420 Role Practicum**
- **NUR 430 Professional Seminar**

Nursing Courses for Registered Nurse Students

- **NUR 340 Stress: A Framework for Professional Nursing**
- **NUR 350 Nursing Leadership and Management**
- **NUR 360 Nursing Research** or **NUR 310 Nursing Research**
- **NUR 407 Preventive Strategies for Gerontologic Nursing**
- **NUR 408 Preventive Strategies for Nursing - Home Care**
- **NUR 409 Preventive Strategies for Nursing - Clinical**
- **NUR 430 Professional Seminar**
- **NUR 440 Primary Preventive Strategies for Communities**
- **NUR 441 Primary Preventive Strategies for Communities - Clinical**
- **NUR 460 Role Practicum**

Clinicals for R.N.s are scheduled only during the senior year of the program. They are designed to enhance the students' professional development and to provide new learning opportunities.

College of Education & Human Services: Certificate Programs

On this page:

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- **Introduction**
- **Requirements**
- **Go to College of Education & Human Services Web site**

Teaching English to Speakers of Other Languages (TESOL) (Certificate)

Introduction

The TESOL Certificate Program acquaints students with the basic knowledge and skills necessary to teach English as a second or foreign language. It would be useful to anyone interested in teaching English as a Second Language to immigrants in community agency ESL courses in the U.S. or to people who would like to teach English as a Foreign Language abroad. To get an undergraduate TESOL certificate a student needs to take five courses at the undergraduate (400) level. This option is open to all undergraduate students regardless of their major. It is also available to post-baccalaureate students as well as to non-degree undergraduate students. For further information, contact: Dr. Maria Angelova (phone: (216) 523-7115; e-mail: **m.angelova@csuohio.edu**), Dr. Hoe Kyeung Kim (phone: (216) 523-7122; e-mail: **h.k.kim64@csuohio.edu**), or the College of Education and Human Services Advising Office at (216) 687-4625.

This program includes five of the core courses necessary for TESOL endorsement that can be added to a Teaching Licensure in any field. Two additional courses, however, are required to complete the Endorsement in full. Teachers seeking to complete the Endorsement program should contact the College of Education and Human Services Advising Office at (216) 687-4625 for further information.

Certificate Requirements

The requirement for this certificate is the completion of five courses from the TESOL specialization courses. Three of these courses (EDL 406, EDL 408 and EDL 410) have been offered online since the fall of 2006.

- **EDL 406 Second Language Learning and Pedagogy** (3 hours)
- **EDL 407 Instructional Methods and Assessment in TESOL** (3 hours)
- **EDL 408 Applied Linguistics for Teachers** (3 hours)
- **EDL 409 Evaluation and Assessment in TESOL** (3 hours)
- **EDL 410 Pedagogical Grammar** (3 hours)

College of Education & Human Services: Minors

- **Dance**
- **Health Education**
- **Sport Management**

Fenn College of Engineering

On this page:

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- **Degree Listing**
- **Evening Programs**
- **Summer Programs**
- **General Requirements**
    - **Transfer Policy**
- **University Electives for Engineering Students**
- **Closed Course Sections**
- **Course Withdrawal Policy**
- **Enrollment in Engineering Courses by Non-Engineering Students**
- **Engineering Cooperative Education Program**
- **Engineering Minor**
- **Late Registration and Late Adding a Course**
- **Certificate Programs**
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Bachelor of Engineering Degree Requirements
Requirements for specific degree programs are set forth in the following sections of this catalog.

Bachelor of:

- **Chemical Engineering**
- **Civil Engineering**
- **Computer Engineering**
- **Electrical Engineering**
- **Industrial Engineering**
- **Mechanical Engineering**
- **Bachelor of Science in Engineering Technology Programs:**
    - **B.S. in Electronic Engineering Technology**
    - **B.S. in Mechanical Engineering Technology**

- **Go to Fenn College of Engineering Web Site**

Introduction

Web site: **www.csuohio.edu/engineering**

The fields of engineering and engineering technology have been fundamental forces in the advancement of humanity. The Fenn College of Engineering offers a variety of programs to students who wish to contribute to the world's progress through engineering and technology. All engineering programs and electronics engineering technology are accredited by ABET, Inc. ABET is the recognized accrediting agency for college and university programs in applied science, computing, engineering, and technology.

Students planning to enter the engineering profession may major in Chemical, Civil, Computer, Electrical, Industrial, or Mechanical Engineering. Those who plan to become engineering technologists may major in Electronic Engineering Technology or Mechanical Engineering Technology.

The college offers a certificate program for students who are working towards or already have a degree and want to add coursework that will enable them to focus on the biomedical field.

In addition, the College of Engineering offers graduate programs at both the master's and doctoral level in conjunction with the College of Graduate Studies. For further information, consult the **Cleveland State University Catalog, Graduate Issue**, or call the Dean's Office at: (216) 687-2555.

Degrees

The faculty of Fenn College of Engineering offers programs leading to the following degrees:

- **Bachelor of Chemical Engineering**
- **Bachelor of Civil Engineering**
- **Bachelor of Computer Engineering**
- **Bachelor of Electrical Engineering**
- **Bachelor of Industrial Engineering**
- **Bachelor of Mechanical Engineering**
- **Bachelor of Science in Electronic Engineering Technology**

- **Bachelor of Science in Mechanical Engineering Technology**

Evening Programs

It is possible to obtain an engineering degree with evening classes in the following areas: electronic engineering technology, mechanical engineering, and mechanical engineering technology. In addition, many of the classes required by the remaining engineering majors are offered in the evening.

Summer Programs

The College of Engineering offers a number of engineering science courses during the summer semester. Departmental courses are offered on a limited basis.

General Requirements

Depending on the program of study, a minimum of 128-136 credits of academic work is required for a bachelor of engineering degree (this does not include credits earned in the Cooperative Education Program and Orientation). Consult the program specific sections of this catalog for guidelines and minimum degree requirements.

All degree candidates must satisfy the university requirements which include English and General Education Requirements.

Degree candidates must attain a cumulative grade-point average of at least 2.00 for all work and at least 2.00 for all required courses — including technical electives — in the combined areas of engineering, computer science, mathematics, physics, and chemistry.

Technical electives are courses in engineering, mathematics, physical sciences, or computer science at the 300 level or above. These electives must not duplicate any courses used to satisfy other credit requirements in the student's program. Courses chosen to satisfy the technical elective requirement must have adviser approval and must be taken for a grade.

All students are assigned to an engineering faculty member who will serve as their adviser. It is the responsibility of students to keep the adviser informed of their academic progress.

Students may not enroll in any courses for which they lack the required prerequisites. It is the responsibility of the student to see that all course prerequisites are satisfied.

The college reserves the right to alter the content of courses and curricula without previous notice and to provide suitable transition curricula which phase students into the newer courses and curricula.

Transfer Policy

Students enrolled in a college at Cleveland State other than the College of Engineering who wish to be considered for transfer to the College of Engineering should complete **MTH 181**, **182**, **CHM 261**, **266**, **ENG 101**, **102**, and **PHY 241** or **243**. The College of Engineering requires a C or better in each of these courses, and an overall GPA of at least 2.2. The GPA will be calculated excluding remedial and pre-calculus courses.

University Electives for Engineering Students

In addition to Engineering College and departmental requirements and English requirements, university elective courses must be completed in the following areas for a total of 21 credit hours which will complete the university General Education (GenEd) Requirements:*****

Arts/Humanities:

- 9 credit hours, including **PHL 215**. Courses must be selected from two different departments.

The Social Sciences:

- 9 credit hours, including **ESC 282**.

One Western Culture and Civilization Course**

One Nonwestern Culture and Civilization Course**

One course in Human Diversity (HD) or African-American Experience**

One course in African-American Experience (AAE)

*****Students are advised to refer to the **General Education Requirements (GenEd)** of the university, in an earlier part of the catalog, for details.

******Both the Nonwestern and the Western Culture and Civilization courses and one of the HD or AAE courses can double count with the Arts/Humanities or Social Sciences.

Closed Course Sections

In courses for which a waiting-list is maintained, students may be admitted above the authorized size specified by the college, up to the room capacity, at the discretion of the instructor, and taking into account the availability of other sections.

For a course section that is closed and for which a student waiting-list is maintained, a student already enrolled in the section but unable to attend the first class period must notify the course instructor. After one class period, the college reserves the right to reassign the seat of a student not in attendance to someone from the course waiting-list.

Course Withdrawal Policy

The College of Engineering enforces a strict policy concerning student withdrawal from a course after the course has begun. A student may withdraw from a course until the university's published date for withdrawal. Engineering students are not allowed to withdraw from a course after that date. However, if extreme circumstances arise which may necessitate a student's withdrawal

from a course, the student may submit a petition to the Engineering College Petitions Committee. The petition must state the specific reasons for withdrawal. These reasons must be fully documented. The petition must be signed by the student's adviser. The Petitions Committee will determine if the reason is compelling enough to require withdrawal from a course. The particular course or courses to be dropped must be determined in consultation between the student and the adviser. Poor academic performance in a course is not considered a valid reason for late withdrawal. Students should not stop attending a course unless approval of the petition is granted, since very few petitions are approved.

Enrollment in Engineering Courses by Non-Engineering Students

Enrollment in 200-level or above engineering courses is only open to students in the College of Engineering. If a non-engineering student wishes to take an engineering course as an elective, the student must first obtain the permission of the faculty adviser, who will determine the appropriateness of the course to the student's overall plan of study.

The student then must obtain approval by the dean of Engineering. If the student receives approval, written authorization will be given, which must be submitted when registering for the course. Students in the Biotechnology Certificate program can take the relevant engineering courses only after approval from the department offering the specific course is obtained.

Engineering Cooperative Education Program

The Cooperative Education (Co-op) program at Cleveland State University's Fenn College of Engineering is an experimential education opportunity that provides the link between the classroom and the workplace. It is an opportunity for the student to learn about his/her area of academic interest through practical experience. Participation is strongly encouraged.

In order for students of the Fenn College of Engineering to participate in the Engineering Cooperative Education Program, they must satisfy the following requirements:

1. Complete **CSC 121** (Career Orientation)
2. Be in good academic standing (not on probation) with a cumulative grade-point average of 2.20 or better
3. Complete all courses through freshman or sophomore year, depending on major
4. Transfer students must complete at least 8 credit hours of course work at Cleveland State University in the engineering program, plus meet requirements 1, 2, and 3 above
5. Approval of the engineering cooperative education coordinator
6. Approval of the dean of Engineering

To remain in the engineering co-op program a student must:

1. Maintain a cumulative GPA of 2.20 or better and not be on probation
2. Register for **CSC 400** before each work assignment
3. Complete all required paperwork and reports on time
4. Not deviate from the co-op schedule unless approved by the engineering cooperative education coordinator and the dean of Engineering
5. Meet formally at least once per semester with his /her faculty member

Students who have been accepted into the Engineering Cooperative Education Program are expected to remain in the program and to complete the schedule approved. A student can withdraw from the program only after giving adequate notice to the cooperative education office and getting approval from that office.

A student who withdraws from the program is not eligible to reapply. A minimum of three semesters of co-op experience is required to qualify as a graduate of the Engineering Cooperative Education Program. Credits earned in the Engineering Cooperative Education Program are in addition to the credits required for an engineering degree.

Students who wish to enter the Engineering Cooperative Education Program should go to the Cooperative Education Office in the Engineering Dean's Office and request permission to enter the program. The cooperative plan of education consists of alternating periods of employment and full-time study. Special permission is required to take a course while on a co-op assignment. Table J below shows the typical schedules of the program.

Table J: Engineering Co-op Schedule

	Fall	Spring	Summer
Year 1	1st study	2nd study	vacation
Year 2	3rd study	4th study	co-op or school
Year 3	5th study	co-op	class
Year 4	co-op	6th study	co-op
Year 5	7th study	8th study	

Engineering Minor

There are no minors available in the College of Engineering.

Late Registration and Late Adding a Course

No registration or adds will be permitted after the end of the first week of class. Students must complete the registration process by the end of the first week of class in the semester in which enrollment is sought. Also, students can add courses to their registration only through the first week of class in the semester in question.

Chemical Engineering

On this page:

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- **Educational Objectives**
- **Program**
- **Honors Program**
- **CHE Courses**
- **Go to Chemical and Biomedical Engineering Web Site**

Chemical Engineering (B.Ch.E.)
At-a-Glance

Minimum hours required for degree:
135 (not including credits earned in the Engineering Cooperative Education Program and Orientation)

Admission to major: Admission to Fenn College of Engineering

Hours required for minor:
There is no authorized minor in the Chemical Engineering Program. The chemical engineering curriculum fulfills the requirements for a minor in chemistry; the requirements for a minor in physics can be fulfilled with 4 additional credit hours. Interested students must complete an application with the Chemistry and Physics departments.

Certificate Program: Biotechnology - Engineering Track
(**see description** or call the department at (216) 687-2571 for additional information.)

Evening Program: No evening program exists, but most non-CHE courses (and CHE electives) are offered evenings

Advising: Students should meet with their assigned adviser each semester during advising week; phone: (216) 687-2571

Student Organizations: American Institute of Chemical Engineers (AIChE), Student Chapter

Chemical Engineering Educational Objectives

The Chemical Engineering curriculum prepares the student for a successful career in a dynamic and progressive profession. A chemical engineer may pursue a wide scope of projects. Chemical engineers are responsible for the design and operation of processes that accomplish chemical changes. Examples of such processes are the production of antibiotics, detergents, drugs, paints, plastics, petrochemicals, advanced materials, and synthetics. A chemical engineer may also work on the research and development preceding or accompanying a given process design, or the management of a plant or an entire enterprise. The Cleveland State University chemical engineering curriculum provides a strong foundation to work in energy conservation and utilization, environmental pollution control, as well as the petrochemical industry and many other chemical-related industries. Consistent with mission of the university, college and department, this program has been designed to provide an attractive avenue for students interested in Chemical Engineering.

The chemical engineering program at CSU strives to prepare its graduates to:

1. Utilize practical engineering skills for productive, gainful, and ethical careers in chemical and related industries and organizations; and
2. Engage in lifelong learning through professional activities and/or the pursuit of higher educational degrees.

Special Notes:

Advanced Chemistry and Science Electives:
A minimum of 6 credit hours of chemistry electives are required for the degree. These electives must be major courses at the 300-level or above, and include 4 credit hours of organic chemistry and a 2-credit-hour chemistry laboratory. In addition, 4 credit hours of advanced science are required. The advanced science credits must be earned in a 300-level or above course in the fields of chemistry, physics, biology or geology. Independent studies with faculty from the departments of Chemistry, Physics, Biology or Geology can be used to fulfill these requirements. These courses must be taken for a letter grade, and students are required to present a formal written petition to the Department of Chemical and Biomedical Engineering prior to registration in such independent studies. Courses promoted on an S/U basis will not qualify to fulfill graduation requirements. Students can plan their electives sequence to fulfill the requirements for minors in chemistry and physics. These electives can also be selected to satisfy the Biotechnology Certificate track. Details and guidelines can be obtained from the department academic adviser.

Chemical Engineering Electives:
Two chemical engineering electives are also required. These elective courses must be approved by the department, for engineering design and science contents. A varied selection is offered each year. These electives can be selected to satisfy the Biotechnology Certificate track.

2-D in ESC and CHE rule:
Chemical Engineering students are limited to a combined maximum of two grades of D in Engineering Science (ESC) or Chemical Engineering (CHE) courses to be eligible for graduation.

Program for Chemical Engineering

First Year, Fall Semester	Credits
ENG 101 English I	4

MTH 181 Calculus I	4
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation *	1
Total	15-16

First Year, Spring Semester	**Credits**
ENG 102 English II or **MCE 102 Technical Writing**	2 or 3
MTH 182 Calculus II	4
PHY 241 University Physics I	5
CHM 262 General Chemistry II	4
CHM 267 General Chemistry Lab II	1
CSC 121 Career Orientation **	1
Total	17-18

Second Year, Fall Semester	**Credits**
PHY 242 University Physics II	5
CHE 300 Chemical Engineering Principles	4
ESC 151 C Programming	3
ESC 250 Differential Equations for Engineers	3
MTH 283 Multivariable Calculus for Engineers	2
Total	17

Second Year, Spring Semester	**Credits**
ESC 321 Thermodynamics I	3
ESC 301 Fluid Mechanics	3
ESC 350 Linear Algebra and Numerical Methods in Engineering	3
ESC 315 Electrical Engineering Concepts or **ESC 201 Statics**	3
General Education Elective	3
General Education Elective	3
Total	18

Third Year, Fall Semester	**Credits**
CHE 302 Chemical Engineering Thermodynamics	4
CHE 306 Transport Phenomena	4
ESC 270 Materials Science	3
CHM 331 Organic Chemistry I	4
CHM 336 Organic/Adv. Chem. Lab I	2
CHE 308 Junior Laboratory (Writing)	1
Total	18

Third Year, Spring Semester	**Credits**
CHE 404 Introduction to Reactor Design	4
CHE 408 Separation Processes	4
ESC 282 Engineering Economy	3
CHM 322 Physical Chemistry II	4
PHL 215 Engineering Ethics (Writing)	3
Total	18

Fourth Year, Fall Semester	**Credits**

CHE 440 Process Design I	3
CHE 430 Process Control (Writing)	4
CHE 4xx Chemical Engineering Elective I	3
Advanced Science Elective	4
General Education Elective	3
Total	17

Fourth Year, Spring Semester	**Credits**
CHE 441 Process Design II	3
CHE 4xx Chemical Engineering Elective II	3
CHE 420 Chemical Engineering Laboratory (Writing)	4
General Education Elective	3
General Education Elective	3
Total	16

*****Not required for transfer students

***Required for co-op*

Upper-Division Honors Program

Honors students majoring in Chemical Engineering are required to complete an Honors Thesis (three credit hours, minimum) and at least six (6) additional credits of approved Honors Courses and/or Honors Independent Studies. These credits can be used to fulfill graduation requirements within the traditional program, by substituting for Senior Chemical Engineering Electives as well as the Advanced Science Elective requirement.

Aiming to address a variety of educational goals (preparation for industry, graduate school, medical school, professional schools, etc.), the upper-division honors program of the Chemical and Biomedical Engineering Department is to be tailored for each individual student.

Students will be assigned an honors adviser who will work with the student to help define the student's educational goals and design an appropriate path for achieving them. During the first semester of the student's junior year, a study plan will be presented by the student to the department faculty for approval.

- **Upper-Division Honors Program:**

  CHE 494H/495H Honors Selected Topics in Chemical and Biomedical Engineering (3 credit hours)

  An honors student may elect to enroll in a graduate-level course so long as the prerequisites are met or the instructor gives approval. The course will be registered for under CHE 494H with the same title as the graduate course and for the same number of credit hours as the graduate course is offered. If desired, a second graduate course can be taken as CHE 495H. These courses are intended to replace the (two) Chemical Engineering Technical Electives graduation requirement.

  CHE 496H Chemical and Biomedical Engineering Honors Project (1 to 3 credit hours)

  If the proposed project for the Honors Thesis is anticipated to require more than one semester, the student can register for this Honors Independent Study in semesters prior to the CHE 499H Honors Thesis. Unlike the traditional Chemical Engineering (Senior) Project (CHE 496, open to seniors only), this course will be open to both juniors and seniors in the Honors Program.

  CHE 499H Chemical and Biomedical Engineering Honors Thesis (3 credit hours)

  All Chemical Engineering Honors students are *required* to write and present a thesis in their senior year, as a culmination of their honors experience. Thesis work will be performed under the guidance of a faculty member of the Department of Chemical and Biomedical Engineering and may take the form of a proposal, a research paper, a business plan, or a design project, representing the work and interest of the student. At the outset, the topic and scope of the thesis will be detailed and approved by the student's academic and honors adviser(s).
- Conference attendance

  Senior honors students will have the opportunity to travel to a regional, national, or international professional meeting with his or her project adviser. If appropriate, students will be encouraged to present work performed towards completion of the Honors Thesis. Funds will be available to support travel and/or conference fees.

- Replaced courses:

  Credits from the honors courses can be used to replace two chemical and biomedical engineering electives as well as the advanced science elective.

Civil Engineering

On this page:

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- **Program**
- **CVE Courses**

- **Go to Civil and Environmental Engineering Department**

Civil Engineering (B.C.E.)
At-a-Glance

Minimum hours required for degree:
137 (does not include hours earned in the Engineering Cooperative Education Program and Orientation)

Admission to major: Admission to the Fenn College of Engineering

Hours required for minor: There is no authorized minor in the Civil Engineering degree program.

Evening Program:
There is no Civil Engineering evening program; however, many courses required for the degree are offered evenings.

Advising: Each student is assigned a personal adviser who is a faculty member of the department.

The civil engineering profession deals with the design and construction of facilities necessary for the quality of life.

From the pyramids to the space station, Hoover Dam to the Golden Gate Bridge, civil engineers leave their mark on the world. They are responsible for skyscrapers, sports arenas, housing facilities, roads, highways, bridges, dams, lakes, tunnels, airport terminals and runways, rocket-launching support structures, and space stations. Without these projects, as well as air- and water-pollution control systems, solid and hazardous waste disposal facilities, water and waste treatment facilities, sewer and water supply networks, drainage and irrigation systems and land reclamation from the sea, all civil engineering projects, what would our civilization be like?

The Civil and Environmental Engineering Department prepares its students to meet the challenges of such projects. Students in the program develop a clear, deep understanding in the areas of structural, environmental, and water resources and geotechnical engineering. They also study transportation, planning, surveying, and construction.

Students develop insights into the physical, economical, sociological, and political constraints which must be considered in engineering analysis and design. Upon completion of the program, the new engineers are able to make a smooth transition to civil engineering practice and research.

Program Objectives

The objectives of the Civil Engineering program are consistent with the mission statements and guiding principles of the college and the university. The objectives are to produce graduates who within two to five years after graduation:

1. communicate verbally and in writing effectively
2. demonstrate progressive technical competency
3. acquire and maintain professional registration(s)
4. participate and/or lead as an engineering team member
5. meet realistic project schedule deadlines and budget constraints consistently
6. continue professional growth through activities such as continuing education, graduate school, activities in professional societies and community involvement
7. make decisions that include ethical and societal considerations
8. demonstrate critical thinking skills

Special Notes

3-C Policy in ESC courses:
Civil Engineering students must earn a grade of C or better in ESC 201, ESC 211, and ESC 301 before registering for any higher-level course for which any of these three courses are a prerequisite.

2-D Rule in CVE courses: Students are limited to two grades of D in Civil Engineering courses and Civil Engineering Technical electives to be eligible for graduation.

Required Civil Engineering Technical Electives:
The two required Civil Engineering technical electives must be selected from the available 400-level civil engineering courses. (Note that CVE 450 is for non-engineers in the Environmental Science and Environmental Master's degree program, and should not be taken by Civil Engineering students. It cannot be used as a Civil Engineering technical elective. CVE 451-454 are part of the Surveying Certificate Program, and cannot be used as Civil Engineering technical electives.)

When used as a course prerequisite, Senior Standing means that all required Engineering College and Civil Engineering courses through the junior year must be completed.

Program for Civil Engineering

First Year, Fall Semester Credits	Credits
ENG 101 English I	4

MTH 181 Calculus I	4
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Laboratory I	1
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation * **Not required for transfer students*	1
Total	15-16

First Year, Spring Semester	**Credits**
ENG 102 English II	3
MTH 182 Calculus II	4
PHY 241 University Physics I	5
ESC 150 Fortran or ESC 151 C Programming	3
CVE 211 Surveying	3
CSC 121 Career Orientation ** ***Required for co-op*	1
Total	18-19

Second Year, Fall Semester	**Credits**
MTH 283 Multi. Calc. for Engineers	2
PHY 242 University Physics II	5
ESC 201 Statics	3
ESC 250 Differential Equations for Engineers	3
CVE 212 Surveying Laboratory	2
GenEd Elective	3
Total	18

Second Year, Spring Semester	**Credits**
ESC 211 Strength of Materials	3
ESC 301 Fluid Mechanics	3
ESC 310 Engineering Statistics and Probability	3
ESC 315 Electrical Engineering Concepts or **ESC 321 Thermodynamics**	3
ESC 350 Linear Algebra and Numerical Methods in Engineering	3
GenEd Elective	3
Total	18

Third Year, Fall Semester	**Credits**
CVE 310 Strength of Materials Laboratory	2
CVE 312 Structural Analysis I	3
CVE 361 Hydraulic Engineering	3
CVE 362 Hydraulics Lab	1
CVE 371 Environmental Engineering I	3
ESC 202 Dynamics	3
PHL 215 Engineering Ethics (Writing)	3
Total	18

Third Year, Spring Semester	**Credits**
CVE 322 Structural Steel Design	3
CVE 331 Introduction to Geotechnical Engineering	3
CVE 332 Geotechnical Engineering Lab	2
CVE 412 Structural Analysis II	3

CVE 473 Environmental Engineering II	3
CVE 474 Environmental Engineering Laboratory	2
Total	16

Fourth Year, Fall Semester	**Credits**
CVE 422 Reinforced Concrete Design	3
CVE 426 Senior Design	2
Civil Engineering Tech Elective	3
ESC 282 Engineering Economy	3
CVE 429 Foundation Engineering	3
GenEd Elective	3
Total	17

Fourth Year, Spring Semester	**Credits**
CVE 403 Construction Planning and Estimating	3
CVE 426 Senior Design (Writing)	2
CVE 446 Transportation Engineering	3
Civil Engineering Tech Elective	3
GenEd Elective	3
GenEd Elective	3
Total	17

Computer Engineering

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- **Program**

- **Go to Department of Electrical and Computer Engineering**

Computer Engineering (B.C.E.)
At-a-Glance

Minimum hours required for the degree:
139. This does not include credits earned in the Engineering Cooperative Education Program and Orientation.

Admission to major: Admission to the Fenn College of Engineering.

Hours required for minor: There is no authorized minor in the Computer Engineering Program.

Evening Program: There is no evening program in Computer Engineering.

Advising:
All students are advised by the faculty member currently serving as the departmental undergraduate adviser in the Department of Electrical and Computer Engineering. Phone: (216) 687-2589.

Student organizations:
Institute of Electrical and Electronics Engineers; Eta Kappa Nu - Honor Society for Electrical Engineering and Computer Engineering.

Additional information:
Students in the Computer Engineering Program choose areas of interest from technical electives in the senior year.

The Computer Engineering Program is a program in the **Department of Electrical and Computer Engineering**. The Computer Engineering Program emphasizes the use of computers in engineering systems, and interfacing of computers to physical systems; it is intended for those preparing to enter industry as well as those who wish to pursue graduate degrees in Computer Engineering, Electrical Engineering, Software Engineering, or Computer Science.

The program includes a spectrum of courses and considerable laboratory experience. In addition, depth in computer engineering is provided by technical electives. This program is extensively supported by the Department of Computer and Information Science.

Program Objectives

The Computer Engineering Program is designed to produce graduates who are able to

1. practice computer engineering
2. define and diagnose problems, and provide and implement computer engineering solutions in industry, business, and government
3. observe engineering ethics in the practice of computer engineering
4. communicate effectively with technically diverse audiences
5. collaborate with others as a member or as a leader in an engineering team
6. develop their knowledge beyond the undergraduate level and keep current with advancements in computer engineering

Computer Engineering students are limited to two grades of D in EEC courses. Technical electives must be chosen from the available EEC elective courses.

Program for Computer Engineering

First Year, Fall Semester	**Credits**
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Laboratory I	1
ENG 101 English I	4
MTH 181 Calculus I	4
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation* *Not required for transfer students*	1
Total	15-16

First Year, Spring Semester	**Credits**
CIS 260 Introduction to Programming	4
CSC 121 Career Orientation** ***Required for co-op*	1
ENG 102 English II	3
MTH 182 Calculus II	4

PHY 243 University Physics I (Writing)	5
Total	16-17

Second Year, Fall Semester	**Credits**
EEC 310 Electric Circuits I	4
ESC 250 Differential Equations for Engineers	3
CIS 265 Data Structures and Algorithms	4
MTH 284 Matrices for Engineers	2
PHY 244 University Physics II (Writing)	5
Total	18

Second Year, Spring Semester	**Credits**
CIS 334 Fundamentals of Microcomputer Architecture	2
CIS 340 C/C++ for Systems Programming	2
EEC 311 Electric Circuits II	4
EEC 313 Electronics I	4
ESC 310 Engineering Statistics and Probability	3
General Education Elective	3
Total	18

Third Year, Fall Semester	**Credits**
MTH 220 Discrete Mathematics	4
CIS 345 Operating System Principles	4
EEC 316 Electronic Devices Laboratory	1
EEC 380 Digital Systems	4
General Education Elective	3
General Education Elective	3
Total	16

Third Year, Spring Semester	**Credits**
EEC 381 Digital Systems Laboratory I	2
EEC 483 Computer Organization	4
ESC 282 Engineering Economy	3
ESC Engineering Science Elective	3
PHL 215 Engineering Ethics (Writing)	3
General Education Elective	3
Total	18

Fourth Year, Fall Semester	**Credits**
EEC 480 Modern Digital Design	4
EEC 481 Digital Systems Laboratory II	2
EEC 484 Computer Networks	4
EEC 485 High Performance Architectures	4
EEC Technical Elective	4
Total	18

Fourth Year, Spring Semester	**Credits**
EEC 482 Computer Engineering Laboratory	2
EEC 490 Senior Design	4
EEC Technical Elective	4
EEC Technical Elective	4
General Education Elective	3
Total	17

Electrical Engineering

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- **EEC Courses**

- **Go to Electrical and Computer Engineering Department**

Electrical Engineering (B.E.E.)

At-a-Glance

Minimum hours required for the degree:
132. This does not include credits earned in the Engineering Cooperative Education Program and Orientation.

Admission to major: Admission to the Fenn College of Engineering.

Hours required for minor: There is no authorized minor in the Electrical Engineering Program.

Evening Program: There is no evening program in Electrical Engineering, although some courses are offered in the evening.

Advising:
All students are advised by the faculty member currently serving as the departmental undergraduate adviser in the Department of Electrical and Computer Engineering. Phone: (216) 687-2589.

Student organizations:
Institute of Electrical and Electronics Engineers; Eta Kappa Nu - Honor Society for Electrical Engineering and Computer Engineering.

Additional information:
Students in the Electrical Engineering Program choose areas of interest from technical electives in the senior year.

The Electrical Engineering Program is a program in the Department of Electrical and Computer Engineering. Electrical engineering provides a variety of opportunities in work related to digital computers, electronics, control systems, communication systems, power electronics and systems, and other areas. The electrical engineering curriculum is intended to provide students with a background suitable for either industrial employment or advanced education at the graduate level. The program includes a spectrum of courses and considerable laboratory experience. In addition, depth in areas of specialization within electrical engineering is provided by several technical electives.

Program Objectives

The Electrical Engineering Program is designed to produce graduates who are able to

1. practice electrical engineering in one or more of the following areas: communications computers, controls, power electronics, and power systems
2. define and diagnose problems, and provide and implement electrical engineering solutions in industry, business, and government
3. observe engineering ethics in the practice of electrical engineering
4. communicate effectively with technically diverse audiences
5. collaborate with others as a member or as a leader in an engineering team
6. develop their knowledge beyond the undergraduate level and keep current with advancements in electrical engineering

Electrical Engineering students are limited to two grades of D in EEC courses. Technical electives must be chosen from the available EEC elective courses.

Program for Electrical Engineering

First Year, Fall Semester	**Credits**
CHM 261General Chemistry I	4
CHM 266 General Chemistry Laboratory I	1
ENG 101 English I	4
MTH 181 Calculus I	4
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation *Not required for transfer students*	1
Total	15-16

First Year, Spring Semester	**Credits**
CSC 121 Career Orientation *Required for co-op*	1

ENG 102 English II	3
ESC 151 ANSI C	3
MTH 182 Calculus II	4
PHY 243 University Physics I (Writing)	5
Total	15-16

Second Year, Fall Semester	**Credits**
EEC 310 Electric Circuits I	4
ESC 250 Differential Equations for Engineers	3
MTH 283 Multivariable Calc. For Engineers	2
MTH 284 Matrices for Engineers	2
PHY 244 University Physics II (Writing)	5
General Education Elective	3
Total	19

Second Year, Spring Semester	**Credits**
EEC 311 Electric Circuits II	4
EEC 313 Electronics I	4
ESC 310 Engineering Statistics & Probability	3
General Education Elective	3
General Education Elective	3
Total	17

Third Year, Fall Semester	**Credits**
EEC 314 Electronics II	4
EEC 315 Electronics Lab	2
EEC 361 Electromechanical Energy Conversion	4
EEC 380 Digital Systems	4
General Education Elective	3
Total	17

Third Year, Spring Semester	**Credits**
EEC 381 Digital Systems Lab	2
ESC 203 Statics & Dynamics	4
ESC 282 Engineering Economy	3
PHL 215 Engineering Ethics (Writing)	3
General Education Elective	3
Total	15

Fourth Year, Fall Semester	**Credits**
EEC 440 Control Systems	4
EEC 441 Control Systems Lab	2
EEC 450 Communications	4
EEC 451 Communications Lab	2
EEC 470 Power Electronics	4
Total	16

Fourth Year, Spring Semester	**Credits**
EEC 471 Power Electronics & Machines Lab	2
EEC 490 Senior Design	4
EEC Technical Elective	4

EEC Technical Elective	4
EEC Technical Elective	4
Total	18

Industrial Engineering

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Industrial Engineering (B.I.E.)
At-a-Glance

Minimum hours required for degree: 128. This does not include 1 credit earned in New Student Orientation.

Admission to major: Admission to Fenn College of Engineering

Hours required for minor: There is no authorized minor in the Industrial Engineering Program.

Evening program:
No evening program, but the majority of advanced IME courses are offered during late afternoon and evening time slots.

Advising:
All students are advised by the department chairperson during advising week each semester. Appointments are strongly recommended. Phone: (216) 687-2044.

Student organizations:
Institute of Industrial Engineers, Student Chapter, Society of Manufacturing Engineers, Alpha Pi Mu (Honor Society), American Society for Quality, American Society for Engineering Education

Industrial Engineering

Industrial Engineering is the application of scientific and mathematical principles to the design, improvement, and installation of integrated systems of people, material, information, and energy. As an Industrial Engineer, you may participate in long-range planning or project management; create a new design of a product that is easier to assemble, or costs less to produce, or will prevent worker injuries; train workers how to work more efficiently or operate new equipment; use and sometimes create software programs to design and analyze systems or facilities; write proposals to justify the creation of new products or services; or use process mapping to track down and fix root causes of chronic systems problems. Because the work involves integrated systems, Industrial Engineering is known as "people-oriented engineering."

Fenn College's curriculum in Industrial Engineering prepares students for successful careers in the following occupations: management engineer, human factors engineer, operations analyst, and quality engineer, among others. Graduates are employed in industries such as food, pharmaceuticals, steel, automotive, and telecommunications, as well as in service industries such as health care, banking, finance, transportation, government, and consulting.

Career Opportunities

Career opportunities for industrial engineers are excellent, with projected growth between 10-20 percent through 2012. Engineering ranks among the highest paid professional fields.

Cooperative Education

The Cooperative Education Program provides excellent opportunities for hands-on, paid work experience, and participation in the **Cooperative Education Program is strongly recommended**. Co-op enables students to alternate between classes and work in the field at many prominent companies.

The Industrial Engineering curriculum is designed to provide a sound basis for formal advanced study and self development, and many industrial engineering students eventually earn advanced degrees in the field. In concert with the recommendations of the Accreditation Board for Engineering and Technology, Inc. (ABET), the program is designed to fulfill the following objectives.

Program objectives:

The objectives of the Bachelor of Industrial Engineering degree program are to produce graduates who are able to:

1. Practice industrial engineering in one or more of the enterprise areas such as: manufacturing systems, quality systems, operations analysis, production planning or facilities planning and design.
2. Define and diagnose problems from an industrial engineering perspective, and implement solutions in an enterprise-wide environment.
3. Communicate effectively with technically and professionally diverse audiences at all levels of the enterprise.
4. Collaborate with others as a member or as a leader of an engineering or cross-functional enterprise team.
5. Continue to pursue lifelong learning to develop knowledge professionally and keep current with the latest advancements in industrial engineering.
6. Pursue graduate studies leading to graduate degrees.

Industrial Engineering students are limited to no more than one grade of D in IME courses, ESC 282 and ESC 310.

Students must choose two technical electives with adviser approval. Technical electives may be 300-level or 400-level courses in Industrial Engineering, other engineering disciplines, science, mathematics, computer science, or business.

Industrial Engineering students can be nominated into the honors organization Alpha Pi Mu during their junior or senior year.

Program for Industrial Engineering Degree

First Year, Fall Semester	Credits
ENG 101 English I	4
MTH 181 Calculus I	4
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
ESC 120 Introduction to Engineering Design	3
ESC 100 New Student Orientation *	1
***Not required for transfer students.*	
Total	15-16

First Year, Spring Semester	Credits
ENG 102 English II	3
ENG 105 Writing Center I	2
MTH 182 Calculus II	4
PHY 243 Univ. Physics I with Lab (Writing)	5
CSC 121 Career Orientation *	1
***Required for all IME students.*	
GenEd Elective	3
Total	18

Second Year, Fall Semester	Credits
MTH 284 Matrices for Engineers	2
PHY 244 Univ. Physics II with Lab (Writing)	5
ESC 151 Programming	3
ESC 250 Differential Equations for Engineers	3
ESC 270 Materials Science	3
Total	16

Second Year, Spring Semester	Credits
ESC 203 Statics & Dynamics	4
ESC 310 Eng. Statistics & Prob.	3
ESC 321 Thermodynamics I	3
COM 242 Public & Professional Speaking	3
GenEd Elective	3
Total	16

Third Year, Fall Semester	Credits
IME 101 Introduction to CAD	1
IME 250 Material Processing and Methods	3
IME 251 Material Processing and Methods Lab	1
IME 304 Work Methods & Measurements	3
IME 305 Work Methods and Measurements Lab	1
IME 320 Engineering Experimental Design	3
IME 330 Operations Research I	3
ESC 282 Engineering Economy	3
Total	18

Third Year, Spring Semester	Credits
IME 331 Operations Research II	3

IME 405 Industrial Ergonomics	3
IME 410 Statistical Quality Control	3
IME 477 Facility Planning	3
IME 478 Facility Planning Lab	1
PHL 215 Engineering Ethics (Writing)	3
Total	16

Fourth Year, Fall Semester	**Credits**
IME 465 Manufacturing Systems Engineering	3
IME 470 Production Planning & Control	3
IME 480 Engineering Design	3
Technical Elective	3
GenEd Elective	3
Total	15

Fourth Year, Spring Semester	**Credits**
IME 475 Systems Simulation	3
IME 481 Senior Design	2
Technical Elective	3
GenEd Elective	3
GenEd Elective	3
Total	14

Technical Electives:

Students are required to take a minimum of 6 hours of technical electives. A student may, with department approval, take courses from another engineering department or college within Cleveland State University.

Industrial Engineering Technical Electives

The following list is a sample of courses that students have taken for technical elective credit.

- **IME440 Applications of PLC's**
- **IME 450/451 Industrial Automation/Lab**
- **IME 471 Operational Level Scheduling**
- **IME 474 Expert Systems for Engineers**
- **IME 476 Law for Engineers**
- **IME 506 Industrial Safety and Health**
- **IME 540 Quality System Design**
- **IME 570 Continuous Quality Improvement**
- **IME 580 Engineering Management**

Mechanical Engineering

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Mechanical Engineering (B.M.E.)
At-a-Glance

Minimum hours required for degree:
137 (not including credits earned in the Engineering Cooperative Education Program and Orientation)

Admission to major: Students may select the Mechanical Engineering major once they have been admitted to the Engineering College

Hours required for minor: There is no authorized minor in the Mechanical Engineering Program

Evening program: The Mechanical Engineering evening program offers courses on a two-year cycle

Advising: A designated undergraduate adviser advises students each semester during advising week. Phone: (216) 687-2567

Student organizations:
American Society of Mechanical Engineers, Society of Automotive Engineers, and American Institute for Aeronautics and Astronautics

The professional work of the mechanical engineer falls into three general areas: design, research and development, and management of technical activities. The mechanical engineer draws upon a broad educational background (which includes energy and structures/motion in mechanical systems) and works in diverse areas of employment. Mechanical engineers deal with product design, manufacturing techniques, energy utilization and conversion, thermal system design, and system control. The industries utilizing the mechanical engineer's talents range from automotive, manufacturing, and power generation to aerospace, cryogenic, oceanographic, robotic, and bioengineering sectors.

Young engineers usually begin their career performing design-oriented tasks. As they gain experience and professional maturity, they take on the technical direction of activities that cut across several disciplines. Moreover, they must lay the groundwork for their personal development as productive members of society, responsive to its needs and capable of assuming leadership.

The Mechanical Engineering curriculum reflects the special skills needed for this engineering profession. The curriculum goes beyond the specific technological needs of the field to prepare students for the changing nature of their work and a lifetime of learning. The university course structure blends study in the humanities, social sciences, and the physical and engineering sciences with study in the technical aspects of mechanical engineering. The Cooperative Education Program provides practical engineering experience during the program of study and is highly recommended since it brings students into intimate contact with engineering and aids in career development.

Program objectives:

The Mechanical Engineering Program is designed to produce graduates who:

1. Practice mechanical engineering in fluid thermal/energy conversion and machine system stems of the discipline in private, government or industrial organizations.
2. Practice mechanical engineering in environments that require a variety of roles including engineering problem definitions, application of advanced methods of analysis, problem diagnosing, and solution of real-world engineering design problems that are subject to realistic constraints such as cost, safety, etc.
3. Actively contribute in a multidisciplinary engineering environment.
4. Enhance their knowledge beyond a B.S. level, encouraging them to be a lifelong learner, and keep current with the advancements in engineering and the technology.

Mechanical Engineering students are limited to a total of two grades of D in ESC and MCE courses.

Elective Program:

Three MCE elective courses (including one lab) are required to focus the student's abilities in specific technical areas and provide advanced, application-oriented instruction. The MCE elective courses are listed below.

- **MCE 403 Modeling and Simulation of Mechatronic Systems**
- **MCE 424 Applied Heat Transfer**
- **MCE 425 HVAC**
- **MCE 430 Applied Fluid Mechanics**
- **MCE 444 Applied Combustion Processes**
- **MCE 445 Modern Controls**
- **MCE 446 Principles of Turbomachinery and Applications**
- **MCE 465 Advanced Machine Analysis**
- **MCE 467 Lubrication and Bearing Design**
- **MCE 482 Machine Systems Laboratory**
- **MCE 483 Thermal Systems Laboratory**
- **MCE 484 Mechanical System Laboratory**

- **MCE 485 Fluid Power System Laboratory**
- **MCE 493 Special Topics**
- **MCE 496 Independent Study**

Program for Mechanical Engineering Degree

First Year, Fall Semester	Credits
ENG 101 English I	4
MTH 181 Calculus I	4
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Laboratory I	1
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation *	1
Total	15-16

First Year, Spring Semester	Credits
MCE 102 Technical Writing and Professional Communication	2
MTH 182 Calculus II	4
PHY 241 University Physics I	5
ESC 151 C Programming	3
ESC 270 Materials Science	3
CSC 121 Career Orientation **	1
Total	18

Second Year, Fall Semester	Credits
ESC 250 Differential Equations for Engineers	3
PHY 242 University Physics II	5
ESC 201 Statics	3
IME 250 Material Processing and Metrology	3
IME 251 Material Processing and Metrology Laboratory	1
MTH 283 Multivariable Calculus	2
Total	17

Second Year, Spring Semester	Credits
ESC 350 Linear Algebra and Numerical Methods in Engineering	3
MCE 255 Computer-Aided Engineering Design	4
ESC 202 Dynamics	3
ESC 211 Strength of Material	3
ESC 315 Electrical Engineering Concepts	3
GenEd Elective	3
Total	19

Third Year, Fall Semester	Credits
MCE 305 Kinematics and Dynamics of Machinery	4
ESC 301 Fluid Mechanics	3
ESC 321 Thermodynamics I	3
MCE 371 Vibrations	4
ESC 310 Engineering Statistics and Probability	3
Total	17

Third Year, Spring Semester	Credits
MCE 324 Introduction to Heat Transfer	4
MCE 367 Machine Design I	4

MCE 380 Instrumentation and Measurements Lab	3
MCE 421 Applied Thermodynamics	4
GenEd Elective	3
Total	18

Fourth Year, Fall Semester	**Credits**
MCE 450 Design Project I (Writing)	2
ESC 282 Engineering Economy	3
MCE 441 Introduction to Linear Control Systems	4
PHL 215 Engineering Ethics (Writing)	3
MCE Lab Elective	3
GenEd Elective	3
Total	18

Fourth Year, Spring Semester	**Credits**
MCE 451 Design Project II (Writing)	2
MCE Elective	4
MCE Elective	4
GenEd Elective	3
GenEd Elective	3
Total	16

***Not required for transfer students.*

****Optional course. Required by co-op program.*

Engineering Technology

On this page:

- **Back to Engineering**
- **At-a-Glance**
- **Electronic Engineering Technology**
- **Mechanical Engineering Technology**
- **Engineering Technology Courses**
- **Go to Department of Engineering Technology**

Engineering Technology (B.S.)
At-a-Glance

Degrees Granted:
Bachelor of Science in Electronic Engineering Technology (BSEET) and Bachelor of Science in Mechanical Engineering Technology (BSMET)

Minimum Hours Required for Degree:
129 semester hours (Includes approximately 64 semester credit hours transferred with the Associate of Applied Science degree). This minimum may be reduced by transfer credits equivalent to certain major-field requirements

Admission to Major:
Completion of the Associate of Applied Science (AAS) degree in Electronic Engineering Technology or Mechanical Engineering Technology from a regionally accredited community college, accredited technical institute, or university branch; or completion of the equivalent to major field coursework normally found in AAS degree programs in Electronics Engineering Technology or Mechanical Engineering Technology.

Advising: Contact the department chairperson. Phone: (216) 687-2559

Student Organization:
Federation of Engineering Technology Students (FETS), and American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE).

Additional Information:

The Engineering Technology Department offers two degree programs, leading to a Bachelor of Science in Electronic Engineering Technology (BSEET) or Bachelor of Science in Mechanical Engineering Technology (BSMET). These are junior- and senior-year level baccalaureate degree programs; students must complete the coursework equivalent to an Associate of Applied Science (AAS) degree in electronic or mechanical engineering technology from an accredited college, university or technical institute before beginning to complete the upper two-year courses in the program. Qualified Cleveland State University students who major in a discipline other than Engineering Technology may apply to enroll in upper-division courses.

The 2 + 2 program's primary goal is to provide the student with sufficient skills to obtain immediate employment after completion of the associate degree, while providing a path for furthering education and career opportunities with the completion of the bachelor of science degree.

Engineering Technology students are limited to two grades of D in their major courses to be eligible for graduation.

Students in Engineering Technology may select an option in Robotics requiring them to choose technical elective courses from the list of courses that focuses on that area.

A Bachelor of Science in Engineering Technology graduate is qualified to work in positions requiring the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities.

Cleveland State's Engineering Technology graduates are employed in a diverse range of industries. Most importantly, the programs prepare graduates to contribute immediately in these industries.

Electronic Engineering Technology

Full-Time Program for Electronic Engineering Technology

Fifth Semester, Fall	**Credits**
EET 315 Microprocessors and Digital System Design	3
EET 316 Microprocessors and Digital System Design Lab	1
MTT 300 Applied Math	4
GET 310 Computer System Technology	3
***Adviser's List**	9
Total	20

Sixth Semester, Spring	**Credits**
MTT 301 Advanced Applied Math	4
EET 320 Embedded Microprocessor Systems	3
EET 321 Embedded Microprocessor Systems Lab	1
EET 330 Advanced Circuit Analysis	3

***Adviser's List**	9
Total	20

Seventh Semester, Fall	**Credits**
EET 410 Power Elect. Systems	3
EET 411 Power Elect. Systems Lab	1
EET 415 Electronic Circuits, Signals, and Systems	3
EET 416 Electronic Circuits, Signals, and Systems Lab	1
EET 430 Applications of FPGA and VHDL	3
EET 460 Senior Design A	1
***Adviser's List**	6
Total	18

Eighth Semester, Spring	**Credits**
EET 440 Feedback Control Systems	3
EET 441 Feedback Control Systems Lab	1
EET 480 Senior Design B	3
GET 440 Applications of PLCs	4
***Adviser's List**	6
Total	17
Program Total	**75**

Part-Time Program for Electronic Engineering Technology

Fifth Semester, Fall	**Credits**
EET 315 Microprocessors and Digital System Design	3
EET 316 Microprocessors and Digital System Design Lab	1
MTT 300 Applied Math	4
***Adviser's List**	3
Total	11

Sixth Semester, Spring	**Credits**
MTT 301 Advanced Applied Math	4
EET 320 Embedded Microprocessor Systems	3
EET 321 Embedded Microprocessor Systems Lab	1
***Adviser's List**	3
Total	11

Seventh Semester, Fall	**Credits**
GET 310 Computer System Technology	3
***Adviser's List**	6
Total	9

Eighth Semester, Spring	**Credits**
EET 330 Advanced Circuit Analysis	3
***Adviser's List**	6
Total	9

Ninth Semester, Fall	**Credits**
EET 410 Power Electronics Systems	3
EET 411 Power Electronics Systems Lab	1
EET 430 Applications of FPGA	3
Total	7

Tenth Semester, Spring	Credits
EET 440 Feedback Control Systems	3
EET 441 Feedback Control Systems Lab	1
*Adviser's List	6
Total	10

Eleventh Semester, Fall	Credits
EET 415 Electronic Circuits, Signals, and Systems	3
EET 416 Electronic Circuits, Signals, and Systems Lab	1
EET 460 Senior Design A	1
*Adviser's List	6
Total	11

Twelfth Semester, Spring	Credits
EET 480 Senior Design B	3
GET 440 Applications of PLCs	4
Total	7
Program Total	75

Mechanical Engineering Technology

Full-Time Program for Mechanical Engineering Technology

Fifth Semester, Fall	Credits
MTT 300 Applied Math	4
MET 320 Advanced Mechanics of Materials	3
MET 345 Thermodynamics	4
*Adviser's List	9
Total	20
Sixth Semester, Spring	Credits
MTT 301 Advanced Applied Math	4
MET 330 Advanced Dynamics	4
MET 350 Fluid Mechanics	3
MET 351 Thermal Fluids Lab	2
*Adviser's List	6
Total	19
Seventh Semester, Fall	Credits
MET 410 Design of Machine Components	3
MET 411 Mechanical Measurements Lab	1
MET 420 Heat Transfer	3
MET 445 Solid Modeling Applications	3
MET 470 Senior design A	1
*Adviser's List	6
Total	17
Eighth Semester, Spring	Credits
GET 430 Electric Power, Controls, and Instrumentations	3
GET 431 Electric Power, Controls, and Instrumentations Lab	1
†AoC Selection	3
MET 480 Senior Design B	3
*Adviser's List	9
Total	19
Program Total	75

Part-Time Program for Mechanical Engineering Technology

Fifth Semester, Fall	Credits
MTT 300 Applied Math	4
MET 320 Advanced Mechanics of Materials	3
***Adviser's List**	3
Total	10

Sixth Semester, Spring	Credits
MTT 301 Advanced Applied Math	4
MET 330 Advanced Dynamics	4
***Adviser's List**	3
Total	11

Seventh Semester, Fall	Credits
MET 345 Thermodynamics	4
***Adviser's List**	6
Total	10

Eighth Semester, Spring	Credits
MET 350 Fluid Mechanics	3
MET 351 Thermal Fluids Lab	2
***Adviser's List**	3
Total	8

Ninth Semester, Fall	Credits
MET 410 Design of Machine Components	3
MET 411 Mechanical Measurements Lab	1
MET 420 Heat Transfer	3
Total	7

Tenth Semester, Spring	Credits
GET 430 Electric Power, Controls, and Instrumentations	3
GET 431 Electric Power, Controls, and Instrumentations Lab	1
AoC Selection	3
***Adviser's List**	3
Total	10

Eleventh Semester, Fall	Credits
MET 445 Solid Modeling Applications	3
MET 470 Senior Design A	1
***Adviser's List**	6
Total	10

Twelfth Semester, Spring	Credits
MET 480 Senior Design B	3
***Adviser's List**	6
Total	9
Program Total	**75**

†Area of Concentration (AoC):

Students must select one of the following courses based on desired area of concentration:

- **MET 450 Mechanical System Design**

- **MET 460 Thermal System Design**
- **GET 455 Robotic System Design**

The Adviser's List

The Adviser's List is comprised of the following:

1. Technical Electives—3 courses
   (9-12 credits)
2. Basic Science Elective—4 credits
3. Communications Elective—3 credits
4. University General Education (GenEd) Requirements—9 credits
5. Business Elective — 3 credits
6. Programming Elective — 3 credits

The Engineering Technology Department adviser specifies items 1 and 2. See your adviser to obtain a current listing of applicable courses.

Items 1 and 6 may vary in the number of credits required, if any, depending upon what courses transferred. See your Engineering Technology Department adviser to find out what is applicable.

Fenn College of Engineering: Certificate Programs

On this page:

- **Back to Engineering Certificates**
- **Description**
- **Required Courses**
- **Go to Department of Chemical and Biomedical Engineering**

Biotechnology: Engineering Track (Certificate)

The certificate program in Biotechnology is aimed at students who plan to enter the workforce within the field of biotechnology. The program is designed to complement a bachelor's or master's degree that a student is in the process of completing or has already obtained. The Engineering track prepares students to work within the research and manufacturing segments of biotechnology companies.

Although any student may enroll in the Biotechnology certificate program as long as he or she meets the prerequisites, the Engineering track integrates most smoothly with a major in Chemical Engineering.

Requirements for the Certificate in Biotechnology: Engineering Track

(17-19 credit hours)

Prerequisites: students must be either currently majoring in Chemical Engineering, or taking college course work that includes the following:

- one year of general chemistry,
- two years of calculus and advanced mathematics, *and*
- courses in thermodynamics and material and energy balance.

In addition, the following sequence must also be completed:

- **CHE 466 Biochemical Engineering** (3 credits)
  [*Prerequisite:* ***CHE 306 Transport Phenomena***
  and pre- or corequisite: ***CHE 404 Chemical Reactor Design***]
- **CHE 496 Chemical and Biomedical Engineering Project** (3 credits)
- **BIO 306 Biochemistry and Molecular Biology** (4 credits) *or* **CHM 402 Biochemistry** (3 credits)
- **BIO 308/309 Cell Biology and Laboratory** (4 credits)
- **BIO 416/417 Microbiology Lab** (5 credits) *or* **BIO 435 Techniques in Molecular Biology** (4 credits)

Contact the **Department of Chemical and Biomedical Engineering** at (216) 687-2571 for additional information. See also the alternate tracks in the **Department of Biological, Geological and Environmental Sciences** and the **Department of Operations Management and Business Statistics**.

College of Liberal Arts and Social Sciences

On this page:

- **Back**
- **Introduction**
- **Academic Philosophy**
- **Academic Procedures**
- **General Requirements**
- **Academic Policies**
- **Interdisciplinary Specialization**
- **Interdisciplinary Minors**
- **Certificate Programs**
- **Special Educational Opportunities**
- **Listing of Degrees, Interdisciplinary Specializations and Minors, and Certificate Programs**
- **Major Programs Leading to a Bachelor's Degree**
- **Go to Liberal Arts and Social Sciences Web Site**

Introduction

Studies in the College of Liberal Arts and Social Sciences will prepare individuals for a lifetime of challenges. The college encompasses a wide spectrum of departments in the humanities, the fine and performing arts, and the social sciences. By completing course work in a major field of interest, as well as in a variety of other subject areas, students acquire the analytical, communication, and problem-solving skills vital to critical thinking. Furthermore, students are exposed to diverse points of view and academic disciplines. These can help form values and outlooks conducive to a meaningful life, a rewarding career, and learning and intellectual growth in the future.

Web site: **www.csuohio.edu/class**

College of Liberal Arts and Social Sciences

Academic Philosophy

We will be the vanguard college in attracting and retaining beginning students. Our greatest strength lies in our capacity to adapt current degree programs and develop new ones in response to student demand and community need, consistent with the wide-ranging capacities in the college. The programs we offer are a force for economic, social, and cultural development in the region. We will be a “window on the world” for our students; as the college with the greatest offerings in liberal, international, intercultural, and global studies, we will prepare our students to be responsible local, regional, national and global citizens. Through creativity in the arts and research in the humanities and social sciences, we will teach the practical, personal, and social benefits of higher education to our students and exemplify them to the Greater Cleveland community.

College of Liberal Arts and Social Sciences

Academic Procedures

- **Introduction**
- **Selecting and Declaring a Major**
- **Evening Majors**

Introduction

- **Go to Advising Center Web site**

All students are strongly encouraged to consult with an academic adviser on a regular basis. The Advising Center is located in Room 500 of the University Center building and can be contacted at (216) 687-9376.

The advising staff will provide a wide range of services including information on college and university graduation requirements, information on academic regulations, evaluation of transfer credit, assistance in planning a course schedule, and help in preparing student petitions.

After declaring a major, students should meet regularly with their major-field adviser to discuss course selection and long-range academic and career plans.

Selecting and Declaring a Major

Although Liberal Arts and Social Sciences students must declare a major by the beginning of their junior year, they are encouraged to declare their major as soon as possible. By doing so, students are put into contact with the faculty members who will become their major-field advisers and mentors. By declaring a major early, students will also have more opportunities to work with faculty members and to participate in either the research or creative activities of their academic department.

Major programs may differ in the number and nature of credit hours required. In selecting a major, students should consider their own interests, aptitudes, and professional aspirations. Also, students should pay close attention to university, college, and major-field requirements and plan a schedule to ensure that they do not unnecessarily extend the period of time it takes to complete a degree.

To declare a major, contact the academic department in question and inquire about the process for declaring a major. The Advising Center in Room 500 of the University Center building can provide you with a listing of majors and the appropriate telephone numbers. Call (216) 687-9376.

Evening Majors

The College of Liberal Arts and Social Sciences offers majors for evening students in four areas: **Communication**, **English**, **History**, and **Political Science**. Requirements for these majors, which are the same as those of the day majors, can be found under the heading of each individual department.

Before declaring a major in the evening program, a student should consult with the chairperson of the major department to determine the pattern and frequency of offerings of evening courses. A student should also meet with a faculty adviser on a regular basis to discuss course selections, prepare a timetable for completing degree requirements, and receive advising on educational and career goals.

If a particular major field is not offered in the evening, contact the chairperson of the department to explore if possible alternatives exist.

College of Liberal Arts and Social Sciences

General Requirements

- **Introduction**
- **GenEd Semester Requirements for the College of Liberal Arts and Social Sciences**
- **Foreign Language or Foreign Culture Requirement**
- **Other Requirements**

Introduction

The faculty of the College of Liberal Arts and Social Sciences awards its degrees to students who meet the following general requirements:

Successful completion of a minimum of 128 semester credit hours, of which 42 semester credit hours must be earned in 300- and/or 400-level courses. Credit toward the degree must be earned in: (1) introductory and advanced college courses in the liberal arts and social sciences, (2) those practical and technical courses taught by the departments of this university, and (3) those practical and technical courses acceptable to the departments and curricula of the College of Liberal Arts and Social Sciences. A maximum of 11 semester credit hours of practical and technical courses not meeting conditions 2 and 3 above may be applied toward the total number of semester credit hours required for graduation.

Fulfillment of all university GenEd requirements in the following areas: English composition, mathematics and logic, arts and humanities, social sciences, natural sciences, non-western culture and civilization, Western culture and civilization, African-American experience, human diversity, writing across the curriculum, and the university life course. (**See section on University Requirements** in the chapter on University Regulations.)

Fulfillment of all of the GenEd requirements of the College of Liberal Arts and Social Sciences as set forth in the GenEd semester requirements for the College of Liberal Arts and Social Sciences **presented in this section**.

Achievement of a minimum cumulative grade-point average of 2.00 and other specifications as noted in the **section on Graduation Requirements** in the chapter on University Regulations.

Completion of the requirements, **as set forth in this catalog**, for a major field in the College of Liberal Arts and Social Sciences.

Achievement of a minimum cumulative grade-point average of 2.00 in a major program in the College of Liberal Arts and Social Sciences. (Note: A minimum grade-point average higher than 2.00 may be required by a department. Students must meet the requirements as specified by their major department.)

GenEd Semester Requirements for the College of Liberal Arts and Social Sciences

The GenEd semester requirements for the College of Liberal Arts and Social Sciences are as follows:

English Composition: 6 to 7 semester credit hours.

- **ENG 101**
- **ENG 102**, or approved equivalent

(The passing grade for English 101 and 102 is C or better.)

Mathematics and Logic: 6 semester credit hours.

- (100- and 200-level **mathematics courses**
  - except as noted - offered by the Department of Mathematics or other approved course.) Students may satisfy half of this requirement by completing **PHL 131**.

Arts and Humanities:* 9 semester credit hours.

- (100- and 200-level courses from at least two different departments including the departments of **Art**, **Dramatic Arts**, **English**, **History**, **Modern Languages**, **Music**, **Philosophy** (except logic), and **Religious Studies**, or other approved courses.)

  *Excluded are courses in the performing arts, dramatic arts, studio arts, creative writing, skills courses in first-year foreign language, English grammar, local history or parochial courses and symbolic logic.

Social Sciences:* 9 semester credit hours.

- (100- and 200-level courses from at least two different departments including the departments of **Anthropology**, **Communication**, **Economics**, **Political Science**, **Psychology**, **Social Work**, **Sociology**, **Urban Studies**, courses labeled "Social Science," or other approved courses.)

  *Excluded are noncredit continuing education courses, remedial or developmental courses, specific career preparation courses, mathematics and statistics courses, and life-experience courses.

Natural Sciences:* 8 to 9 semester credit hours.

- (100- and 200-level courses offered by the departments of **Biological, Geological and Environmental Studies**, **Chemistry**, and **Physics**, or other approved courses.) At least one of the courses must have a laboratory component which

must carry at least 1 semester credit hour and meet on the average at least two class hours per week.

*Excluded are remedial or developmental courses, upper-division courses, and technical or pre-technical courses.

Nonwestern Culture and Civilization: 3 semester credit hours.

- (One approved course from either the arts and humanities or the social sciences. If at the 100- or 200-level, the course will also overlap with the university's Transfer Module.)

  If the student chooses to take an additional course, the Nonwestern Culture and Civilization requirement may also be satisfied by an approved 300- or 400-level course; however, the course will not overlap with the university's Transfer Module.

Western Culture and Civilization: 3 semester credit hours.

- (One approved course from either the arts and humanities or the social sciences. If at the 100- or 200-level, the course will also overlap with the university's Transfer Module.)

  If the student chooses to take an additional course, the Western Culture and Civilization requirement may also be satisfied by an approved 300- or 400-level course; however, the course will not overlap with the university's Transfer Module.

Human Diversity and the African-American Experience: 6 semester credit hours.

- Students must take two courses in this field for a minimum of six credits. One course must be an African-American Experience course. The second may be either an additional African-American Experience course or a Human Diversity course.

Writing Across the Curriculum

- Three approved courses. (Where appropriate, these courses may also fulfill other university, college and/or major-field requirements.)

  Note:
  For transfer students: Juniors (60 to 89 semester credit hours) must complete two approved courses; and seniors (90+ semester credit hours) must complete one approved course.

Foreign Language* or Foreign Culture Requirement*

(**See notes following**)

Bachelor of Arts:

All students seeking the B.A. degree must complete two courses in a single foreign language beyond the state entrance requirement. (**See note**)**

The two courses may be intermediate-level foreign-language courses in the same language used to meet the state entrance requirement. Or, students may complete two introductory-level foreign language skills courses in a single foreign language which is different from the one used to meet the state entrance requirement.

Bachelor of Music:

All students seeking a B. Mus. degree must complete two approved foreign culture courses, or two courses in a foreign language beyond the state entrance requirement.

***NOTES**:*

* Students completing three years or more of a single foreign language in high school will have fulfilled this requirement.

** The state entrance requirement is two years of a single foreign language in high school or the equivalent (one year of university study).

Other Requirements

Upper-Division Requirement:

42 semester credit hours.
(The College of Liberal Arts and Social Sciences requires that all students successfully complete a minimum of 42 semester credit hours at the 300- and/or 400-level.)

Introduction to University Life:

1 semester credit hour.
(Must be successfully completed by all newly admitted freshmen. Not required for a transfer student.)

Total Minimum Number of Semester Credit Hours Required:

128 Semester Credit Hours.
(All students must successfully complete a minimum of 128 academic semester credit hours. However, please note that some degree programs may require more than the college minimum. Students must consult with their major-field program.)

College of Liberal Arts and Social Sciences

Academic Policies

- **Earning a Second Degree**
- **Earning a Second Major**
- **Foreign Language Deficiency**
- **Late Adding a Course and Late Registration**
- **Maximum Registration**
- **Special Course Prerequisites**
- **Student Responsibility**

Earning a Second Degree

A student who wants to earn a second baccalaureate degree must meet all requirements of the university, college, and department for the second degree and must earn a 2.00 GPA or better for those hours taken to apply to the second degree. The student may receive both degrees by applying and paying the graduation fee for each.

To earn a second baccalaureate degree, a student whose first baccalaureate degree was earned at another institution must complete all degree requirements of Cleveland State University, the College of Liberal Arts and Social Sciences, and the major-field department. Also, the student must fulfill the minimum credit-hour requirement and distribution for the university's Residency Requirement. (**See chapter** on University Regulations.)

A student may not earn the same baccalaureate degree twice: e.g., two B.A. degrees with different major fields. (**See Earning a Second Major**.) Also, a student majoring in Music cannot be awarded both the B.A. and B.Mus. degrees.

A student who seeks to earn a second degree in business, engineering or science must first apply to and be admitted into the College of Business Administration, the College of Engineering, or the College of Science. In such a case, a student will be matriculating in two colleges and will be subject to all of the requirements and regulations of each college.

Earning a Second Major

Students may elect to complete the requirements for two major fields, provided both majors lead to a Bachelor of Arts degree and are offered by departments in either the College of Liberal Arts and Social Sciences or the College of Science.

In order to have both majors recorded on the transcript, both majors must be listed on the student's Graduation Application. Only one baccalaureate degree will be conferred.

Students who wish to obtain a Bachelor of Arts degree, as well as a Bachelor of Science degree, need to earn a second degree. (**See Earning a Second Degree**.)

Foreign Language Deficiency

The Foreign Language Requirement applies to all undergraduate students, including those who are not native speakers of English and students for whom English is a second language (unless specifically exempted in the **policy on Foreign Language Requirement**; for example, post-baccalaureate students). Such students, if deficient in foreign language studies credits upon admission to Cleveland State University, may remove the deficiency by completion of appropriate courses at Cleveland State (see policy on Foreign Language Deficiency) or by verification of appropriate knowledge of the language through the Department of Modern Languages at the university.

Verification of the student's knowledge of language and culture to remove the deficiency status will be assessed by a faculty member of the Department of Modern Languages who is proficient in the applicable language. In the event no faculty member is proficient in the student's non-English language, the student may request assessment by an individual outside the Department of Modern Languages who has been deemed qualified by said department to assess the student's knowledge of language and culture. Students should consult with the Department of Modern Languages for more information about criteria and guidelines for language and culture assessment.

Late Adding a Course and Late Registration

Students must complete the late registration process by the end of the first week of classes in the semester in which enrollment is sought. Also, students can add courses to their registration only through the second week of classes in the semester in question.

Maximum Registration

The privilege of carrying a maximum load of as high as 18 semester credits per term without petition is granted to any student below the rank of senior who has a grade-point average of 3.25 and to any senior who has a GPA of 3.00.

Students who have less than the required grade-point average, or who wish to take more than18 credit hours, must submit a petition through the Advising Center in University Center Room 500.

Special Course Prerequisites

Courses at the 300- and 400- level in the College of Liberal Arts and Social Sciences may not be taken by freshmen except with the written permission of the course instructor.

Undergraduate students may be granted permission to take one or more graduate courses if all of the following conditions are met:

1. The student must be within 30 semester credit hours of graduation
2. The student must maintain an overall grade-point average of 2.75 or better through the preceding semester

3. The student must have a 3.00 grade-point average in the major field
4. The student must submit, at the time of registration, a completed Permission for an Undergraduate Student to Take a Graduate Course form
5. Postgraduate students should discuss the requirements for taking a graduate course with the College of Graduate Studies.

Student Responsibility

Each student is solely responsible for meeting all curricular requirements and for knowing and following all academic regulations and policies of the College of Liberal Arts and Social Sciences, the university, and the major-field department. Students are urged to review all appropriate sections of this catalog, in particular the chapters on **University Regulations** and **Academic Procedures** and **Academic Policies** for the College of Liberal Arts and Social Sciences.

Petitions for a waiver of a requirement or for an exception to a regulation (either for the college or university) can be obtained from the Advising Office located in the University Center, Room 500.

Although students must assume responsibility for knowing and fulfilling graduation requirements and for knowing and following policies and regulations, advisers are available to assist them. Whenever in doubt, a student should consult with an academic adviser for assistance.

College of Liberal Arts and Social Sciences

In this section:

- **Back to CLASS Page**
- **Description**
- **Required Courses**
- **Go to Communication Web Site**
- **Go to Political Science Web Site**

Political Communication (Interdisciplinary Specialization)

Students majoring in communication and/or political science may select political communication as a specialization. The School of Communication and the Department of Political Science jointly administer the program, which provides students with a systematic and comprehensive orientation to political communication. This orientation will enable students to understand the role of communication in the political process.

Communication processes have always been critical to the evolution of American political institutions. Specific communication practices have helped to create support for a basic set of democratic norms and values, arouse interest and participation by various groups in the election of officeholders at all levels of government, facilitate involvement in and commitment to choices of solutions for social problems, and create support for a particular government regime and its programs.

Professionals operating in the American political process must be prepared to shape their personal impact and the impact of their decisions. It is to facilitate such an objective that this program was developed. The program should especially suit students planning careers in public administration; law; journalism; public information; or as political party organizers, elected officials, and campaign specialists.

Required Courses:

Students interested in this program need to obtain prior written approval from an adviser in the department of their major. Completion of the political communication sequence and the major requirements in one of the two departments involves a minimum of 40 to 44 semester credit hours. A 2.25 GPA must be maintained across all required courses. The specific requirements in addition to those for a major in one of the two departments are:

Communication Majors

1. **Required introductory courses**
    - **COM 101 Principles of Communication**
    - **COM 226 Mass Media and Society**
    - **PSC 317 Political Parties and Elections**
      AND EITHER
    - **COM 303 Communication Inquiry**
      OR
    - **PSC 251 Introduction to Data Analysis**
2. **Required advanced core courses**
    - **PSC 319 Public Opinion**
    - **PSC 402 Campaign Politics Internship** (four to six credit hours. Under special conditions an internship program may be substituted for **PSC 402**
      with approval of the faculty committee.) The internship must be taken in conjunction with **COM 493** Independent Study
    - **COM 347 Political Communication**
    - **COM 455 Communication Campaigns**
    - **COM 496 Independent Study** (four semester credit hours; must be taken in conjunction with **PSC 402**)

Political Science Majors

1. **Required introductory core courses**
    - **PSC 251 Introduction to Data Analysis**
      OR
      COM 303 Communication Inquiry
      AND
    - **PSC 317 Political Parties and Elections**
    - **COM 101 Principles of Communication**
    - **COM 455 Communication Campaigns**
2. **Required advanced core courses**
    - **PSC 319 Public Opinion**
    - **PSC 402 Campaign Politics Internship** (6 credit hours. Under special conditions an internship program may be substituted for **PSC 402** with approval of the faculty committee.)
    - **COM 347 Political Communication**

Electives

Students must complete the introductory core courses in these curricula before they may enroll in the internship program (**PSC 402**). Courses in the advanced core may be taken during the internship, though it is recommended that students complete **PSC 319** and **COM 347**
before the fieldwork. In addition to the required courses, students must take at least one elective in communication and one in political science. Lists of recommended courses follow:

1. Recommended electives in Political Science:
    - **PSC 301 Urban Politics and Policy**
    - **PSC 314 State Government and Politics**
    - **PSC 315 Public Policy and Administration**
    - **PSC 318 The Presidency and Congress**
2. Recommended electives in Communication:
    - **COM 341 Group Process and Leadership**
    - **COM 346 Communication in Organizations**
    - **COM 357 Principles of Public Relations**
    - **COM 366 Communication and Conflict**
    - **COM 370 Communication Technology and Social Change**

The two departments will periodically schedule seminars at which faculty members and outside speakers will discuss relevant topics. Students focusing on political communication will be informed of the seminars and will be expected to attend.

College of Liberal Arts and Social Sciences

Interdisciplinary Minors

The College of Liberal Arts and Social Sciences offers interdisciplinary minor programs of study which encompass course work from several college departments. Such minors are available in the following areas:

- **American Studies**
- **Asian Studies**
- **Black Studies**
- **Criminal Justice (Department of Sociology)**
- **Middle Eastern Studies**
- **Native American Studies**
- **Women's Studies**

American Studies

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- **Required Courses**
- **Go to Department of English Web Site**
- **Go to Department of History Web Site**

American Studies (Interdisciplinary Minor)

American Studies is an interdisciplinary program administered jointly by the departments of English and History. The minor is intended to provide students with a variety of perspectives on American culture, society, and history and to aid them in their understanding of a varied and complex civilization. To this end, students may choose from a variety of academic fields including history, literature, politics, popular culture, society, and the visual arts. A minor in American Studies can serve as a valuable complement to majors in several fields, including but not limited to, Art History, Communication, English, History, Political Science, and Sociology. Students interested in an American Studies minor should contact either the chairperson of the **Department of English** (216) 687-3950, or the chairperson of the **Department of History** (216) 687-3920.

Required Courses:

Students wishing to minor in American Studies must develop a plan of study with the American Studies Steering Committee and must earn at least 20 semester credit hours in approved American Studies courses. The 20 semester credit hours must include:

1. **American Studies Core Courses** (three courses)
    - **HIS 314 Introduction to American Studies**
    - **HIS 111 United States History to 1877**
      or
    - **HIS 112 United States History Since 1877**
    - **ENG 342 Survey of American Literature**
2. **Elective Courses**
    - Other courses will be selected from an extensive list including courses from the departments of **Art**, **Communication**, **Economics**, **English**, **History**, **Philosophy**, **Political Science**, **Religious Studies**, and **Sociology**.

Asian Studies

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- **Go to Interdisciplinary Programs Web Site**

Asian Studies (Interdisciplinary Minor)

The Asian Studies minor is offered by the departments of Anthropology, Art, History, Music, Political Science, and Religious Studies. The program's objectives are to heighten awareness of the rich and diverse histories and cultures of Asia, to stimulate cross-cultural interest among students in the social sciences and the humanities, and to cultivate an appreciation of Asian arts and literatures. *Effective November 2007:* Students interested in an Asian Studies minor should contact the Director, Dr. Qingshan Tan, at 687-9282.

Required Courses:

Students wishing to minor in Asian Studies must complete:

- A minimum of 16 semester credit hours in designated Asian Studies courses from at least three different departments within the College of Liberal Arts and Social Sciences.
- Three courses must be concentrated in offerings related to the study of either South/Southeast Asia or East Asia.
- At least one course must be completed at the 300/400-level in an area other than the area of concentration.

Black Studies

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- **Required Courses**
- **Go to Black Studies Program website**

Black Studies (Interdisciplinary Minor)

The Black Studies minor is an interdisciplinary program administered by the office of the **Black Studies Program**. Courses are offered in the College of Liberal Arts and Social Sciences, the College of Education and Human Services, the College of Science, and the College of Urban Affairs. Since a majority of the courses are offered in departments in the College of Liberal Arts and Social Sciences, the minor in Black Studies is granted by this college. Courses to fulfill the requirements for a minor in Black Studies are to be selected from the 84 Black Studies courses **listed below** which are offered by 20 different departments within the four colleges.

The scope of the Black Studies courses encompasses the study of the history, geography, experiences, contribution, and lifestyles of peoples of African descent. It also covers the myriad aspects and manifestations of the arts and cultures of African peoples on the continent of Africa, and persons of African descent in the United States of America, and in other areas of the African Diaspora.

Students majoring in any discipline may pursue a minor in Black Studies. Upon graduation, students of Black Studies are welcomed into a variety of occupations and graduate and professional schools. Based on data collected by the National Council of Black Studies, Black Studies graduates do particularly well in social service areas, sales, and media communications. There is evidence that students in Black Studies receive substantive aid in their preparation for advanced graduate studies in law, education, social work, public administration, international affairs, social policy analysis, and other areas of study.

Students electing to minor in Black Studies are to inform the director of Black Studies of their intention as early as possible by completing the Declaration or Change of Minor form and submitting it to the director. The director of Black Studies, members of the Black Studies professional staff and/or designated instructors of Black Studies courses shall serve as advisers to students who elect a minor in Black Studies.

Required Courses:

The Black Studies minor requires that 24 semester credit hours be taken in courses designated as Black Studies courses.

1. **Core Courses.**
   The Black Studies minor requires that three core courses be taken from those designated as I, II and III below. Courses in Groups I and III below represent a temporary body of courses which will satisfy two of the core courses until it is possible to offer the permanent core courses. The permanent core courses and their temporary substitutes are listed below.
   I. **Introduction to Black Studies**. One of the following courses is to be elected until the permanent core course has been staffed.
      a. **ANT 270 African-American Culture**
      b. **ENG 207 African-American Literature**
      c. **REL 217 Religion in Black America**
      d. **SWK 150 The Black Experience and Contemporary Society**
   II. **HIS 175 Introduction to African History**
   III. **African-American Culture.**
      One of the following courses is to be elected until the permanent core course has been staffed:
      a. **COM 388 The Rhetoric of Black America**
      b. **HIS 215 The History of African-Americans to 1877**
      c. **HIS 216 The History of African-Americans Since 1877**
      d. **PSC 217 Urban Politics and the African-American Experience**
2. A minimum of 12 credit hours shall be selected from Black Studies courses at the 300-level or higher.
3. Black Studies courses selected to fulfill the requirement of a minor in Black Studies shall be selected from a minimum of three different departments or disciplines.
4. Transfer students planning to minor in Black Studies shall complete a minimum of 12 credit hours in Black Studies courses at Cleveland State University. For transfer students, a minimum of 9 credit hours of upper-level courses shall be completed at Cleveland State University. The transfer of Black Studies credits is subject to the approval of the director of Black Studies or of a person or persons designated by the director.

- **ANT 153 Introduction to African Cultures**
- **ANT 227 Power, Authority, and Society in Non-Western Communities**
- **ANT 270 African-American Culture**
- **ANT 353 Cultures of Africa**
- **ANT 356 Ethiopia**
- **ANT 358 Caribbean Societies**
- **ART 286 Introduction to African Art**
- **ART 386 Regional Art in Africa**
- **ART 388 African-American Art**
- **ART 394 Special Topics in Art History**

- **ART 495 Art Seminar** (Changing Topic)
- **BIO 102 Human Genetics, Reproduction, and Development**
- **BIO 106 Human Biology in Health and Disease**
- **BIO 260 Human Genetics**
- **COM 329 Contemporary Film**
- **COM 332 Interracial Communication**
- **COM 348 Intercultural Communication**
- **COM 359 International Communication**
- **COM 388 The Rhetoric of Black America**
- **COM 428 Imaging Africa**
- **DRA 216 African American Theatre**
- **DRA 318 African American Theatre II**
- **EDB 250 Politics of Black Education**
- **ENF 211 Non-Western Literature in English Translation** (writing)
- **ENG 207 African-American Literature**
- **ENG 208 Womanism/Feminism**
- **ENG 210 Native American Literature**
- **ENG 347 Studies in African-American Literature**
- **FRN 293/393/493 Special Topics in French**
- **FRN 375 Readings in Francophone Literature**
- **HIS 165 Introduction to Latin American History**
- **HIS 175 Introduction to African History**
- **HIS 215 History of African-Americans to 1877**
- **HIS 216 History of African-Americans Since 1877**
- **HIS 227 Power, Authority, and Society in Non-Western Communities**
- **HIS 305 Social Thought of African-Americans**
- **HIS 324 Black Is/Black Ain't: Defining Black America**
- **HIS 325 African America Since 1945**
- **HIS 329 Black Resistance in the Age of Jim Crow**
- **HIS 365 Comparative Slavery**
- **HIS 366 Colonial Latin America**
- **HIS 367 Modern Latin America**
- **HIS 375 Pre-Colonial Africa to 1800**
- **HIS 376 Modern Africa Since 1800**
- **HIS 393 Special Topics in History** - Social History of Brazil
- **MLA 116 Contemporary Non-Western Cultures** - Francophone
- **MLA 204 Non-Western Literature**
- **MUS 107 Jazz Ensemble**
- **MUS 151 Jazz Survey**
- **MUS 441 History of Jazz**
- **NUR 250 Health Problems of African Americans and Other Minorities**
- **PES 154 African Dance**
- **PHL 252 African-American Social Philosophy**
- **PSC 217 Urban Politics and the African-American Experience**
- **PSC 227 Power, Authority and Society in Non-Western Communities**
- **PSC 301 Urban Politics and Policy**
- **PSC 305 Culture Diversity in U.S. Politics**
- **PSC 323 African Politics**
- **PSC 326 Politics of the Third World**
- **PSY 356 Multicultural Psychology**
- **REL 217 Religion in Black America**
- **REL 268 Religion and Culture in Africa**
- **REL 317 Religious Ethics of Malcolm X and Martin Luther King Jr.**
- **SOC 201 Race, Class and Gender**
- **SOC 203 Sociology of Poverty**
- **SOC 210 Introduction to Sociology of the Third World**
- **SOC 215 Black/White Interaction**
- **SOC 380 Racial and Ethnic Inequality**
- **SOC 382 African American Communities**
- **SOC 389 Sociology of Non-Western Societies**
- **SPH 438 Dialect Differences in the Schools**

- **SPN 293/393/493 Special Topics in Spanis**h (when topic is Caribbean)
- **SWK 150 The Black Experience and Contemporary Society**
- **UST 200 Introduction to Urban Studies**
- **UST 202 Cleveland -- Past, Present, Future: The African-American Experience**

Criminal Justice

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- **Go to Sociology Department Web Site**

Criminal Justice (Interdisciplinary Minor)

The Criminal Justice minor is offered by the Department of Sociology. Students take courses in a variety of social-science disciplines and explore different perspectives on crime, corrections, and the law. The minor introduces students to the institutions involved in society's handling of crime. It also is designed to heighten awareness of the theoretical and philosophical issues involved in defining, explaining, and deterring crime and to introduce students to social-science research on the nature and extent of crime.

In conjunction with a major program, the minor in Criminal Justice provides students with the appropriate entry-level qualifications for many professional positions in criminal justice fields, and prepares them for graduate study in criminology or criminal justice. Students interested in minoring in Criminal Justice should contact the chairperson of the **Department of Sociology** (216) 687-4500, who coordinates the minor.

Required Courses:

Students wishing to minor in Criminal Justice must complete three core, one law elective, and three general elective courses from the list below for a minimum of 23 semester credit hours:

1. **Criminal Justice Core Courses**
    - **SOC 250 Introduction to Criminology**
    - **SOC 344 U.S. Criminal Justice Systems**
    - **SWK 240 Administration of Justice**
2. **Law Electives:**
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **SOC 342 Sociology of Law**
    - **SWK 259 The Child, the Family and the Law**
    - **SWK 375 Criminal Law**
3. **Elective Courses:** (A course taken as a law elective cannot also be counted as a general elective).
    - **ECN 350 Economics of Crime and Punishment**
    - **ECN 450 Economics of Law**
    - **PHL 341 Philosophy of Law**
    - **PHL 453 Social, Political, and Legal Philosophy**
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **PSY 345 Abnormal Psychology**
    - **SOC 311 Individual and Society**
    - **SOC 341 Juvenile Delinquency**
    - **SOC 342 Sociology of Law**
    - **SOC 344 U.S. Criminal Justice Systems**
    - **SOC 345 Social Control**
    - **SOC 346 Corporate and Governmental Deviance**
    - **SOC 347 Sociology of Policing**
    - **SOC 348 Sociology of Corrections**
    - **SOC 349 Women and Crime**
    - **SOC 360 Sociology of Interpersonal Violence**
    - **SOC 394 Special Topics in Criminology** (various)
    - **SOC 491 Criminology Internship**
    - **SWK 259 The Child, the Family and the Law**
    - **SWK 341 Corrections: Institutional and Community-Based**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **SWK 470 Problems and Issues in Criminal Justice**

For additional information, contact the chairperson of the **Department of Sociology** at (216) 687-4500.

Middle Eastern Studies

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- **Go to Department of Modern Languages Web site**
- **Go to Department of Political Science Web site**
- **Go to Department of Religious Studies Web site**

Middle Eastern Studies (Interdisciplinary Minor)

The Middle Eastern Studies minor provides a broadly based program that focuses on important Middle Eastern topics in several departments. The United States has a long-term need for a critical mass of professionals in Middle Eastern languages, history, politics and culture, who understand the Middle East, to serve the nation's international relations, diplomatic, homeland security, military and economic needs. No other university in Northeast Ohio has such a program.

This baccalaureate minor provides courses that students can apply toward both the minor and several different majors (Classical and Medieval Studies, English, History, International Relations, Political Science, and Religious Studies). Students should contact an adviser in one of the participating departments: Modern Languages, History, Political Science, or Religious Studies.

Required Courses:

A student seeking a Middle Eastern Studies minor will need to complete one core course (4 credit hours) and demonstrate an intermediate-level skill of an identified and regionally appropriate foreign language. A maximum of 8 credit hours of the minor may come from language instruction. The student will also need to complete a minimum of two courses (8 credit hours) from the list of electives below. The student must complete a minimum of 20 credit hours to complete the minor in Middle Eastern Studies. New courses will be added to the elective offerings.

Credit Hours: 20 credit hours

1. **Core Requirements:**
   Minors in Middle Eastern Studies must complete one core course and demonstrate intermediate foreign-language skills.
   - *Core course:* **ARB**/**HIS**/**PSC** 274 Introduction to the Middle East (4 credit hours)
   - *Language requirement:*
     A student must demonstrate an intermediate-level language skill in a single programmatically appropriate language, including **Arabic**, Hebrew, Turkish or Persian. A maximum of 8 credit hours of language instruction may count toward the minor.
2. **Electives:**
   A student seeking a minor in Middle Eastern Studies must select a minimum of two elective courses from more than one discipline (Modern Languages, History, Political Science, or Religious Studies) identified below:
   - *Language and Culture Courses (Modern Languages)*
     - **ARB 371 Survey of Arabic Literature and Culture** (4 credit hours)
     - **ARB 393 Special Topics in Arabic:** Writing (4 credit hours)
     - **ARB 493 Special Topics* in Arabic:** Culture of al-Andalus (4 credit hours)
   - *History Courses:*
     - **HIS 377 History of Islamic Civilizations** (4 credit hours)
     - **HIS 386 History of the Middle East to 1798** (4 credit hours)
     - **HIS 387 History of the Modern Middle East** (4 credit hours)
   - *Political Science Courses:*
     - **PSC 332 Politics in the Middle East** (4 credit hours)
     - **PSC 339 Political Economy of the Middle East and North Africa** (4 credit hours)
   - *Religious Studies Courses:*
     - **REL 364 Islam** (4 credit hours)
     - **REL 366 Modern Islamic Movements** (4 credit hours)
     - **REL 367 Muslim Relations with Christians and Jews** (4 credit hours) *(Note: effective Spring 2008)*
   - *Study Abroad:*
     - Students may receive credit toward the minor by engaging in a study-abroad program.
   - New elective courses may be added. Students should contact an adviser in one of the participating departments.

*Note: Special Topics courses in any of the disciplines will be considered as meeting the Middle Eastern Studies minor requirements if content is applicable and approved by the program director.

Native American Studies

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- **Go to Department of English Web Site**
- **Go to Department of History Web Site**

Native American Studies (Interdisciplinary Minor)

The Native American Studies minor is an interdisciplinary program that provides students with an introduction to the indigenous peoples of North, Central, and South America and the diversity of Native American communities. A minimum of 20 credit hours, with no more than 12 credit hours coming from any one department, is required.

Required Courses:

Foundations Course (4 credit hours)

- **ANT 210 Introduction to Native American Studies**

Exploration Courses (a minimum of 16 credit hours, with at least 12 credit hours at the 300 or 400 level)
Any courses listed below:

- **ANT 171 Native Civilizations of the Americans**
- **ANT 293 Topics in Anthropology** (when topic is either Maya Hieroglyphic Writing OR Ohio Prehistory)
- **ANT 331 North American Prehistory**
- **ANT 347 Maya Hieroglyphic Writing I**
- **ANT 349 American Indian Languages**
- **ANT 351 Native North Americans**
- **ANT 352 Native South Americans**
- **ANT 357 Peoples and Cultures of Mesoamerica**
- **ANT 366 Native Peoples of the Southwest**
- **ANT 440 Southwest Field Experience**
- **ANT 447 Maya Hieroglyphic Writing II**
- **ANT 496 Independent Study in Anthropology** (with approval of adviser)

- **ENG 210 Native American Literature**
- **ENG 336 Studies in Non-Western Literature** (with approval of adviser)
- **ENG 348 Studies in Multicultural Literature** (with approval of adviser)

- **HIS 310 Indians in American History**
- **HIS 312 17th Century America**
- **HIS 316 History of the American West**
- **HIS 366 Colonial Latin America**

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Women's Studies

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- **Go to Women's Studies page on the Women's Comprehensive Program Site**

Women's Studies (Interdisciplinary Minor)

Women's Studies, administered by the **Women's Comprehensive Program**, is an interdisciplinary program offered jointly by 10 departments and three colleges. Its objectives are: to provide perspective, analysis, and understanding of continuity and change in gender roles and of the profound impact of these role expectations in contemporary society; to recognize contributions of women in academic disciplines and in contemporary society; to increase awareness of the expanding scholarship which focuses on women; to encourage research in neglected areas; and to prepare students for success in an increasingly competitive economy.

Students electing this minor should inform the Women's Comprehensive Program director, who will serve as adviser in cooperation with the Women's Studies faculty.

Women's Studies and You

Students majoring in any field may choose to minor in Women's Studies or to take Women's Studies courses. The U.S. Department of Labor indicates that into the next decade, two out of three new entrants to the labor force will be female and/or minority. This change in women's employment is affecting all other social institutions. Students need to be prepared for leadership in this new labor force. Women's Studies helps students understand reasons for these changes; provides a current, useful perspective for one's chosen employment field; and prepares the student for graduate work in Women's Studies or other professions, and for effectiveness in a changing community and work place. Thus, Women's Studies enhances career preparation and provides a more accurate and balanced view of the society in which the student will serve.

Required Courses:

The Women's Studies minor requires a minimum of 16 credit hours in courses designated as Women's Studies, of which 8 credit hours must be at the 300- to 400-level. There are three distribution requirements:

Courses must be selected from at least three different departments.

1. Courses must include at least one course from the humanities:
    - **ENF 214 Women Writers in English Translation**
    - **ENF 215 Women Writers in English Translation**
    - **ENG 207 African American Literature *when taught by WST faculty***
    - **ENG 208 Womanism/Feminism**
    - **ENG 333 Studies in Restoration and 18th-Century British Literature**
    - **ENG 334 Studies in 19th-Century British Literature**
    - **ENG 335 Studies in 20th-Century British and Anglophone Literature**
    - **ENG 351 Studies in Drama: Bronte Sisters**
    - **ENG 363 Gender Issues in Literature**
    - **ENG 495 Senior Seminar: Emily Dickinson, Jane Austen**
    - **HIS 284 History of Women**
    - **HIS 354 European Women's History**
    - **HIS 393 Special Topics: History of Women in America, History of Black American Women**
    - **PHL 253 Philosophy of Feminism**
    - **REL 260 Women and Religion**
    - **REL 370 Sexual Ethics**
    - **REL 376 Women in Early Christianity**
    - **SPN 484 Latin-American Women Writers in the 20th Century**
2. and, at least one course from the social sciences.
    - **ANT 324 Anthropology of Gender**
    - **ANT 343 Language and Gender**
    - **COM 493 Special Topics: Gender Differences in Language**
    - **EDB 455 Women and Education**
    - **PSY 255 Psychology of Women**
    - **SOC 201 Race, Class, and Gender**
    - **SOC 302 Women in Corporate America**
    - **SOC 310 Sociology of Marriage and the Family**
    - **SOC 317 Sociology of Gender**
    - **SOC 388 Sociology of Work and Organization**

- **SOC 493 Special Topics: Black Women**
- **UST 455 Gender and Leadership**
- **WST 151 Intro to Women's Studies**
- **WST 351 Practicum**
- **WST 393 Special Topics**
- **WST 495 Advanced Seminar: Women's Studies**
- **WST 496 Independent Study**

3. The **Advanced Seminar in Women's Studies (WST 495)** is required for the minor in Women's Studies.

Up to 6 credit hours of advanced independent study, involving investigation of a topic relevant to Women's Studies, will be accepted toward the required credits. Regular procedures for independent study in the given department must be followed. In addition, the director of the Women's Comprehensive Program must approve the prospectus for independent study.

College of Liberal Arts and Social Sciences

Certificate Programs

The College of Liberal Arts and Social Sciences offers several certificate programs. These programs offer a series of courses within a given area of study and permit individuals to develop a well-defined knowledge and/or skills base generally not available in either a major or minor program of study. Certificate programs are not necessarily connected to, and do not lead to, a degree program. They may be completed by either degree-seeking or non-degree students. Certificate programs are available in the following areas:

- **Applied Economics and Public Policy**
- **Arts Management**
- **Bioethics**
- **Central and Eastern European Studies**
- **Criminal Justice with concentrations in Corrections or Law Enforcement (School of Social Work)**
    - **Corrections Concentration**
    - **Law Enforcement Concentration**
- **Criminal Justice (Department of Sociology)**
- **Graphic Design**
- **The History of the African Diaspora**
- **International Studies**
    - **Language and Culture for Global Affairs**
    - **Cross-Cultural Communication**
    - **Language Skills for Business**
- **Journalism**
- **Latin American Studies**
- **Multimedia Advertising**
- **Professional Writing**
- **Science Writing**

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Applied Economics and Public Policy (Certificate)

The certificate program in Applied Economics and Public Policy is designed for students who are interested in current economic issues and the public policy for dealing with these issues. The program is intended for students with minimal previous preparation in economics. With three exceptions, the courses required for the certificate in economics require no more than a background in principles of economics.

To a limited degree, the program is interdisciplinary. One course out of the four required for the program may be taken in either **Sociology** or **Political Science**.

Required Courses:

The program requires students to complete four courses (a minimum of 15 hours). The courses must be selected from the list below and must include at least three courses in economics.

- **ECN 333 Economics of Health Care** (4 hours)
- **ECN 360 Public Sector Economics** (4 hours)
- **ECN 450 Economics of Law** (4 hours)
- **ECN 474 Environmental and Natural Resource Economics** (4 hours)
- **ECN 475 Labor Economics** (4 hours)
- **ECN 482 International Economics** (4 hours)
- **PSC 315 Public Policy and Administration** (4 hours)
- **SOC 203 Sociology of Poverty** (3 hours)

There are two general paths to acquiring the certificate:

For students who have completed **ECN 201** and **ECN 202**, the program can be completed by taking the following three Economics courses and either **SOC 203** or **PSC 315**:

- **ECN 333**
- **ECN 360**
- **ECN 482**
- **SOC 203** or **PSC 315**

For students who have completed **ECN 201**, **ECN 202** and **ECN 302**, the certificate can be earned with any four of the following seven options:

- **ECN 333**
- **ECN 360**
- **ECN 450**
- **ECN 474**
- **ECN 475**
- **ECN 482**
- **SOC 203** or **PSC 315**

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- **Go to Creative Writing**
- **Go to Dance Company**
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- **Go to Music Department**
- **Go to Theater Arts Department**

Arts Management (Certificate)

The Certificate Program in Arts Management is designed for current or prospective administrators of public arts agencies or not-for-profit performing, visual, and literary arts organizations. The program is also beneficial to individuals who plan to continue their academic studies at the master's level in preparation for teaching, research, and/or administrative roles in higher education, museums, and other educational and research-oriented institutions. Those who are, or plan to become, self-employed arts and arts-education consultants will find the program valuable as well.

Required Courses:

Sixteen (16) semester hours of courses in business and fine arts are required to obtain the certificate. The program of study is as follows:

1. Prerequisites:

- **ACT 221 Introductory Accounting I**
- **IST 203 Software Tools for Personal Productivity**

Arts Experience —A **minimum** of 15 semester hours of course work or equivalent practical experience in one of the creative/performing arts

2. Required core courses (6 semester hours):

- **MKT 301 Introduction to Marketing**
- **MLR 301 Principles of Management**

3. Electives (10 semester hours):
Ten hours chosen from any of the following electives, with at least one course chosen from each of the elective areas (Business and Art). The final choice of electives must be approved by an adviser.

Business Electives:

- **FIN 351 Introduction to Financial Management**
- **GAD 250 Business Communication ***
- **MKT 441 Advertising and Promotion Management**
- **MLR 340 Human Resource Management**
- **MLR 443 Entrepreneurship**
- **OMS 311 Introduction to Production Management**

*GAD courses are administered by the Department of Marketing.

Art Electives:

- **ART 405 Museology: Introduction to Museum Studies - Exhibition Planning and Design**
- **COM 225 Media Writing**
- **COM 357 Principles of Public Relations**
- **DRA 381 Theatre Organization and Management**
- **DRA 490 Professional Theater Internship**
- **ENG 301 Advanced Expository Writing**
- **ENG 390 Literary Magazine**
- **UST 410 Proposal Writing and Program Development**

Other elective courses as approved by the various departments.

Note: Several of the courses listed above have prerequisites which must be satisfied in order to take the courses.

For information on specific courses, contact the appropriate department: **Art** (216) 687-2040, **Creative Writing** (216) 687-4522, **Dance Company** (216) 687-4883, **Marketing** (216) 687-4771, **Music** (216) 687-2301, **Theater Arts** (216) 875-9662.

Interested students should obtain a form called the "Arts Management Checklist," available from the Department of Marketing, to track their progress in the program.

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- **Go to Philosophy Department Web Site**

Bioethics (Certificate)

The Undergraduate Certificate in Bioethics is designed primarily for persons preparing for careers in medicine, nursing, social work, psychology, education, one of the health sciences, or other health-related professions. Enrollment will be open to upper-level undergraduates, and others by petition. Both degree-seeking students and non-degree students are eligible. It can also serve upper-level students preparing for careers in law or business who wish to understand health policy, law, and clinical practice in relation to philosophy and ethics. The Certificate in Bioethics will attest that the student has completed a course of study in moral theory and clinical practice, law, or policy related to bioethics.

Required Courses:

The Philosophy Department offers bioethics courses in both two-credit and four-credit formats. Students who have had a four-credit course in a particular area should not take a corresponding two-credit course, and vice versa.

The two-credit courses are:

- **PHL 420 Reasoning in Bioethics: Basic Issues**
- **PHL 421 Reasoning in Bioethics: Contextual Approaches**
- **PHL 422 Clinical Bioethics: Cases I**
- **PHL 423 Clinical Bioethics: Cases II**
- **PHL 424 Bioethics Policy: Prevention and Access**
- **PHL 425 Bioethics Policy: Technology**
- **PHL 426 Bioethics and Law: Regulation**
- **PHL 427 Bioethics and Law: Rights**
- **PHL 428 Bioethics: Special Topics**

The four-credit courses are:

- **PHL 440 Moral Reasoning and Bioethics**
- **PHL 441 Clinical Issues in Bioethics**
- **PHL 442 Policy Issues in Bioethics**
- **PHL 443 Bioethics and the Law**

The program requires a total of 12 semester hours in bioethics at the undergraduate level, distributed as described below, with a grade of at least 3.0 quality points in each:

1. Moral Reasoning Requirement (4 credits), fulfilled by taking:
    - **PHL 440, Moral Reasoning and Bioethics** , 4 credits, OR
    - **PHL 420, Reasoning in Bioethics: Basic Issues**, 2 credits
      AND
      PHL 421, Reasoning in Bioethics: Contextual Approaches, 2 credits.
2. Bioethics Electives (8 credits), chosen from the other courses listed above.

For additional information, contact the **Philosophy Department** at (216) 687-3900.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to Department of History**
- **Go to Department of Political Science**
- **Go to Department of Modern Languages**

Central and Eastern European Studies (Certificate)

The re-emergence of the idea of Central Europe has been one of the most significant developments of this decade. The "lands between," as those countries have been called, have historically been deeply influenced, and at times dominated, by Russia and Germany.

Since the dissolution of the Soviet Union, the reunification of Germany, and the end of the Cold War, Germany's influence in these states has strengthened.

While Germany will play the primary role in the economic and political near-term future of Eastern and Central Europe, the influence and importance of Russia cannot be ignored. A coherent program focusing on Central and Eastern Europe, including Germany and Russia, therefore makes sense. An increasing number of students are focusing on Germany, Russia, and the lands between in their studies. There are also a large number of students and potential students in the Cleveland area whose families originally came from Central and Eastern Europe who might well benefit from this program.

This certificate program should be useful to students across the university to add an international focus to their studies. Members of the Greater Cleveland community, especially those with business interests in the area, may also find this program of particular value.

Required Courses:

Students wishing to earn a Certificate in Central and Eastern European Studies must complete 16 semester hours from the following list of courses. Students must take courses from at least two different disciplines. If the student is completing a major in one of these fields, only one course taken to meet the minimum major requirement may also be counted toward the certificate.

- **ENF 216 Foreign Film** (with appropriate topic)
- **ENF 217 Foreign Film** (with appropriate topic) (WAC)
- **GER 235 Germany Today**
- **GER 240 Field Studies**
- **GER 402 Advanced Composition and Conversation** (when taught as a Culture Course)
- **GER 448 German Culture and Civilization**
- **GER 493 Special Topics in German**
- **HIS 360 History of Russia to 1900**
- **HIS 361 History of Modern Russia**
- **HIS 362 Modern Eastern Europe**
- **HIS 393 Special Topics in History** (with appropriate topic)
- **MLA 115 Contemporary Western Cultures** (with appropriate topic)
- **PSC 324 Russia and The Successor States** (WAC)
- **PSC 338 Central and Eastern Europe** (WAC)
- **PSC 394 Special Topics** (with appropriate topic)
- **PSC 421 Seminar in Comparative Politics** (with appropriate topic) (WAC)

Other special topics courses in these or other departments may be taken with approval of the program committee.

For additional information contact: the **Department of Political Science** (216)687-4541, the **Department of History** (216)687-3920, or the **Department of Modern Languages** (216)687-4645.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Corrections Concentration**
- **Law Enforcement Concentration**
- **Go to the School of Social Work**

Criminal Justice with Concentrations in Corrections or Law Enforcement (Certificate)

The School of Social Work offers a certificate program in Criminal Justice with a concentration in either Corrections or Law Enforcement. The concentration in Corrections helps to prepare a student for work in a career such as probation or parole officer, jail or prison social worker, rehabilitation counselor, or court mediator. The concentration in Law Enforcement helps to prepare a student for work in a career such as police officer, detective, bailiff, deputy, park ranger, federal investigator, or customs agent.

Students enter the program from different backgrounds and with a variety of career objectives in the area of criminal justice. Many are interested in attending law school, some in seeking law-related professions, and others in pursuing an understanding of the relationships among law, society, and the justice system. In addition to traditional students who are seeking to complement their major program of study, those pursuing a certificate in Criminal Justice include police officers, correctional officers, ex-offenders, chemical dependency workers, juvenile justice advisers, community advocates, and social workers. The two concentrations are designed to meet the various objectives sought by such a diverse student population.

Corrections Concentration

The concentration in Corrections prepares students for practice in community-based and institutional corrections programs. The Corrections concentration has core courses that focus on incarceration, community-based corrections, commitment alternatives, equal protection issues, and treatment of offenders.

Requirements for a certificate in Criminal Justice with a concentration in Corrections

Students seeking a concentration in Corrections must complete a minimum of 16 semester credit hours which must include:

1. Criminal Justice required core courses:
    - **PSC 310 Constitutional Law**
    - **SWK 240 Administration of Justice***
      *This course should be taken before the Corrections or Law Enforcement electives.
    - **SWK 470 Problems and Issues in Criminal Justice**
2. One Criminal Justice elective course selected from the listing below:
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 340 Legal Aspects of Human Services**
    - **SWK 341 Corrections: Institutional and Community Based**
    - **SWK 342 Prisoner's Rights**
      AND
      SWK: Any course from the Law Enforcement program excluding **SWK 259**

Law Enforcement Concentration

The concentration in Law Enforcement prepares students for a variety of careers in the criminal justice field and is especially appropriate for students transferring from programs in law enforcement at community colleges, and police officers who wish to further their education.

Requirements for a certificate in Criminal Justice with a concentration in Law Enforcement

Students seeking a concentration in Law Enforcement must complete a minimum of 16 semester credit hours which must include:

1. Criminal Justice required core courses:
    - **PSC 310 Constitutional Law**
    - **SWK 240 Administration of Justice***
      *This course should be taken before the Corrections or Law Enforcement electives.
    - **SWK 470 Problems and Issues in Criminal Justice**
2. One Criminal Justice elective course selected from the listing below:
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **PSC 301 Urban Politics and Policy**
    - **SOC 340 Criminology**

For additional information, contact the **School of Social Work** at (216) 687-4560.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to Department of Sociology**

Criminal Justice (Certificate)

The Criminal Justice certificate, which is administered through the **Department of Sociology**, introduces students to the institutions involved in society's handling of crime. It is also designed to heighten awareness of the theoretical and philosophical issues involved in defining, explaining, and deterring crime; and to introduce students to some of the social-science research on the nature and extent of crime. In addition, the certificate provides students with the appropriate entry-level qualifications for many professional positions in criminal justice fields.

Required Courses:

Students wishing to earn a certificate in Criminal Justice must complete three core courses, one law elective, and one general course elective from the list below for a minimum of 16 credit hours. At least 7 hours must be at the 300-400 level.

1. Required core courses:
    - **SOC 250 Introduction to Criminology**
    - **SOC 344 U.S. Criminal Justice Systems**
    - **SWK 240 Administration of Justice**
2. Law electives:
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **SOC 342 Sociology of Law**
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 375 Criminal Law**
3. Elective Courses: (A course taken as a law elective cannot also be counted as a general elective)
    - **SOC 311 Individual and Society**
    - **SOC 341 Juvenile Delinquency**
    - **SOC 342 Sociology of Law**
    - **SOC 344 U.S. Criminal Justice System**
    - **SOC 345 Social Control**
    - **SOC 346 Corporate and Governmental Deviance**
    - **SOC 347 Sociology of Policing**
    - **SOC 348 Sociology of Corrections**
    - **SOC 349 Women and Crime**
    - **SOC 360 Sociology of Interpersonal Violence**
    - **SOC 394 Special Topics**: Sociology of Prisons
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 341 Corrections: Institutional and Community Based**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **SWK 470 Problems and Issues in Criminal Justice**
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **PSY 345 Abnormal Psychology**
    - **PHL 341 Philosophy of Law**
    - **PHL 453 Social, Political, and Legal Philosophy**
    - **ECN 350 Economics of Crime and Punishment**
    - **ECN 450 Economics of Law**

No more than 4 hours of internship credit may be applied toward this program.
For additional information, contact the chairperson of the **Department of Sociology** at 687-4500.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to Department of Art Web Site**

Graphic Design (Certificate)

The certificate program in Graphic Design prepares students, with or without a baccalaureate degree in art, for the conception and production of two-dimensional graphic designs, with emphasis on the utilization of software for the Macintosh computer. The certificate program is an alternative to a traditional four-year art degree, for creative and self-motivated students who specifically want to develop their technical proficiency, aesthetic sensibility, and design expertise.

Required Courses:

Students seeking a certificate in Graphic Design must complete a minimum of 16 semester credit hours which must include:
Required core courses:

- **ART 244 Introduction to Macintosh**
- **ART 344 Advanced Raster-Image Development**
- **ART 345 Advanced Vector-Image Development**
- **ART 444 Advanced Typography and Design** OR
  ART 445 Introduction to Digital Media

NOTE: **ART 102 (Introduction to 2-D Art and Design)** and **ART 242 (Introduction to Typography)** are prerequisite courses to those required for the certificate.

Additional electives in studio art are strongly recommended.

For additional information, contact the **Department of Art** at (216) 687-2040.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to the Department of History**

History of the African Diaspora (Certificate)

The African Diaspora constitutes one of the largest and most consequential migrations in the history of mankind. This forced migration of over 10 million human beings transformed many areas of Africa and the Americas. This certificate program recognizes the significance of this historical process and its enduring importance as the subject of study. Students are called upon to examine the Diaspora in its comparative perspective by focusing on the history of Africa, the United States and Latin America.

Required Courses:

Students are required to complete 24 semester credit hours (6 courses) of which at least:

- 8 semester credit hours (2 courses) must be in African history
- 4 semester credit hours (1 course) must be in African-American (U.S.) history
- 4 semester credit hours (1 course) must be in Latin American history
- 4 semester credit hours (1 course) must be an Independent Study research project involving any two of the three areas

The remaining course is an elective in one of the three areas.

For additional information, contact the **Department of History** at (216) 687-3920.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Language and Culture for Global Affairs**
- **Cross-Cultural Communication**
- **Language Skills for Business**
- **Go to Political Science Department**
- **Go to Modern Languages Department**

International Studies (Three Certificates)

- **Language and Culture for Global Affairs**
- **Cross-Cultural Communication**
- **Language Skills for Business**

These three certificates provide different approaches to international studies. Language and Culture for Global Affairs focuses on area studies; Cross-Cultural Communication concentrates on the impact of culture on behavior in multicultural contexts; and Language Skills for Business emphasizes the development of commercial language skills.

The **Department of Political Science**
administers the Language and Culture for Global Affairs and the Cross-Cultural Communication certificates. The chair of the Political Science Department meets with each student interested in undertaking either of these certificates and assigns an appropriate adviser on the basis of the student's expressed interest. The Political Science Department will keep records on student progress and issue an appropriate certificate to all students completing either program.

Modern Languages administers the Language Skills for Business certificate and awards the certificate. Students interested in this program should contact the **Modern Languages Department**.

A. Language and Culture for Global Affairs

This is a 16-credit program focusing on the language and culture of one of the following four regions or areas: Western Europe, Asia, Africa and Latin America. Students pursuing majors in Business, Marketing, History, Political Science, Anthropology, Modern Languages, and International Relations will find this certificate offers them an opportunity to establish their capacity to analyze and understand the affairs of a particular world region. Certificate candidates must take one language course focusing on business communications. In addition they must complete at least 12 hours of course work focused on the geographic area of their specialization. Students who choose to study abroad will be able to complete a significant portion of their course work for this certificate through one of the university's summer programs. This approach to the certificate is strongly recommended. For the specific course choices available for each of the four regions, contact the **Political Science Department**, Rhodes Tower 1744, (216) 687-4541.

As a prerequisite to pursuing this certificate, students are required to have intermediate-level knowledge of the target language, either from previous study of the language in high school or from courses taken at the university level.

B. Cross-Cultural Communication Certificate

This is a 14- to 15-credit program in which students learn to interact effectively with persons from different cultures. The emphasis is not on one culture, but rather on becoming aware of cultural differences and learning communication strategies to cope effectively with such differences. The program requires a field-study experience which may take place abroad or at home (for example, working with the Hispanic population of Cleveland). This certificate program is designed for students intending to pursue service-oriented careers that involve contact with culturally diverse populations. Such careers include marketing, business administration, management and labor relations, social work, psychology, communication, sociology, political science, education and the many career options in health-care fields.

There are three components to this certificate: 1) two courses in methodologies of cross-cultural communications, 2) one comparative culture course, and 3) a field study. For the specific course choices available contact the **Political Science Department**, Rhodes Tower 1744, (216) 687-4541.

C. Language Skills for Business

This 14- to 16-credit program is designed for students who plan a career in which they will be actively using a language for professional purposes. The program is comprised of three components:

- A language component (8 credits) where students acquire language skills
- A field study component (3 or 4 credits) where students put their language skills into use while interacting more generally with a foreign culture
- A practical experience component (3 or 4 credits) that may take the form of a practicum, internship, or independent study. This last component requires that students use their second language in a professional context that will most probably take place abroad, although experiences at home may also apply.

For the specific course choices available contact the **Modern Languages Department**, Rhodes Tower 1619, (216) 687- 4645.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to School of Communication Web Site**

Journalism (Certificate)

The Certificate in Journalism at the School of Communication provides undergraduates and professionals with an educational program that exposes students to an array of skills characterizing modern media: writing in various journalistic forms and styles, reporting principles and strategies, editing, ethics, and expertise appropriate to various media. The program introduces students to contemporary practices and theories while integrating traditional skills with emerging technologies, such as the Internet and optional computer graphics and design.

Admission and Completion:

For admission to this certificate program, students must complete the prerequisite course **COM 225 (Media Writing)** with a minimum grade of B- (B-Minus). A 2.25 GPA must be maintained across all required courses (16 credit hours).

Required Courses:

The certificate requires 16 semester hours of core courses in journalism. A list of optional electives allows those who wish to specialize to also focus their program in broadcast journalism. The following courses make up the certificate program.

Prerequisite:

- **COM 225 Media Writing**

Required Courses: (12 credit hours)

- **COM 326 Advanced Reporting**
- **COM 425 Editing and Graphics**
- **COM 426 Lab Newspaper I**

Options: (Choose one course for 4 credit hours)

- **COM 405 Electronic Journalism**
- **COM 427 Lab Newspaper II**
- **COM 490 Internship in Communication**

Suggested electives (not included in the certificate courses):

- **COM 347 Political Communication**
- **COM 359 International Communication**
- **COM 447 Public Relations Writing**
- **COM 493 Special Topics in Communication (when appropriate)**

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to Department of Anthropology**
- **Go to Department of History**
- **Go to Department of Political Science**
- **Go to Department of Modern Languages**

Latin American Studies (Certificate)

The interdisciplinary nature of the program allows students to supplement their majors with relevant skills provided by other disciplines. A History major could demonstrate language and other humanities skills, as well as social science competence, without having to complete a minor in any one (not to mention all) of those areas. Similarly, a Political Science major could add the Latin American Studies certificate to show competence in the humanities.

International business students may well want to concentrate on Latin American Studies to fulfill the requirement for courses outside the College of Business Administration. The certificate program may enhance employment possibilities or satisfy personal interests.

Curricular Philosophy

1. Students must have some common knowledge. This argues for a core, but given the frequency of offerings, it would be impractical to identify mandatory core courses.
2. Students should have the freedom to build a set of courses which provides a personal and professional perspective within the framework of the certificate program.
3. The study of languages is essential for communication across cultures.
4. Study in the country or culture of interest is a preferred avenue to prepare for a career that crosses cultures.
5. Specialization in an area implies effort and achievement beyond minimal standards. A relatively high standard of student work in this certificate affirms the college's quest for continued excellence.

Proposed Curriculum:

(16 semester credits)

A. **Basic Courses**
   - at least 6 credits must come from among the following, and must be in departments other than the student's major(s):
     - **ANT 352 Native South Americans**
     - **HIS 165 Intro. to Latin American History**
     - **PSC 333 Latin American Politics**
     - **SPN 203 Culture and Civilization** (predominantly Spanish America)

B. **Electives** - the remaining credits will be chosen from among these courses:
     - **ART 388 African-American Art** (including Brazilian)
     - **HIS 366 Colonial Latin America**
     - **HIS 367 Modern Latin America**
     - **PSC 326 Politics of the Third World**
     - **SPN 346 Latin American Civilization**
     - **SPN 372 Introduction to Spanish American Literature**
     - **SPN 484 Studies in Spanish American Literature** (sample topic: Theater of Protest in Latin America)

   (or from among the courses in "A" above not counted toward that requirement)
   Other courses may apply toward elective credit with the approval of the Program Committee.

C. All students must fulfill the college foreign-language requirement in either Spanish or Portuguese. In addition, of the courses taken toward the certificate, one must be designated SPN (in Spanish) (or the equivalent in Portuguese). If the student has declared a Spanish major or minor, this requirement will not apply.

D. Foreign study in a Latin American country will be encouraged. Exchange programs will be explored as appropriate through faculty contacts and the director of International Programs. Up to 6 credits of study abroad which is of the nature of the courses in the Basic and Elective curriculum may be applied toward elective credit for the certificate.

E. A minimum cumulative GPA of 2.5 is required for certificate course work. No more than one S/U course may be counted toward the certificate.

For additional information contact: the **Department of Anthropology** 687-2414, the **Department of History** 687-3920, the **Department of Political Science** 687-4541, or the **Department of Modern Languages** 687-4645.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to Art Department**
- **Go to School of Communication**
- **Go to Marketing Department**

Multimedia Advertising (Certificate)

This is an interdisciplinary program jointly offered by the Department of Art and the School of Communication in the College of Liberal Arts and Social Sciences and the Marketing Department in the Nance College of Business Administration. The program provides students with a breadth of information and practical know-how in advertising communication, marketing strategy, graphics, copywriting, and design. It introduces contemporary advertising theories and practices by integrating traditional media, such as print and broadcasting, with new media, such as computer graphics and the Internet.

Required Courses:

The certificate program includes 16 semester hours of core courses in visual art, advertising principles, advertising applications, and marketing analysis. A 2.25 GPA must be maintained across all required courses. The following courses are prerequisites to those required for the certificate.

Prerequisites:

- **ART 102 Introduction to 2-D Art and Design**
- **ART 242 Introduction to Typographic Principles and Design**
- **MKT 301 Introduction to Marketing**

  NOTE: **COM 350 Persuasive Communication and Attitude Change** is recommended as a foundation for the COM courses in this certificate program.

Required Core Courses:

- **ART 244 Introduction to Macintosh**
- **COM 360 Principles of Advertising** OR
  MKT 441 Advertising and Promotion
- **COM 450 Media Programming and Research** OR
  COM 455 Communication Campaigns OR
  COM 460 Advertising Copywriting and Layout Design
- **MKT 420 Buyer Behavior** OR
  MKT 431 Marketing Research

Recommended Electives:

- **ART 344 Advanced Raster-Image Development**
- **ART 345 Advanced Vector-Image Development**
- **ART 444 Advanced Typography and Design**
- **ART 445 Introduction to Digital Media**
- **COM 204 Single-Source Video/Audio Production and Editing**
- **COM 352 Multi-Source Video Production**
- **COM 357 Principles of Public Relations**
- **COM 358 Media Law, Economics, and Ethics**
- **COM 370 Communication Technology and Social Change**
- **MKT 450 Personal Selling and Sales Management**
- **MKT 454 Internet Marketing**

For more information, please contact the appropriate department: **Art Department** (216) 687-2040, **School of Communication** (216) 687-4630, or **Department of Marketing** (216) 687-4771.

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Prerequisite Courses**
- **Go to English Department**

Professional Writing (Certificate)

- **Go to English Department**

The Professional Writing Certificate program is designed to enhance the credentials of students who are preparing for careers in corporate, professional, or technical writing, public relations, advertising, or for other careers in which writing plays an important role. The curriculum includes courses in graphics and design, editing, and other aspects of textual production, as well as in various genres of writing. While the Professional Writing Certificate is offered as an all-elective program, students are advised to select a curriculum that represents more than one aspect of textual production.

Students may earn the Professional Writing Certificate as part of their baccalaureate degree program, or they may add it to their credentials if they already have a baccalaureate degree. The Professional Writing Certificate is not awarded to persons who do not have a baccalaureate degree.

Admission to the Professional Writing Certificate Program

The Professional Writing Certificate program is open to all Cleveland State University undergraduates and graduate students, as well as Cleveland State alumni and students and alumni at other colleges and universities. Students must be enrolled in a baccalaureate degree program, or already have a baccalaureate degree, in order to be eligible for a Professional Writing Certificate.

Prerequisites for Completing a Certificate

Some of the courses in the Professional Writing Certificate program have specific course requirements. Students desiring to take these courses as part of the certificate program must, therefore, take the prerequisites, in addition to the 20 credits required for the certificate. See the **English Department** office staff for the complete description of this certificate program.

To confirm that **requirements for the Professional Writing Certificate** [NOTE: this link opens a Word document] have been met and to arrange for the certification to appear on student transcript, please contact the department secretary at 687-3951.

Professional Writing Certificate Courses

Twenty credit hours, from at least three departments, selected from the following list:

- **ART 242 Introduction to Typographic Principles and Design**
- **ART 244 Introduction to Macintosh**
- **COM 225 Media Writing**
- **COM 326 Advanced Reporting**
- **COM 328 Specialized Writing**
- **COM 357 Principles of Public Relations**
- **COM 361 Advertising Copywriting and Layout Design**
- **COM 405 Electronic Journalism**
- **COM 425 Editing and Graphics**
- **COM 490 Internship in Communication**
- **ENG 301 Advanced Expository Writing**
- **ENG 302 Rhetoric of the Law**
- **ENG 303 Creative Writing**
- **ENG 307 Style**
- **ENG 309 Writing Center Practicum**
- **ENG 310 Traditional Grammar**
- **ENG 361 Classical Rhetoric**
- **ENG 397 Portfolio Preparation**
- **ENG 490 Professional Internship**
- **UST 403 Cartography and Graphics**
- **UST 410 Proposal Writing and Program Evaluation**

College of Liberal Arts and Social Sciences: Certificate Programs

On this page:

- **Back to CLASS Certificates**
- **Description**
- **Required Courses**
- **Go to the School of Communication**

Science Writing (Certificate)

The Science Writing Certificate at the School of Communication provides undergraduates and professionals with the opportunity to develop specialized knowledge in media writing, science reporting, the scientific method and contemporary science. The certificate comprises courses in the School of Communication and the Science College. Students who complete this certificate are expected to have a working knowledge of contemporary scientific concepts and methodological approaches appropriate to their study. Students who successfully complete the certificate will have the tools necessary to explain interesting and complex ideas to a general audience.

About Required Courses:

The certificate requires 18 semester hours. **Science as a Way of Thinking (SCI 220)*** is a course designed for this program. There are 8 hours of core courses in journalism. Students will choose a 6-credit exit project in one of four areas, combining Health Communication, Electronic Journalism, Editing & Graphics or Advanced Public Relations with **COM 493 Science Communication**.

Admission & Completion:

For admission to this certificate program, students must complete the prerequisite course **Media Writing (COM 225)** with a minimum grade of B-. The following courses make up the certificate program. A 2.25 GPA must be maintained across all required courses.

Prerequisite:

- **COM 225 Media Writing**

Required Courses:

- **SCI 220 Science as a Way of Thinking**
- **COM 326 Advanced Reporting**
- **COM 485 Science Writing**

Exit Options:

- **COM 493 Special Topics (Science Communication)**

  Choose one of the following to be taken in conjunction with COM 493:

- **COM 362 Health Communication**
- **COM 405 Electronic Journalism**
- **COM 425 Editing & Graphics**
- **COM 447 Public Relations Writing**

  (COM 405 and COM 447 have other prerequisites.)

  *** Note:**
  Students must satisfy the university's General Education Requirements in Natural Science. Thus, students must complete **SCI 220**
  in addition to their two GenED science courses, one of which must include an approved laboratory component.

College of Liberal Arts and Social Sciences: Special Educational Opportunities

In this section:

- **Back to CLASS Page**
- **Articulation Agreements**
- **Credit by Examination**
- **Distance Learning**
- **Independent Study**
- **Internships**
- **Off-Campus Course Offerings**
- **Study Abroad**
- **Summer Programs**
- **Teacher Licensure**

Articulation Agreements

The College of Liberal Arts and Social Sciences has Articulation Agreements with Cuyahoga Community College and other area institutions for those students who complete an Associate of Arts degree in several fields, including Communications, Sociology and Social Work. The Articulation Agreement enables qualified students to earn a baccalaureate degree in approximately two years of full-time study and facilitates the transfer of credits. Interested students should contact their adviser or the **Cleveland State University Advising Center**, at 687-9376.

Credit by Examination

Departments within the College of Liberal Arts and Social Sciences can determine if credit by examination is available for a specific area of study. The subject material to be covered, the method of examination, the minimal acceptable score/grade for passing, and the number of semester credit hours to be granted will be determined within the academic departments. Credit by Examination forms are available in the **Advising Center** which is located in University Center, Room 500.

Distance Learning

During the academic year, the College of Liberal Arts and Social Sciences offers some of its regular courses via distance learning. One form of this type of technology is the use of "smart-classrooms" which are located on campus and which permit the interactive video transmission of course lectures (IVDL). In another form, course lectures are sent via public television, and some Web-based courses are available in whole or in part, on the World Wide Web.

The electronic offering of courses will enable some students to take courses and complete assignments while remaining at home. (Some on-campus contact with the course instructor is usually a part of the course.) These courses are listed in the university's course schedule and are footnoted as distance-learning (or IVDL) courses. All courses delivered in such a manner are part of the college's regular course offerings and will fulfill the appropriate university, college, or major-field requirements.

Independent Study

All of the departments of the College of Liberal Arts and Social Sciences can offer credit for independent study conducted under the supervision of a member of the college's faculty. A student should contact the chairperson of the appropriate department or a specific faculty member to inquire about an independent study.

Independent study is arranged by contract with the permission of a specific professor. This contract includes specifications about the quantity and quality of work expected and semester credit hours to be granted. In general, an independent study is intended for scholarly work not included in a department's formal course offerings, and should be offered only when a formal course is not available.

Although neither the university nor the College of Liberal Arts and Social Sciences has a limit on the number of independent study courses which may be applied toward graduation, individual academic departments can limit the number which may be applied toward the major and/or minor.

Internships

Many departments within the College of Liberal Arts and Social Sciences provide students with internship opportunities which will place students into actual work settings that may be related to a student's educational and career interests. Knowledge and skills learned in the classroom setting may be applied to the work situation. Likewise, the experience gained in hands-on activities may be brought back into the classroom and complement the academic component of course work. The academic department retains the right to determine if an internship will be available, requirements for eligibility, number of credits to be granted, and the quantity and quality of work to be completed for a passing grade. For information on the availability of internships, a student should contact the chairperson of the appropriate academic department.

Off-Campus Course Offerings

The College of Liberal Arts and Social Sciences offers several different off-campus formats. The college offers junior- and senior-level courses to students in several off-campus locations including two Cleveland State centers: West Center in Westlake and East Center in Solon. These off-campus course offerings demonstrate the college's commitment to improving student access to the educational resources of the university.

PSEOP

(Post Secondary Education Opportunities Program) permits qualified high-school students to take college-level courses. PSEOP students have enrolled in courses in areas such as art history, early Western art, calculus, English composition, and English literature. (For additional information, contact the **Advising Center** at 687-9376.)

- **See PSEOP Web site**

Study Abroad

Study-abroad opportunities are available through various departments and programs within the College of Liberal Arts and Social Sciences and are coordinated by the **Center for International Services and Programs** (687-3910) and the Office of the Dean of the College. The academic departments which offer study-abroad opportunities include, but are not limited to: Art, History, Modern Languages, Music, Political Science and Social Work.

The study-abroad opportunities have provided Cleveland State University students with a wide variety of experiences, including archaeological field work on the Mayan civilization; culture and language studies in Mexico and Spain; historical studies of WWI battlefields in Europe; social welfare issues in Germany; and contemporary issues in India.

Also, the Center for International Services and Programs encourages and assists students and other members of the university community in arranging programs of study at foreign institutions in countries such as Brazil, France, Germany, and Poland, as well as other less formal experiences abroad.

The coordinator of the center can assist with financial-aid arrangements, recommend appropriate programs (generally those affiliated with American universities from which credit is transferable) and assist with arrangements. Students who wish to earn credits abroad must consult with and work through the coordinator. Approved courses taken as part of the study-abroad experience may, where appropriate and approved by the academic unit, apply toward university, college, and/or major-field requirements. The option of taking approved courses for graded credits and having these grades count in a student's grade-point average is also available.

A guide to study-abroad opportunities is available from the coordinator of the **Center for International Services and Programs** which is located in University Center, 2121 Euclid Avenue, Room 302.

Summer Programs

During the summer semester, the College of Liberal Arts and Social Sciences will offer many of its regular courses and will make available to students a number of courses of special and timely interest. Also, the college will offer intensive courses in areas such as French or Spanish. An intensive course may permit a student to complete one year of academic work in a specific subject within the summer semester. Consult the summer **course schedule** for a listing of these offerings.

Also, some of the study-abroad opportunities noted in this section are offered in the summer semester and will be listed in the course schedule.

Teacher Licensure

Secondary Licensure

Students seeking secondary-school teaching licensure are enrolled in the College of Liberal Arts and Social Sciences. They complete one of the major fields which is eligible for state certification, earn their degree from the College of Liberal Arts and Social Sciences, and take the necessary education courses in their junior and senior years under the supervision of the College of Education and Human Services. For a listing of the academic areas eligible for state secondary certification, refer to the chapter for the **College of Education and Human Services** in this catalog.

College of Liberal Arts and Social Sciences

Major Programs Leading to a Bachelor's Degree

- Bachelor of Arts:
  - **Anthropology**
  - **Art**
  - **Classical and Medieval Studies**
  - **Communication** *(available in the evening)*
  - **Communication Management**
  - **Criminology**
  - **Dramatic Arts**
  - **Economics**
  - **English** *(available in the evening)*
  - **Film and Digital Media**
  - **French**
  - **German** (suspended; minor is available)
  - **History** *(available in the evening)*
  - **International Relations**
  - **Journalism and Promotional Communication**
  - **Liberal Studies**
  - **Linguistics**
  - **Music**
  - **Philosophy**
  - **Political Science** *(available in the evening)*
  - **Religious Studies**
  - **Social Science**
  - **Social Studies**
  - **Sociology**
  - **Spanish**
  - **Women's Studies**
- **Bachelor of Music**
- **Bachelor of Social Work**

Anthropology

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  Required Courses
- **Native American Studies Minor**
- **ANT Courses**
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Anthropology (B.A.)

At-a-Glance

Admission to the major: No requirement other than good academic standing in the College of Liberal Arts and Social Sciences

Minimum hours required for major: 40

Minimum hours required for minor: 20

Subfields: Archaeology, biological/physical anthropology, cultural anthropology, and linguistic anthropology

Advising: Students are encouraged to select a faculty adviser when they declare the major or minor in anthropology. *The Handbook for Anthropology Majors and Minors*, available from the Anthropology Department, Chester Building 119, contains comprehensive information regarding program requirements.

Awards:
In recognition of academic excellence, the Anthropology High Academic Achievement Award is presented to seniors who have achieved a grade-point average in their major courses at the highest honor level, 3.8 or above.

Student organization: CSU Anthropology Association

Anthropology is the study of the biological and cultural diversity of humanity. American anthropology has four broad subfields. *Archaeology* examines the physical records of past cultures. *Biological or physical anthropology* is concerned with human evolution and modern human biological variation. *Cultural anthropology* focuses on the customs, traditions, and rituals of human societies. *Linguistic anthropology* explores the relationship between language and culture in past and present human societies.

Anthropologists study contemporary and past societies as well as human evolution. They usually specialize in one or more geographic areas of the world, such as Mesoamerica, Oceania, or Africa. They may also focus on particular populations and locales and do field research in those areas. Cleveland State anthropologists have conducted research on the ancient Maya civilization in Belize, the Nambicuara Indians of Brazil, the Amhara of Ethiopia, griots and language in Mali, the indigenous trade languages of Papua New Guinea, and the white minority of the English-speaking Caribbean.

The Anthropology Department offers training in all four subfields of anthropology. Specialized training and hands-on experience is available through independent study projects and participation in on-going faculty research projects in archaeology, human paleontology, forensics, visual anthropology, ethnography, and sociolinguistics. Fieldwork experience and laboratory analysis are central parts of the curriculum.

Students may also enroll in a variety of special topics and independent study courses; however, there are limits on the number of credit hours of independent study courses that may be used to fulfill requirements for the major and minor.

Anthropology majors are encouraged to explore other academic disciplines in conjunction with their anthropology focus. Many students complete a second major or a minor in another field of study, such as biology, geology, education, linguistics, psychology, or urban studies. Conversely, a minor in anthropology is an excellent complement to majors in other disciplines. Anthropology courses are also offered in several interdisciplinary programs, including Asian Studies, Black Studies, Gerontological Studies, Linguistics, Native American Studies, and Women's Studies.

Majors who anticipate pursuing graduate study in anthropology should plan to gain substantial foreign-language training as undergraduates. All anthropology students are encouraged to acquire training in computer and information sciences and to develop writing skills that exceed present minimum university requirements.

The bachelor's degree in anthropology prepares students for careers requiring "people skills" and/or an understanding of cultural differences. It is especially useful in professions requiring a strong social-science background, such as law enforcement, social work, and health care. It also provides a strong foundation for graduate study in anthropology and other disciplines.

A graduate degree is required for most professional jobs in anthropology and archaeology. A second undergraduate degree or a graduate degree in another field, such as business, education, political science, sociology, communication, urban studies or public administration, will enhance employment opportunities.

Cleveland State graduates are employed in a variety of fields including community and public relations, education, health and social services, law and law enforcement, and marketing and sales. A significant number of our graduates have traveled to other countries to teach English or serve in the Peace Corps.

Requirements for Transfer Students

Transfer students must complete a minimum of 16 credit hours of anthropology courses at Cleveland State for the major and a minimum of 8 credit hours for the minor.

Major-Field Requirements

A minimum of 40 credit hours is required for the anthropology major. A grade of C or better must be earned in courses used to fulfill requirements for the major.

Required Courses:

Foundations in Anthropology (8 credit hours)
Both courses:

- **ANT 101 Human Biocultural Evolution**
- **ANT 102 Study of Culture**

Anthropology Core Courses (16 credit hours)
All four courses:

- **ANT 301 Biological Anthropology**
- **ANT 302 Archaeology**
- **ANT 303 Cultural Anthropology**
- **ANT 304 Linguistic Anthropology**

Area Studies in Anthropology (4 credit hours)
Any course in this category:

- **ANT 351 Native North Americans**
- **ANT 352 Native South Americans**
- **ANT 353 Cultures of Africa**
- **ANT 354 Cultures of Oceania**
- **ANT 356 Ethiopia**
- **ANT 357 Peoples and Cultures of Mesoamerica**
- **ANT 358 Caribbean Societies**
- **ANT 366 Native Peoples of the Southwest**
- **ANT 393 Area Studies in Archaeology**
- **ANT 394 Area Studies in Anthropology**
- **ANT 453 Advanced Studies in African Cultures**
- **ANT 494 Advanced Area Studies**

Senior Seminar (4 credit hours)

- **ANT 495 Senior Seminar in Anthropology**

Anthropology Electives (8 credit hours)

- Any anthropology courses at or above ANT 150, with only 4 credit hours in lower-level courses (ANT 150-300).

No more than 8 credit hours of **ANT 496 Independent Study** may be used to fulfill requirements for the anthropology major.

Anthropology Minor

A minor in anthropology complements majors in disciplines such as biology, geology, linguistics, psychology, and urban studies. A minimum of 20 credit hours is required for the anthropology minor. A grade of C or better must be earned in courses used to fulfill requirements for the minor.

Required Courses:

Foundations in Anthropology (4 credit hours)
Either course :

- **ANT 101 Human Biocultural Evolution**
- **ANT 102 Study of Culture**

Anthropology Core Course (4 credit hours)
Any course in this category:

- **ANT 301 Biological Anthropology**
- **ANT 302 Archaeology**
- **ANT 303 Cultural Anthropology**
- **ANT 304 Linguistic Anthropology**

Anthropology Electives (12 credit hours)

- Any anthropology courses at or above ANT 150, with only 4 credit hours in lower-level courses (ANT 150-300).

No more than 4 semester hours of **ANT 496 Independent Study** may be used to fulfill requirements for the anthropology minor.

Native American Studies Minor

The Native American Studies minor is an interdisciplinary program that provides students with an introduction to the indigenous peoples of North, Central, and South America and the diversity of Native American communities. A minimum of 20 credit hours, with no more than 12 credit hours coming from any one department, is required.

Required Courses:

Foundations Course (4 credit hours)

- **ANT 210 Introduction to Native American Studies**

Exploration Courses (a minimum of 16 credit hours, with at least 12 credit hours at the 300 or 400 level)
Any courses listed below:

- **ANT 171 Native Civilizations of the Americans**
- **ANT 293 Topics in Anthropology** (when topic is either Maya Hieroglyphic Writing OR Ohio Prehistory)
- **ANT 331 North American Prehistory**
- **ANT 347 Maya Hieroglyphic Writing I**
- **ANT 349 American Indian Languages**
- **ANT 351 Native North Americans**
- **ANT 352 Native South Americans**
- **ANT 357 Peoples and Cultures of Mesoamerica**
- **ANT 366 Native Peoples of the Southwest**
- **ANT 440 Southwest Field Experience**
- **ANT 447 Maya Hieroglyphic Writing II**
- **ANT 496 Independent Study in Anthropology** (with approval of adviser)

- **ENG 210 Native American Literature**
- **ENG 336 Studies in Non-Western Literature** (with approval of adviser)
- **ENG 348 Studies in Multicultural Literature** (with approval of adviser)

- **HIS 310 Indians in American History**
- **HIS 312 17th Century America**
- **HIS 316 History of the American West**
- **HIS 366 Colonial Latin America**

Art

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Art (B.A.)

At-a-Glance

Minimum hours required for major: 48

Minimum hours required for minor: 24

Special tracks: Art history, studio art, art education

Advising: Professor in each major track area. Department office phone: (216) 687-2040

Student organizations:
Student Organization for Fine Arts (SOFA); Student Educators Teaching Art (SETA); Student Chapter of American Institute of Graphic Artists (AIGA).

Additional information: Honors program. Scholarships based on merits awarded each year up to full tuition.

The creation of art and the study of its history are complementary activities that deepen a student's understanding of the aspirations of humankind. To develop both artistic skills and critical appreciation of art, the Art Department offers a broad range of courses in studio art, art history, and art education for both non-majors and majors. The Art Department also offers a minor. Art Department courses can be taken for personal enrichment, to fulfill university and college graduation requirements, and to prepare for advanced graduate-level study.

The course offerings are wide-ranging. For example, in studio art a student can select foundation courses in basic design and drawing, then more specialized studies of drawing, painting, sculpture, printmaking, photography, ceramics, and computer graphics. In art history, there is an introductory course in art appreciation and surveys of world art, including Western, Asian, and African art. More specialized studies include courses in ancient, Medieval, Renaissance, and modern art; Indian, American and African-American art; Western architecture, cities and planning; and Cleveland's urban environment. Art education offers a course that examines assessment models, and another course that studies art instruction and philosophy in different socio-vocational contexts. By selecting from these offerings, students can pursue a program of study for their general knowledge, professional career, or graduate work.

With the counsel of a faculty adviser in the Art Department, students wishing to major in art may elect a program from one of three curricular options: studio art, art history, and art education. For the Bachelor of Arts degree, all art majors are required to take a core curriculum of subjects for general preparation and additional hours of upper-level courses for diversification.

Requirements for Transfer Students

Transfer and non-degree students should submit a portfolio to the Art Department in order for a placement level to be determined. Students are encouraged to do this during the semester before their anticipated enrollment.

Major-Field Requirements

- **Studio Art**
- **Art History**
- **Art Education**

Art majors in Studio Art and Art History are required to take 24 credit hours of core curriculum courses. The core consists of 12 credit hours in Studio Art and 12 credit hours in Art History. In addition, they must elect a curricular option.

Art Major (Studio Art)

Core Curriculum:

- **ART 102 Introduction to 2-D Art and Design** (4 credits)
- **ART 103 Introduction to 3-D Art and Design** (4 credits)

- **ART 211 Drawing I** (4 credits)
- **ART 252** or **ART 253** (Western Art) (4 credits)
- **ART 281** or **ART 286** (Non-Western Art) (4 credits
- **ART 495 Art Seminar** (4 credits)

Curricular Options:

The option in Studio Art requires satisfactory completion of 24 credit hours beyond the core curriculum. Students take a sequence of 200-, 300-, and 400-level courses in one of the following areas: ceramics, drawing, painting, photography, printmaking, sculpture, or graphic design. Additional studio electives are required in all studio sequences except graphic design. The cumulative total of the core and studio sequence must be 48 credit hours minimum.

Art Major (Art History):

Core Curriculum:

- **ART 102 Introduction to 2-D Art and Design** (4 credits)
- **ART 103 Introduction to 3-D Art and Design** (4 credits)
- **ART 211 Drawing I** or **ART 226 Sculpture I** (4 credits)
- **ART 252 Introduction to Early Western Art** (4 credits)
- **ART 253 Introduction to Western Art Since 1400** (4 credits)
- **ART 281 Introduction to Far Eastern Art** or **ART 286 Introduction to African Art** (4 credits)

Curricular Options:

The option in Art History requires satisfactory completion of 24 credit hours beyond the core curriculum. These should consist of 16 credit hours in Art History at the 300 or 400 level, 4 of which must be non-Western, and 8 credit hours in Art Seminars (**ART 495**). The cumulative total of the core and Art History sequence must be 48 credit hours minimum. Art majors in Art History must also complete 4 semesters in German, French, an approved alternate language or two-year equivalency.

Art Major (Art Education: Multi-Age Licensure)

The option in Art Education requires satisfactory completion of 36 hours in Art Studio courses, including a three-course sequence (200, 300, 400 levels) in one studio area and **ART 226** OR **ART 246**, **ART 221**, **ART 231**, and **ART 242** OR **ART 244**, 16 hours in Art History courses (including **ART 252** and **ART 253**, and **ART 281** OR **ART 286**) and 8 hours in Art Education courses (**ART 341** and **ART 441**). The cumulative total must be 60 hours. Also required for licensure are 42 credit hours in professional education and art education courses taught in the College of Education and Human Services.

Art Minor

In addition to the major program, the Art Department offers a minor in both Studio Art and Art History for those interested in art as a secondary field. All minors are required to take a curriculum of 24 credit hours to be determined in consultation with a faculty adviser in the Department of Art. Art majors cannot also minor in Art.

Studio Art

This option requires satisfactory completion of the following requirements: **ART 102**, **ART 103**, either **ART 252** OR **253**, for a total of 12 credit hours; and one studio sequence including one 200-level, one 300-level, and one 400-level course for a minimum total of 24 credit hours.

Art History

This option requires satisfactory completion of the following requirements: **ART 102**, **ART 103**, **ART 252** for a total of 12 credit hours; **ART 253**
plus one 300-level and one 400-level Art History course, (one of which must be non-Western), for a minimum total of 24 credit hours.

Honors Program

- **Studio Art**
- **Art History**
- **Art Education**

Studio Art

Students of junior or senior standing who have a critical understanding of their discipline(s); and have a 3.00 cumulative grade-point average and a 3.50 average in Studio Art, may be invited by a committee of three faculty members, including the chairperson, to take this option.

Acceptance demands 12 credit hours in Studio Art beyond the curriculum requirements, 4 credit hours of which would include a portfolio review by a studio committee consisting of three studio faculty members. Successful completion of the program qualifies the candidate for graduation with honors in Studio Art.

Art History

Students of junior or senior standing who have shown independent critical understanding while fulfilling all core requirements; have a 3.00 cumulative grade-point average with a 3.80 average in Art History; and have met the language requirement, may be invited by a committee of four faculty members, including the chairperson, to take this option.

Acceptance demands at least 12 upper-level credit hours in Art History beyond curricular requirements, including the required thesis credit hours, and at least one non-Western field. Successful completion of an oral comprehensive examination in the defense of the thesis qualifies the candidate for graduation with honors in Art History.

Art Education

Students of junior or senior standing who have shown independent critical understanding of their discipline, and have a 3.00 cumulative grade-point average with a 3.80 average in Art Education and educational core requirements, may be invited by the art education faculty to take this option.

Acceptance demands 12 upper-level credit hours in Art Education beyond the curriculum requirements, including the thesis credit hours and supplemental independent study, and Art Education courses in research and/or curriculum development. Successful completion of the program qualifies the candidate for graduation with honors in Art Education.

Teacher Licensure

The Art Department, in cooperation with the College of Education and Human Services, offers a program leading to a Provisional Multi-Age Licensure requiring completion of courses as prescribed by the Department of Art, with professional education studies as prescribed by the College of Education and Human Services.

For information concerning professional art and art education courses, students should confer with an adviser in the Art Department. For information concerning general education and professional education requirements for licensure, see the **College of Education and Human Services chapter** of this catalog.

Certificate Program: Graphic Design

This program prepares students, with or without a baccalaureate degree in art, for the conception and production of two-dimensional graphic designs, with emphasis on the utilization of software for the Macintosh computer. The certificate program is an alternative to a traditional four-year art degree, for creative and self-motivated students who specifically want to develop their technical proficiency, aesthetic sensibility, and design expertise.

The certificate program requires 16 credit hours in the Department of Art. **ART 102** (Introduction to 2-D Art and Design) is prerequisite for all other courses. The required courses include **ART 244** (Introduction to Macintosh), **ART 344** (Advanced Raster-Image Development), **ART 345** (Advanced Vector-Image Development), and **ART 444** (Advanced Typography and Design) OR **ART 445** (Introduction to Digital Media).

The Art Department also participates in interdisciplinary certificate programs in Arts Management and Multimedia Advertising. **See Certificate Programs** in this chapter of the catalog for additional information.

Evening Program

The Art Department offers a limited selection of courses in the evening each academic year, but at this time students cannot expect to complete a major or minor in Art with evening courses alone.

Classical and Medieval Studies ("CLAM")

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Classical and Medieval Studies (B.A.)

At-a-Glance

Admission to major: Good academic standing

Minimum hours required for major: 36

Minimum hours required for minor: 18

Advising:
Freshmen, sophomores, and transfer students, as well as other interested students, should contact the CLAM director as early as possible to be assigned a faculty adviser. The CLAM director is Dr. Laura Wertheimer; RT 1936; phone 687-3930; e-mail **l.wertheimer@csuohio.edu**.

Additional information:

The Classical and Medieval Studies program
at Cleveland State University (CLAM) is an interdisciplinary program drawing upon the faculty of eight academic areas within the College of Liberal Arts and Social Sciences: Art, English, History, Modern Languages, Music, Philosophy, Religious Studies, and Dramatic Arts. The CLAM program offers a Bachelor of Arts degree, a minor, and also provides courses for students in other majors with interests in the classical and medieval periods.

Why CLAM?

Students within the CLAM program study a rich and varied range of cultures that existed within the ancient and medieval civilizations of the Mediterranean world, Europe, and the Middle East. These civilizations were dynamic, varied, and constantly changing as they developed internally and as they interacted with each other in the domains of politics, commerce, warfare, religion, philosophy, and the arts. Many of our heterogeneous cultural traditions in North America trace their origins to the civilizations of this period, among them our democratic idealism and republican institutions, Judeo-Christian and Islamic religious traditions, and many of our traditions in philosophy, the arts, architecture, and literature.

During the course of their work, students learn the particular methodologies and approaches of a variety of academic disciplines, such as history, philosophy, philology, literature and art. Completion of the CLAM major therefore also provides students with a solid background in the liberal arts. The CLAM major, aside from satisfying personal interests, prepares students for a variety of academic and professional pursuits. CLAM students pursue careers in teaching, law, archeology, religious ministry and education, and museum and archive work to name a few. Many of the courses taken to satisfy the CLAM major requirements will also meet college or university general education requirements; in many instances, a CLAM student will be able to complete a double major by taking only a few additional courses in one of the participating departments.

Major-Field Requirements

The CLAM major requires 36 credit-hours of coursework, including at least 2 courses in each of three separate academic fields of study; 24 of these credit-hours must be at the 300 or 400 level. Students must design, in consultation with their adviser, a coherent program of study. Courses must be CLAM-designated courses selected from language courses (e.g., Latin, Greek, Arabic, Hebrew), literature (English, modern languages), history, the arts (art history, dramatic arts, music), religious studies, philosophy, and classical and medieval studies. The CLAM major has no specific language requirement, but students are advised that most graduate programs in classics or medieval fields have language requirements for admittance. Students planning such graduate work are strongly encouraged to complete their CLASS foreign language requirement with a classical language (Arabic, Greek, Hebrew, or Latin).

The CLAM major student may undertake a senior thesis, to be completed within a four-hour independent study (**CLM 498-499**). The thesis is recommended for students who wish to continue on to graduate work. Students in the University Honors Program will use the senior thesis as part of their Honors requirements and the thesis may, upon consultation with the appropriate department, be cross-listed with another department if the student wishes to combine it with an independent study in a second major.

Courses in the CLAM Program

Courses are 4 credits unless otherwise indicated.

Arabic

- **ARB 201 Intermediate Arabic I**
- **ARB 202 Intermediate Arabic II**
- **ARB 293/393/493 Special Topics in Arabic** (1 to 4 credits)
- **ARB 371 Survey of Arabic Literature and Culture**

Art History

- **ART 252 Introduction to Early Western Art**
- **ART 356 Gothic Art**

Classical and Medieval Studies

- **CLM 293/393/493 Special Topics in Classical and Medieval Studies** (1 to 6 credits)
- **CLM 495 Seminar** (1 to 3 credits)
- **CLM 498 Senior Thesis Proposal** (1 credit)
- **CLM 499 Senior Thesis Writing** (3 credits)

Dramatic Arts

- **DRA 211 History of the Theater I** (3 credits)
- **DRA 314 Plays in Performance** (3 credits) when performance is a classical or medieval play.

English

- **ENG 280/320 Classical Literature in Translation**
- **ENG 318 Analysis of Language** (2 or 4 credits; with classical or medieval language): cross-listed with **LIN 318** or **MLA 310**
- **ENG 330 Studies in Ancient Literature**
- **ENG 331 Studies in Medieval Literature**
- **ENG 355 Major Themes or Genres** (with classical or medieval topic)
- **ENG 361 Classical Rhetoric**
- **ENG 370 Chaucer**

Greek

- **GRK 301 Accelerated Classical Greek Language and Culture I**
- **GRK 302 Accelerated Classical Greek Language and Culture II**
- **GRK 350 Accelerated Classical Greek Language and Culture III**
- **GRK 351 Accelerated Classical Greek Language and Culture IV**
- **GRK 396/496 Independent Study in Greek** (1 to 4 credits)

Hebrew: Courses in Classical Hebrew offered at Siegal College

- HEC 310 Intermediate Classical Hebrew I (3 credits)
- HEC 360 Learning to Chant the Torah (3 credits)
- HEC 552 Advanced Readings in the Book of Samuel I (3 credits)
- HEC 354 Advanced Readings in the Book of Judges (3 credits)
- HEC 370 Advanced Intermediate Classical Hebrew (3 credits)
- HEC 380 Advanced Readings in the Book of Numbers (3 credits)

History

- **HIS 330 History of Greece**
- **HIS 331 Rise of Rome**
- **HIS 340 Roman Empire**
- **HIS 341 Early Middle Ages**
- **HIS 342 Late Middle Ages**
- **HIS 343 Social History of the Black Death**
- **HIS 377 History of Islamic Civilization**

Latin

- **LAT 200 Latin Bridge** (1 to 2 credits)
- **LAT 201 Culture and Civilization**
- **LAT 202 Vergil**
- **LAT 293/393/493 Special Topics**
- **LAT 296/396/496 Independent Study in Latin** (1 to 4 credits)
- **LAT 300 Latin Bridge** (1 to 2 credits)

Linguistics

- **LIN 318 Language Analysis** (2 or 4 credits; with classical or medieval language): cross-listed with **ENG 318**.

Modern Languages

- **MLA 201 Words: An Introduction to Etymology** (3 credits)
- **MLA 230/330 Introduction to Mythology** (3 credits)
- **MLA 273/373 King Arthur in History, Legend, and Literature**

Music

- **MUS 411 Music History I** (3 credits)

Philosophy

- **PHL 261 Ancient Philosophy**
- **PHL 262 Medieval Philosophy**
- **PHL 405 Prominent Philosophers** (with classical or medieval topic)
- **PHL 410 Studies in the History of Philosophy** (with classical or medieval topic)

Religious Studies

- **REL 231/239 Introduction to the Old Testament**
- **REL 232/236 Jesus and the Gospels**
- **REL 233/237 Paul and the Development of Christianity**
- **REL 234/238 The Later New Testament**
- **REL 280 Introduction to Mythology**
- **REL 285 Myths of Fate and Destiny**
- **REL 336 Hellenistic and Roman Religions**
- **REL 341 The Origin of Judaism**
- **REL 343 Ancient and Medieval Christianity**
- **REL 376 Women in Early Christianity**
- **REL 380 Ancient Greek Mythology: the Gods**
- **REL 463 Myths, Legends and Folktales**
- **REL 466 Images of Jesus in Early Christianity**
- **REL 468 Advanced Topics in Paul**

Classical and Medieval Studies Minor

To earn a CLAM minor, students must complete a minimum of 18 credit-hours in CLAM courses drawn from at least three separate academic fields of study, chosen in consultation with their adviser. At least three of these courses must also be at the 300 or 400 level.

Teacher Licensure

Students preparing to teach will fulfill the requirements for the B.A. in Classical and Medieval Studies and the licensure sequence in the College of Education and Human Services for the **Specialization in Multi-Age Foreign Language Education (PreK-12)**.

The PreK-12 Licensure sequence includes courses in elementary and secondary foreign-language methods. Students will need to follow the sequence as described by the College of Education and Human Services. Before admission to student teaching, the student must demonstrate oral fluency. Modern Language Methods courses should be taken the semester preceding student teaching.

School of Communication

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At-a-Glance

Contact Information:
School of Communication, 2121 Euclid Avenue, Music and Communication 233, Cleveland, Ohio 44115 * (216) 687-4630

Internships:
Internship opportunities are available to all students. For more information, please contact Internship Director, Professor Eleanor Dombrowski, at **e.dombrowski@csuohio.edu** or (216)687-5065.

Introduction

From television to the Internet to conversations between doctors and patients, communication plays a major role in contemporary society. The School of Communication introduces students to the study of communication, with courses emphasizing the effects of communication on everyday life, dynamics of interpersonal relationships, and career-related skills. Students take courses from a nationally ranked faculty. They gain an appreciation for the social scientific study of communication and obtain training in public speaking, news writing, and film production. The school is a hub of activity, with a laboratory newspaper, digital video communication center, communication research center and a theater arts building.

Degrees

Communication (B.A.)
Communication Management (B.A.) (**see the Communication Management section of this catalog**)
Dramatic Arts (B.A.) (**see the Dramatic Arts section of this catalog**)
Film and Digital Media (B.A.) (**see the Film and Digital Media section of this catalog)**
Journalism and Promotional Communication (B.A.) (**see the Journalism and Promotional Communication section of this catalog**)

Minor Programs

Communication
Dramatic Arts

Certificate Programs

Three certificate programs sponsored or co-sponsored by the School of Communication are **Certificate in Journalism**, **Certificate in Multimedia Advertising** and **Certificate in Science Writing**.

Journalism Certificate

The Certificate in Journalism at the School of Communication provides undergraduates and professionals with an educational program that exposes students to an array of skills characterizing modern media: writing in various journalistic forms and styles, reporting principles and strategies, editing, ethics, and expertise appropriate to various media. The program introduces students to contemporary practices and theories while integrating traditional skills with emerging technologies, such as the Internet and optional computer graphics and design.

For admission to this certificate program, students must complete the prerequisite course **COM 225 (Media Writing)** with a minimum grade of B- (B-Minus). A 2.25 GPA must be maintained across all required courses (16 credit hours).

Requirements for the Certificate in Journalism

The certificate requires 16 semester hours of core courses in journalism. A list of optional electives allows those who wish to specialize to also focus their program in broadcast journalism. The following courses make up the certificate program.

Prerequisite:

- **COM 225 Media Writing**

Required Courses: (12 credit hours)

- **COM 326 Advanced Reporting**
- **COM 425 Editing and Graphics**
- **COM 426 Lab Newspaper I**

Options: (Choose one course for 4 credit hours)

- **COM 405 Electronic Journalism**
- **COM 427 Lab Newspaper II**
- **COM 490 Internship in Communication**

Suggested electives (not included in the certificate courses):

- **COM 347 Political Communication**
- **COM 359 International Communication**
- **COM 447 Public Relations Writing**
- **COM 493 Special Topics in Communication (when appropriate)**

Multimedia Advertising Certificate

The certificate program includes 16 semester hours of core courses in visual art, advertising principles, advertising applications, and marketing analysis. A 2.25 GPA must be maintained across all required courses. Coursework should be of interest to students interested in applying film and digital media skills to the world of advertising.

The following courses are prerequisites to those required for the certificate.

Prerequisite:

- **ART 102 Introduction to Studio Art**
- **MKT 301 Introduction to Marketing**
- **COM 350 Persuasive Communication and Attitude Change**

Required Courses:

- **ART 244 Introduction to Macintosh**
- **COM 360 Principles of Advertising** *or*
  MKT 441 Advertising and Promotion
- **COM 450 Media Programming and Research** *or*
  COM 455 Communication Campaigns *or*
  COM 460 Advertising Copywriting and Layout Design
- **MKT 420 Buyer Behavior** *or*
  MKT 431 Marketing Research

Recommended Electives:

- **ART 344 Advanced Raster-Image Development**
- **ART 345 Advanced Vector-Image Development**
- **ART 444 Advanced Typography and Design**
- **ART 445 Introduction to Digital Media**
- **COM 204 Single-Source Video/Audio Production and Editing**
- **COM 352 Multi-Source Video Production**
- **COM 357 Principles of Public Relations**
- **COM 358 Media Law, Economics, and Ethics**
- **COM 370 Communication Technology and Social Change**
- **MKT 305 Marketing Management**
- **MKT 461 Global Marketing**

For more information please contact the appropriate department: **Art Department** (216) 687-2040, **School of Communication** (216) 687-4630, **Marketing Department** (216) 687-4771.

Science Writing Certificate

The Science Writing Certificate at the School of Communication provides undergraduates and professionals with the opportunity to develop specialized knowledge in media writing, science reporting, the scientific method and contemporary science. The certificate comprises courses in the School of Communication and the Science College. Students who complete this certificate are expected to have a working knowledge of contemporary scientific concepts and methodological approaches appropriate to their study. Students who successfully complete the certificate will have the tools necessary to explain interesting and complex ideas to a general audience.

About Required Courses:

The certificate requires 18 semester hours. **Science as a Way of Thinking (SCI 220)*** is a course designed for this program. There are 8 hours of core courses in journalism. Students will choose a 6-credit exit project in one of four areas, combining Health Communication, Electronic Journalism, Editing & Graphics or Advanced Public Relations with **COM 493 Science Communication**.

Admission & Completion:

For admission to this certificate program, students must complete the prerequisite course **Media Writing (COM 225)** with a minimum grade of B-. The following courses make up the certificate program. A 2.25 GPA must be maintained across all required courses.

Prerequisite:

- **COM 225 Media Writing**

Required Courses:

- **SCI 220 Science as a Way of Thinking**
- **COM 326 Advanced Reporting**
- **COM 485 Science Writing**

Exit Options:

- **COM 493 Special Topics (Science Communication)**

  Choose one of the following to be taken in conjunction with COM 493:

- **COM 362 Health Communication**
- **COM 405 Electronic Journalism**
- **COM 425 Editing & Graphics**
- **COM 447 Public Relations Writing**

  (COM 405 and COM 447 have other prerequisites.)

  *** Note:**
  Students must satisfy the university's General Education Requirements in Natural Science. Thus, students must complete **SCI 220**
  in addition to their two GenED science courses, one of which must include an approved laboratory component.

Communication (B.A.)
At-a-Glance

Minimum hours required for major: 36
Minimum hours required for minor: 20
Joint Program Available: Political Communication with Department of Political Science
Evening Program: Yes
Foreign Study Program: Yes
Advising: Contact the School of Communication office (216) 687-4630
Financial aid: Scholarship assistance awarded to students in the School of Communication.

- W.O. and Naomi E. Walker Scholarship
- Max Axelrod Scholarship. *(Students with journalism emphasis)*
- Donald Marcus Scholarship. *(Students with advertising emphasis)*
- Jana Stone Scholarship. *(Public relations emphasis)*
- Raymond Dorsey Scholarship. *(Physically disabled student with a preference for a journalism sequence)*

Scholarships awarded annually. Call the main office at 216 687-4630 for information.

The Bachelor of Arts in Communication:
The major in Communication provides students with a critical understanding of the complex, vital role that communication plays in contemporary life. Coursework offers students a host of intellectual, problem-solving, and career-related skills. In contemporary society, which is characterized by a dazzling array of new technologies, rapid social change, instant messaging, and dynamic interpersonal relationships, it is imperative that students appreciate the ways communication influences everyday life. Students who obtain a major in communication will take classes from a nationally ranked faculty and gain exposure to communication specialists who work in public and private sector jobs in Northeast Ohio. The major lays a strong general foundation in communication processes and effects.

More specialized training is available in the fields of **Journalism and Promotional Communication**, **Film and Digital Media**, and **Communication Management**. The School of Communication offers these three areas as separate bachelor's degree programs.

Major-Field Requirements

All majors are required to take a minimum total of 36 semester credit hours in Communication and maintain a 2.25 GPA across all communication courses to graduate with a major in Communication. Two core courses, two theory courses, one capstone and four communication elective courses are required for the communication major. Transfer students must obtain at least 20 credit hours from Communication courses at Cleveland State University.

Communication Major Required Courses (8 credit hours):

- **COM 101 Principles of Communication**
- **COM 303 Communication Inquiry**

Required Communication Major Theory Courses (8 credit hours):

- **COM 211 Communicating in Personal Relationships**
- **COM 226 Mass Media and Society**
- **COM 327 Media Criticism**
- **COM 330 Nonverbal Communication**
- **COM 346 Communication in Organizations**
- **COM 347 Political Communication**
- **COM 350 Persuasive Communication and Attitude Change**
- **COM 359 International Communication**
- **COM 362 Health Communication**
- **COM 366 Communication and Conflict**
- **COM 370 Communication Technology & Social Change**
- **COM 380 Family Communication**

Required Communication Major Capstone Courses (4 credit hours):

- **COM 401 Advanced Video/Audio Production**
- **COM 405 Electronic Journalism**
- **COM 427 Laboratory Newspaper II**
- **COM 428 Imaging Africa**
- **COM 444 Mediation and Collaborative Problem-Solving**
- **COM 447 Public Relations Writing**
- **COM 448 Managing Organizational Teams**
- **COM 449 Advanced Issues in Health Communication**
- **COM 450 Media Programming and Research**
- **COM 455 Communication Campaigns**
- **COM 470 DVD and Emerging Media: Authoring and Project Management**
- **COM 475 Senior Seminar in Managing Communication**
- **COM 493 Special Topics in Communication**
- **COM 495 Seminar in Communication**

Communication Major Electives (16 credit hours); **See course listing for all Communication classes**. A course can fulfill only one school requirement.

Communication Minor

All minors are required to take a total of 20 credit hours in communication courses. Eight hours are to include **COM 101** and **COM 303**. A total of 12 hours should include 4 hours of a theory course and 8 hours of elective courses. Transfer students must obtain at least 12 credit hours from communication courses at Cleveland State University .

Please note:
Courses may only fulfill one requirement for the communication major and minor. Capstone requirements must be taken at Cleveland State University. Transfer credits do not meet Capstone requirements. Only four credits of **COM 490 Internship in Communication** and **COM 496 Independent Study**
count toward the communication major. Any additional credits may count as university elective credits.

School of Communication

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- **Intercultural Communication Sequence**
- **Mediation Sequence**
- **Organizational Communication Sequence**
- **Relational Communication Sequence**
- **COM Courses**
- **Go to School of Communication Web Site**

Communication Management (B.A.)
At-a-Glance

Minimum hours required for major: 40

Special tracks:
Five areas of concentration are available within the Communication Management major: health communication, intercultural communication, mediation, organizational communication, and relational communication.

Career information:
A major in Communication Management can prepare students for a variety of careers involving organizational consulting, health care advocacy, dispute resolution, and management of communication divisions of major companies. Organizations need people who are sensitive to communication problems and can use their expertise to mediate disputes. Health-care organizations seek employees with sensitivity to doctor-patient communication and appreciation for the cultural context in which health communication takes place. Corporations seek specialists in team-building and leadership, aspects of the communication management major. Expertise in communication management should also be helpful to those who want to apply their expertise to solving social problems and improving quality of life in Northeast Ohio.

Evening Program: No

Advising:
Contact the School of Communication office (216) 687-4630 or Professor Guowei Jian, division director, at (216) 687-3995.

Financial Aid:
Scholarship assistance awarded to students in the School of Communication. Scholarships are awarded annually. Call the main office at (216) 687-4630 for information.

- W.O. and Naomi E. Walker Scholarship
- Max Axelrod Scholarship. *(Students with journalism emphasis)*
- Donald Marcus Scholarship. *(Students with advertising emphasis)*
- Jana Stone Scholarship. *(Public relations emphasis)*
- Raymond Dorsey Scholarship. *(Physically disabled student with a preference for a journalism sequence)*

Student organizations: Lambda Pi Eta Honor Society

The Bachelor of Arts in Communication Management:
The Communication Management major offers students a unique combination of academic excellence and career-related training. Our faculty is among the finest in the nation, recently ranked eighth in the country in communication research productivity. This program acquaints students with major theories of human communication, research applications to specific contexts, and insights as to how communication can be used successfully in everyday life. The course work also develops skill sets critical to students' career aspirations.

Major-Field Requirements

Students must complete a minimum of 40 credits and maintain a 2.25 GPA in Communication to graduate with a major in Communication Management. Each sequence consists of three core courses, five required sequence courses and two elective courses. Transfer students must complete at least 20 credit hours and the capstone course (**COM 475**) from Communication courses at Cleveland State University.

Communication Management Major Required Courses (12 credit hours):

- **COM 101 Principles of Communication**
- **COM 303 Communication Inquiry**
- **COM 475 Senior Seminar in Managing Communication**

Health Communication Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the health communication sequence.

Required Health Communication Sequence Courses: (20 credit hours)

- **COM 211 Communicating in Personal Relationships** or
  COM 242 Public and Professional Speaking or
  COM 341 Group Process and Leadership
- **COM 350 Persuasive Communication and Attitude Change**
- **COM 362 Health Communication**
- **COM 449 Advanced Issues in Health Communication**
- **COM 455 Communication Campaigns**

Health Communication Sequence Electives:
(8 credit hours); choose any two Communication courses, such as the following:

- **COM 301 Broadcast and New Media Writing**
- **COM 331 Gender and Communication**
- **COM 357 Principles of Public Relations**
- **COM 360 Principles of Advertising**
- **COM 370 Communication Technology & Social Change**
- **COM 448 Managing Organizational Teams**

Intercultural Communication Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the intercultural communication sequence.

Required Intercultural Communication Sequence Courses: (20 credit hours)

- **COM 330 Nonverbal Communication**
- **COM 332 Interracial Communication**
- **COM 341 Group Process and Leadership**
- **COM 348 Intercultural Communication**
- **COM 379 Communication and Negotiation**

Intercultural Communication Electives:
(8 credit hours); choose any two Communication courses, such as the following:

- **COM 226 Mass Media and Society**
- **COM 321 Documentary Form in Film & Television**
- **COM 370 Communication Technology & Social Change**
- **COM 428 Imaging Africa**

Mediation Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the mediation sequence.

Required Mediation Sequence Courses: (20 credit hours)

- **COM 211 Communicating in Personal Relationships** or
  COM 242 Public and Professional Speaking or
  COM 341 Group Process and Leadership
- **COM 350 Persuasive Communication and Attitude Change**
- **COM 366 Communication and Conflict**
- **COM 379 Communication and Negotiation**
- **COM 444 Mediation and Collaborative Problem-Solving**

Mediation Sequence Electives: (8 credit hours); choose any two Communication courses, such as the following:

- **COM 348 Intercultural Communication**
- **COM 370 Communication Technology & Social Change**

Organizational Communication Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the organizational communication sequence.

Required Organizational Communication Sequence Courses: (20 credit hours)

- **COM 242 Public and Professional Speaking**
- **COM 341 Group Process and Leadership**

- **COM 346 Communication in Organizations**
- **COM 366 Communication and Conflict**
- **COM 448 Managing Organizational Teams**

Organizational Communication Sequence Electives: (8 credit hours); choose any two Communication courses, such as the following:

- **COM 301 Broadcast and New Media Writing**
- **COM 357 Principles of Public Relations**
- **COM 360 Principles of Advertising**
- **COM 370 Communication Technology & Social Change**

Relational Communication Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the relational communication sequence.

Required Relational Communication Sequence Courses: (20 credit hours)

- **COM 211 Communicating in Personal Relationships**
- **COM 330 Nonverbal Communication**
- **COM 331 Gender and Communication**
- **COM 380 Family Communication**
- **COM 444 Mediation and Collaborative Problem-Solving**

Relational Communication Sequence Electives: (8 credit hours); choose any two Communication courses, such as the following:

- **COM 332 Interracial Communication**
- **COM 366 Communication and Conflict**
- **COM 370 Communication Technology & Social Change**
- **COM 379 Communication and Negotiation**

Sociology: Criminology

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- **Sociology Minor**
- **Certificate Program: Criminal Justice**
- **SOC Courses**
- **Go to Sociology Web Site**

Criminology (B.A.)
At-a-Glance

Admission to major: No requirement other than good academic standing in the College of Liberal Arts and Social Sciences.

Minimum hours required for major: 38-41 (including **SOC 101**, **201**, **250**, **344**, **351**, **353**, **354**)

Minimum hours required for minor in Criminal Justice: 23 (**see below**)

Advising: Individual faculty advisers and Student Handbook.

Student Honorary Society: Alpha Kappa Delta

Awards: Annual Distinguished Sociology/Criminology Student Award

Student Organizations: Sociology Club

For Information: Contact the **Sociology Department**. Phone: (216) 687-4500

Criminology is the scientific study of crime and its causes. The major is interdisciplinary but draws primarily from the discipline of sociology. Students who complete the degree receive a broadly based liberal-arts education that hones their writing skills, research abilities, and critical thinking. Above and beyond the teaching of basic aspects and preparing students for careers in the criminal justice system, the program is designed to instill a scientific and systematic orientation towards this subject matter via courses in theory and research methods.

Students pursuing a major in Criminology take core courses in the fundamentals of criminology, additional courses focusing on key areas and issues in the study of crime, and courses in research methods. This program familiarizes students with the principal theories and research findings of criminology and is designed to develop critical-thinking abilities and the knowledge, research and writing skills central to a liberal-arts education. It prepares students for a wide variety of careers in applied criminal justice fields such as corrections, parole or policing, the field of justice research and in social-service settings. In addition, students who complete this concentration are well prepared for graduate work in criminology, one of the social sciences or law.

For more information, call the **Sociology Department**, (216) 687-4500.

Major-Field Requirements

In establishing the requirements for the major in Criminology, the Department of Sociology maintains these objectives: to introduce students to interdisciplinary perspectives on various aspects of crime, to teach the principles of sociological research and the fundamental skills needed to use them, and to prepare students for advanced training at the professional and graduate-school levels.

A minimum of 38 hours is required for a major. The hours must include these core courses:

- **SOC 101 Introduction to Sociology**
- **SOC 201 Race, Class, and Gender**
- **SOC 250 Introduction to Criminology**
- **SOC 344 U.S. Criminal Justice System**
- **SOC 351 Criminological Theory**
- **SOC 353 Methods of Social Research**
- **SOC 354 Quantitative Sociological Research**

In addition, students must complete four electives from the two groups listed below, at least two of which must be from Group A:

- Group A Electives: **SOC 260**, **SOC 311**, **SOC 341**, **SOC 342**, **SOC 345**, **SOC 346**, **SOC 347**, **SOC 348**, **SOC 349**, **SOC 360**, **SOC 491**, **SOC 494**
- Group B Electives: **ECN 350**, **PHL 341**, **PSC 310**, **PSC 311**, **PSY 345**, **SWK 240**, **SWK 259**, **SWK 341**, **SWK 342**, **SWK 371**, **SWK 374**, **SWK 375**, **SWK 470**

The major in sociology with a concentration in criminology is no longer offered. Students currently enrolled in this program should contact the department for information about completing the concentration or changing to the criminology major.

Internships in Criminology:

Students may qualify for a 4-credit internship in Sociology (**SOC 490**) by achieving an overall GPA of 3.0 in the major or minor, completion of the required courses, and junior or senior standing. Students who qualify must arrange an internship with the departmental coordinator (call 216-687-4500). Internships may be for up to 8 credit hours. However, only 4 of these hours may be applied toward the requirements for the major.

Minor Program: Criminal Justice

Students wishing to minor in Criminal Justice must complete three core, one law elective, and three general elective courses from the list below for a minimum of 23 semester credit hours:

1. **Criminal Justice Core Courses**
    - **SOC 250 Introduction to Criminology**
    - **SOC 344 U.S. Criminal Justice Systems**
    - **SWK 240 Administration of Justice**
2. **Law Electives:**
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **SOC 342 Sociology of Law**
    - **SWK 259 The Child, the Family and the Law**
    - **SWK 375 Criminal Law**
3. **Elective Courses:** (A course taken as a law elective cannot also be counted as a general elective).
    - **ECN 350 Economics of Crime and Punishment**
    - **ECN 450 Economics of Law**
    - **PHL 341 Philosophy of Law**
    - **PHL 453 Social, Political, and Legal Philosophy**
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **PSY 345 Abnormal Psychology**
    - **SOC 311 Individual and Society**
    - **SOC 341 Juvenile Delinquency**
    - **SOC 342 Sociology of Law**
    - **SOC 344 U.S. Criminal Justice Systems**
    - **SOC 345 Social Control**
    - **SOC 346 Corporate and Governmental Deviance**
    - **SOC 347 Sociology of Policing**
    - **SOC 348 Sociology of Corrections**
    - **SOC 349 Women and Crime**
    - **SOC 360 Sociology of Interpersonal Violence**
    - **SOC 394 Special Topics in Criminology** (various)
    - **SOC 491 Criminology Internship**
    - **SWK 259 The Child, the Family and the Law**
    - **SWK 341 Corrections: Institutional and Community-Based**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **SWK 470 Problems and Issues in Criminal Justice**

For additional information, contact the chairperson of the **Department of Sociology** at (216) 687-4500.
Note: A criminal justice certificate is also available. **See College Certificate information** .

Dramatic Arts

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Dramatic Arts (B.A.)
At-a-Glance

Minimum hours required for major: 42

Minimum hours required for minor: 22

The major in Dramatic Arts is designed to enable students to study theatre for the purpose of entering the professional theatre, preparing for graduate work with the expectation of teaching, or building a base which is useful in association with the fields of recreation, public relations, community development, and human communication.

Theatre at Cleveland State is viewed in the liberal-arts tradition as being part of the cultural heritage of our civilization. In both its practice and its content, theatre is relevant to 21st-century life in all phases. Through classes and strong production orientation, students with this major can expect improvement in oral expression; motor skills; increased understanding of themselves and others; and illumination of major social, political, philosophical, moral, and psychological issues.

Major-Field Requirements

All Dramatic Arts majors are required to successfully complete a minimum of 42 credit hours consisting of the core curriculum (23 hours) and one specialization track (19 to 26 hours).

Core Curriculum to be completed by graduation:

- **DRA 101 Production Practicum** (6 credits with a minimum of 2 hours each in technical and performance activity)
- **DRA 211 History of the Theatre I** (3 credits)
- **DRA 212 History of the Theatre II** (3 credits)
- **DRA 213 History of the Theatre III** (3 credits)
- **DRA 225 Principles of Acting** (4 credits)
- **DRA 491 Comprehensive Exam** (4 credits)

TOTAL 23 credit hours

Specialization tracks:

The specialization tracks are designed to offer the student the main areas of concentration demanded by professional theatre or expected of the modern academician.

1. Acting track:

The acting track focuses on acting skills while emphasizing the relation of acting to the ancillary disciplines that directly affect the actor. An actor should know and understand the work of the director and the various designers and artisans of the "technical theatre" in order to meet the challenges of a professional career or graduate education.

- **DRA 200 Intro to Tech Theatre** (4 credits)
- **DRA 321 Voice and Movement** (4 credits)
- **DRA 325 Intermediate Acting** (4 credits)
- **DRA 331 Principles of Directing** (4 credits)
- **DRA 381 Theatre Organization and Management** (4 credits)
- **DRA 425 Advanced Acting** (4 credits)

TOTAL 24 credit hours

2. Directing track:

The successful director is one who is able to make informed decisions about every aspect of production from acting and design to movement and staging. The emphasis on directing courses augments a broad range of necessary skills courses needed to pursue an academic or professional career.

- **DRA 200 Intro to Tech Theatre** (4 credits)
- **DRA 300 Stage Management** (3 credits) *or*
  DRA 301 Lighting Design (3 credits) *or*
  DRA 351 Theatre Makeup (3 credits) *or*
  DRA 352 Creative Dramatics (3 credits)

- **DRA 325 Intermediate Acting** (4 credits) *or*
  DRA 425 Advanced Acting (4 credits) *or*
  DRA 461(**ENG 305**) Playwriting (4 credits)
- **DRA 331 Principles of Directing** (4 credits)
- **DRA 332 Advanced Directing** (4 credits)

TOTAL 19 credit hours

3. Technical Theatre track

A designer needs to know the various collaborations necessary to the creative process. A successful will understand the actor's and director's process in order to successfully create and communicate his or her ideas. Practical experience and a portfolio are essentials for both the professional theatre and admission to a graduate program in technical theatre.

- **DRA 200 Introduction to Technical Theatre** (3 credits)
- **DRA 301 Lighting Design** (3 credits)
- **DRA 331 Principles of Directing** (4 credits)
  Subtotal: 11 credit hours
  a. Costuming subtrack:
    - **DRA 391 Costume History & Design** (3 credits)
    - **DRA 496 Construction & Drafting IS** (3 credits)
    - **DRA 496 Millinery and Accessories IS** (2 credits)
      Costume Subtotal: 8 credit hours

  b. Scene Design subtrack
    - **DRA 371 Scene Design I** (4 credits)
    - **DRA 372 Scene Design II** (4 credits)
      Scene Design Subtotal: 8 credit hours

TOTAL Technical Theatre Track 19 to 21 credit hours

4. Playwriting track:

"Playwrights who know nothing of the practical aspects of the theatre are writing for the closet not the stage." --George Bernard Shaw. This major track, designed in collaboration with Creative Writing, will be a unique program focusing on plays in performance.

- **DRA 200 Intro to Tech Theatre** (4 credits)
- **ENG 303 Creative Writing** (4 credits)
- **DRA 321** (**ENG 351**) Contemporary Theatre (4 credits)
- **DRA 331 Principles of Directing** (4 credits)
- **DRA 461** (**ENG 305**) Playwriting (4 credits)

TOTAL 20 credit hours

5. Dramatic Arts Content for Teaching track:

This track is designed for students contemplating a career in teaching at the elementary, middle-school, or high-school levels. This course of study is to be completed before commencing a Post-baccalaureate Teacher Preparation Program in the College of Education and Human Services. (**See note below**.)

- **DRA 200 Introduction to Technical Theatre** (4 credits)
- **DRA 300 Stage Management** (3 credits) *or*
  DRA 391 Costume History & Design (3 credits)
- **DRA 331 Principles of Directing** (4 credits)
- **DRA 352 Creative Dramatics** (3 credits)
- **DRA 353 Children's Theatre** (3 credits) *or*
  DRA 354 Puppet Production (3 credits)
- **DRA 381 Theatre Organization and Management** (4 credits)

TOTAL 21 credit hours

Note:

Students wishing to pursue a career teaching dramatic arts should investigate the certification or licensing requirements of the state in which they would like to teach. **Post-baccalaureate Teacher Preparation Programs** are available through the College of Education and Human Services, which offers a variety of teacher preparation programs for college graduates who have had little or no professional training in education. While most of these programs lead to licensure, most of the course work they require cannot be applied to a graduate degree. The course work in the professional education track is designed to fulfill licensing requirements for a teacher of the arts in Ohio in the coming years. Currently no undergraduate program for teaching theatre exists in the College of Education and Human Services at Cleveland State.

Drama Minor

Requirements

Minimum Total

22 credit hours total (minimum):

- **DRA 101 Production Practicum** (2 credits)
- **DRA 200 Introduction to Technical Theatre** (3 credits)
- **DRA 211 Theatre History I** (3 credits) *or*
  DRA 212 Theatre History II (3 credits) *or*
  DRA 213 Theatre History III (3 credits)
- **DRA 225 Principles of Acting** (4 credits)

From the following groups (at least one from each group) for a total of 12 hours:

Group A

- **DRA 300 Stage Management** (3 credits)
- **DRA 301 Lighting Design** (3 credits)
- **DRA 351 Theatre Makeup** (3 credits)
- **DRA 371 Scene Design I** (4 credits)
- **DRA 391 Costume History and Design** (3 credits)

Group B

- **DRA 216 African American Theatre** (3 credits)
- **DRA 321 Contemporary Drama** (4 credits)
- **DRA 381 Theatre Organization and Management** (4 credits)
- **DRA 451 Theatre Criticism** (4 credits)

Group C

- **DRA 325 Intermediate Acting** (4 credits)
- **DRA 326 Voice and Movement** (4 credits)
- **DRA 331 Principles of Directing** (4 credits)
- **DRA 354 Puppet Production** (3 credits)
- **DRA 461 Playwriting** (4 credits)

Economics

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Economics (B.A.)
At-a-Glance

Admission to major: No requirements other than good academic standing in the College of Liberal Arts and Social Sciences

Minimum hours required for major:
31 hours of course work in economics, 3 hours in statistics, and an additional 8 hours of mathematics, and computer science course **IST 203**.

Minimum hours required for minor: 16

Advising:
Advising is done by faculty members in the Department of Economics. Students who are thinking of majoring in economics should contact the chairperson of the Economics Department's Undergraduate Committee. Phone: (216) 687-4520.

Student organization: Omicron Delta Epsilon

Additional information:
The Economics Department offers an honors program to those who have maintained a GPA of 3.3 or better both in overall course work and in major-field requirements. An annual award is made to the year's most outstanding senior economics major. A cash prize has been given to the recipient of this award in recent years. A Business Economics major is available to students in the College of Business Administration. Secondary teacher certification in economics (as a second teaching field) is available to students in the College of Education and Human Services. Non-majors should consult the Economics Department about elective courses to complement their majors.

A knowledge of economics is essential to understand the economic issues confronting individuals, firms, and society. Economics is an appropriate major for those wishing to pursue careers in business, law, journalism, and industrial relations, as well as for those who wish to become professional economists.

An economics major provides an excellent background for graduate study in economics and other related fields. Economists are employed by universities; corporations; government agencies at the federal, state and local levels; labor organizations; trade associations; and professional societies. Economics majors are trained to develop the analytical skills needed to understand economic problems and to arrive at possible solutions.

Major-Field Requirements

Economics majors in a regular B.A. program must complete a total of 31 hours of course work in economics as well as additional hours in statistics, mathematics, and computer science course **IST 203**.

Core Courses. Core requirements are fulfilled by completing 12 hours from the following courses:

- **ECN 201 Principles of Macroeconomics**
- **ECN 202 Principles of Microeconomics**
- **ECN 301 Intermediate Macroeconomics**
- **ECN 302 Intermediate Microeconomics**

Economics Electives.
In addition to the core courses for the economics major, with the exception of students in the Honors Program, five economics elective courses amounting to at least 19 credit hours must be completed. These elective courses should be chosen in consultation with a department adviser.

Statistics. Introductory course in statistics (**MTH 147**, **OMS 201**, **PSY 311**, **SOC 354**, or equivalent).

Mathematics. Students must complete **MTH 151 through 156** or **MTH 181-182**. For students planning to pursue graduate studies in economics, additional courses in mathematics are recommended.

Computer Literacy Requirement

- **IST 203 Software Tools for Personal Productivity**, 3 credit hours

Business Economics Major

The College of Business Administration, in cooperation with the Economics Department, offers a program in business economics which leads to a B.B.A. degree. For further information on the business economics major, **see the section describing programs** in the

College of Business Administration.

Economics Minor

Students working toward undergraduate degrees from other departments and colleges at Cleveland State University are eligible to earn a minor in economics to complement their baccalaureate degrees from other disciplines. A minor in economics consists of 16 hours of three required and two elective courses.

Required Courses: ECN 201, **ECN 202**, and either **ECN 301** or **ECN 302**.

Elective Courses: Seven hours of 300- to 400-level economics courses.

Honors Program

Students in the Economics Honors Program must complete the core requirements, statistics requirement, **MTH 181** and **MTH 182**, and the computer literacy requirement (**IST 203**) for economics majors; however, the elective requirement is fulfilled by completing **ECN 322**, **ECN 355**, **ECN 497** (Honors Essay), **IST 203**, and two additional economics electives which have as a prerequisite at least one course in principles of economics. For students planning to pursue graduate studies in economics, additional courses in mathematics are recommended.

An honors candidate must have and maintain a 3.3 overall grade-point average and a 3.3 GPA in major-field requirements. Information about the honors program will be provided to all students at the time a major is declared in economics. For further information, contact the **Department of Economics**.

Applied Economics and Public Policy

The certificate program in Applied Economics and Public Policy is designed for students who are interested in current economic issues and the public policy for dealing with these issues. The program is intended for students with minimal previous preparation in economics. With three exceptions, the courses required for the certificate in economics require no more than a background in principles of economics.

To a limited degree, the program is interdisciplinary. One course out of the four required for the program may be taken in either **Sociology** or **Political Science**.

Requirements for Certificate in Applied Economics and Public Policy

The program requires students to complete four courses (a minimum of 15 hours). The courses must be selected from the list below and must include at least three courses in economics.

- **ECN 333 Economics of Health Care** (4 hours)
- **ECN 360 Public Sector Economics** (4 hours)
- **ECN 450 Economics of Law** (4 hours)
- **ECN 474 Environmental and Natural Resource Economics** (4 hours)
- **ECN 475 Labor Economics** (4 hours)
- **ECN 482 International Economics** (4 hours)
- **PSC 315 Public Policy and Administration** (4 hours)
- **SOC 203 Sociology of Poverty** (3 hours)

There are two general paths to acquiring the certificate:

For students who have completed **ECN 201** and **ECN 202**, the program can be completed by taking the following three Economics courses and either **SOC 203** or **PSC 315**:

- **ECN 333**
- **ECN 360**
- **ECN 482**
- **SOC 203** or **PSC 315**

For students who have completed **ECN 201**, **ECN 202** and **ECN 302**, the certificate can be earned with any four of the following seven options:

- **ECN 333**
- **ECN 360**
- **ECN 450**
- **ECN 474**
- **ECN 475**
- **ECN 482**
- **SOC 203** or **PSC 315**

English

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English (B.A.)

At-a-Glance

Admission to major: Completion of **ENG 240**, **241** (or equivalent)

Minimum hours required for major: 38

Minimum hours required for minor: 21

Special tracks:
The English major emphasizes the study of British and American literature. Tracks or concentrations are available in the liberal arts, pre-law and pre-literary graduate studies, creative writing, multicultural studies, linguistics, and secondary English licensure.

Advising: Contact Dr. David Larson, director of Undergraduate Studies, at (216) 687-3990.

Student activities: Student organization: *Whiskey Island* (creative writing magazine). Poetry Center activities include workshops and readings by students, writers in the Cleveland community, and distinguished visiting writers.

Scholarship information: Each year, the department offers *Plain Dealer* awards to recognize excellence in expository writing, tuition scholarships as prizes in creative writing, and English Alumni Association contests, as well as the Gulbenkian award as a cash prize to honor a distinguished graduating senior.

Career information: Students preparing to teach English in high school must meet the State of Ohio licensure requirements. Please contact the **College of Education and Human Services** for further information on licensure. For students preparing for careers in writing, editing and publishing, the department offers a creative writing concentration. The linguistics concentration includes courses in linguistics as well as literature. The English major is an ideal liberal arts major for students desiring to develop capabilities in research, writing, critical thinking, and textual analysis combined with the study of literature and language.

Freshman English Placement

Consult the **course description section of this catalog under English** for information about placement examinations and placement of students into basic writing and freshman English courses.

Major-Field Requirements

Courses required for the major are as follows (38 credits minimum):

1. Introductory courses (8 credits): **ENG 240**, **241**
2. The completion of one of the English Department's concentrations or tracks
3. Senior seminar: **ENG 495** (4 credits minimum)

English majors are advised to take **ENG 240** and **ENG 241** before taking courses numbered ENG 300 and above.

All students should initially consult the director of Undergraduate Studies. Transfer students must see the director of Undergraduate Studies for a transfer credit evaluation.

Concentrations

Liberal Arts Concentration

1. Introductory courses (8 credits): **ENG 240**, **241**
2. Three courses (12 credits): **ENG 321 British Literature I**, **ENG 322 British Literature II**, **ENG 342 American Literature Survey**

3. Electives: 14 credits in courses numbered **ENG 300** and above
4. Senior seminar: **ENG 495** (4 credits minimum)

Creative Writing Concentration

1. Introductory courses (8 credits): **ENG 240**, **241** (or equivalent)
2. **ENG 303 Creative Writing** (4 credits; prerequisite for **ENG 305**)
3. Two courses in creative writing (8 credits): **ENG 305 Creative Writing Workshop** (fiction, poetry, playwriting, special topics). **ENG 305** may be repeated with a change of topic.
4. Electives: 14 credits in courses numbered **ENG 300** and above
5. Senior seminar: **ENG 495** (4 credits)

Note: No more than three English 305's may be counted towards the major.

Pre-Literary Graduate Studies Concentration

1. Introductory courses (8 credits): **ENG 240**, **241**
2. Three courses (12 credits): **ENG 321 British Literature I**, **ENG 322 British Literature II**, **ENG 342 American Literature Survey**
3. One course (4 credits): **ENG 360 Studies in Literary Criticism** or **ENG 382 Canonicity**
4. Electives: 10 credits in courses numbered **ENG 300** and above
5. Senior seminar: **ENG 495** (4 credits)

Pre-Law Concentration

1. Introductory courses (8 credits): **ENG 240**, **241**
2. Grammar or Linguistics course (4 credits): **ENG 310** or **ENG 311**
3. Critical Theory or Rhetoric course (4 credits): **ENG 302 Rhetoric of theLaw** or **ENG 360 Studies in Literary Criticism** or **ENG 361 Classical Rhetoric** or **ENG 382 Canonicity**
4. Electives: 14 credits in courses numbered **ENG 300** and above
5. Senior seminar: **ENG 495** (4 credits)

Linguistics Concentration

1. Introductory courses (8 credits): **ENG 240**, **241**
2. **ENG 311** Elements of Linguistics (4 credits)
3. Two courses in linguistics (8 credits): **ENG 313**
   (topics include American dialects, history of the English language, historical linguistics, sociolinguistics, semantics; may be repeated with change of topic)
4. Electives: 14 credits in courses numbered **ENG 300** and above
5. Senior seminar: **ENG 495** (4 credits minimum)

Multicultural/Multiethnic Literature Concentration

1. Introductory courses (8 credits): **ENG 240**, **241**
2. English electives: at least 10 credits of ENG 300-400 level courses
3. Multicultural literature electives: 16 credits from the following list. (At least 8 credits must be taken in the English Department; ENG 347 and ENG 348 may be repeated with a change of topic):
   ENG 347 Studies in African-American Literature, **ENG 348 Studies in Multicultural Literature**, **ENG 349 Multicultural Literature: Theory and Methods**

   Other 300-400 level ENG courses may be counted when they have a multicultural/multiethnic topic. Students desiring to apply such courses to their concentration should write to the English Department's Committee on Instruction for permission to count those courses toward the concentration.

   In special cases, students may count a baccalaureate level (300-400) non-departmental course as an elective toward the concentration if the course is clearly literary and multicultural in focus. Students desiring to pursue this option should write to the English Department's Committee on Instruction for permission to count such non-departmental courses towards the concentration. No more than 8 credit hours of electives may be completed outside the department.

4. **ENG 495** Senior Seminar (4 credits)

Tracks

English Honors Track

Only for students accepted to the University Honors Program

1. Introductory courses (8 credits): **ENG 240**, **241**
2. Three survey courses (12 credits): **ENG 321 British Literature I**, **ENG 322 British Literature II**, **ENG 342 American Literature Survey**. These courses must contain Honors component.*****
3. **ENG 396 Independent Study**. See Director of Undergraduate Studies for requirements for Independent Study.

4. **ENG 495 Senior seminar**

*Must contain Honors component. Student must discuss Honors contract component with instructor. Honors component may not be taken as part of a Six-Week Summer session course.

Secondary English Licensure Track
(Integrated Language Arts Education, Grades 7-12)

General Education Requirement: ENG 207 African-American Literature

Sophomore Prerequisites (8 credits): ENG 240, **ENG 241**

Major-Field Requirements:

300-level English Requirements (26 credits):

- **ENG 308** Composition for Teachers
- **ENG 310** Traditional Grammar (requirement can be fulfilled by passing a departmental exam)
- **ENG 315** The English Language
- **ENG 321** British Literature Survey I
- **ENG 322** British Literature Survey II
- **ENG 342** American Literature Survey
- **ENG 382** Canonicity

400-level English Requirements:

- **ENG 495** Senior Seminar (Capstone Course)

Other Subject Requirements (8 credits):

- **COM 101** Principles of Communication
- **COM 226** Mass Media and Society or **COM 231** Evolution of Mass Media

Students desiring to teach English in high school must consult an adviser in the College of Education and Human Services, RT 1401 (216-687-4625), as well as an adviser in the English Department. Students must also minor in Education.

Professional Writing Certificate

The Professional Writing Certificate program is designed to enhance the credentials of students who are preparing for careers in corporate, professional, or technical writing, public relations, advertising, or for other careers in which writing plays an important role. The curriculum includes courses in graphics and design, editing, and other aspects of textual production, as well as in various genres of writing. While the Professional Writing Certificate is offered as an all-elective program, students are advised to select a curriculum that represents more than one aspect of textual production.

Students may earn the Professional Writing Certificate as part of their baccalaureate degree program, or they may add it to their credentials if they already have a baccalaureate degree. The Professional Writing Certificate is not awarded to persons who do not have a baccalaureate degree.

Admission to the Professional Writing Certificate Program

The Professional Writing Certificate program is open to all Cleveland State University undergraduates and graduate students, as well as Cleveland State alumni and students and alumni at other colleges and universities. Students must be enrolled in a baccalaureate degree program, or already have a baccalaureate degree, in order to be eligible for a Professional Writing Certificate.

Prerequisites for Completing a Certificate

Some of the courses in the Professional Writing Certificate program have specific course requirements. Students desiring to take these courses as part of the certificate program must, therefore, take the prerequisites, in addition to the 20 credits required for the certificate. See the **English Department** office staff for the complete description of this certificate program.

Information on the certificate program is available on the English Department Web page or students can stop by the English Department, Rhodes Tower 1815; or see details in the **certificates section of this catalog**.

Minor in English

Courses required for the minor in English (21 credits) are as follows:

1. Introductory courses (8 credits): **ENG 240**, **241** (or equivalent)
2. Electives: 13 credits in courses numbered **ENG 300** and above

Evening and Weekend Program

Students may obtain a major or minor in English by taking courses on evenings and weekends. Course selection is restricted, and each required course generally is offered once every other year.

School of Communication

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Film and Digital Media (B.A.)

At-a-Glance

Minimum hours required for major: 45

Special tracks: There are three areas of concentration available within the Film and Digital Media major: digital media, film, and media studies. A media studies sequence gives students exposure to faculty who specialize in the effects of technology and mass media on children and adults. The film sequence provides training in screenwriting and film production. The digital media sequence provides future broadcasters, DVD authors/project managers, and digital video and film makers with the skills they need in an era of visual media convergence.

Evening Program: No

Advising:
Contact the School of Communication office (216) 687-4630 or Professor Robert Abelman, division director, at (216) 687-4624.

Financial Aid:
Scholarship assistance awarded to students in the School of Communication. Scholarships awarded annually. Call main office at (216) 687-4630 for information.

- W.O. and Naomi E. Walker Scholarship
- Max Axelrod Scholarship. *(Students with journalism emphasis)*
- Donald Marcus Scholarship. *(Students with advertising emphasis)*
- Jana Stone Scholarship. *(Public relations emphasis)*
- Raymond Dorsey Scholarship. *(Physically disabled student with a preference for a journalism sequence)*

Student organizations: Lambda Pi Eta Honor Society, Media Arts Technology Organization.

Career information:
A major in Film and Digital Media should prepare students for careers in broadcasting, digital video production, film production, and applied media research. Graduates with expertise in film and digital media can be hired as producers, videographers, broadcast reporters, writers, and specialists producing DVD-based entertainment, education, and training materials. Those with a background in media studies will be marketable in the broadcast industry where knowledge of research is essential. Employment in the information sector is expected to increase by over 18%, adding over 600,000 jobs to the economy, by 2012.

The Bachelor of Arts in Film and Digital Media:
The major in Film and Digital Media, offered by the Division of Media Arts and Technology, introduces students to the universal presence that film, digital communications, and broadcast media occupy in contemporary life. The major gives students an appreciation of the role communication technology plays in society, cultural foundations of media, entertainment and information, and the complex influences of media on human behavior. The Film and Digital Media major offers students a unique combination of academic excellence and career-related training. Our faculty are among the finest in the nation, recently ranked eighth in the country in communication research productivity. Our award-winning production faculty have a wide range of professional media experience.

Major-Field Requirements

Students must maintain a 2.25 GPA and complete a minimum of 45 credits to graduate with a major in Film and Digital Media. Majors must take the required core courses and electives in one of the following three sequences. Transfer students must obtain at least 20 credit hours from Communication courses at Cleveland State University.

Film and Digital Media Major Core Required Courses (16 credit hours):

- **COM 101 Principles of Communication**
- **COM 131 Media and Technology Literacy**
- **COM 226 Mass Media & Society**
- **COM 303 Communication Inquiry**

Digital Media Sequence

Students concentrating in this area are required to take 29 credits of the following courses in the digital media sequence.

Required Digital Media Sequence Courses (8 credit hours):

- **COM 204 Single Source Video/Audio Production and Editing**

- **COM 320 History of the Moving Image**

Digital Media Sequence Electives (12 credit hours):

(4 credit hours); choose one of the following:

- **COM 321 Documentary Form in Film & Television**
- **COM 351 Audio Production for Radio**
- **COM 352 Multi-Source Video Production**

(4 credit hours); choose one of the following:

- **COM 400 Studio & Media Production Department Management**
- **COM 403 Advanced Video/Audio Editing**

(4 credit hours); choose one of the following:

- **COM 401 Advanced Video/Audio Production**
- **COM 405 Electronic Journalism**
- **COM 470 DVD and Emerging Media: Authoring and Project Management**

A minimum of 9 additional credits from above or the following electives:

- **COM 100**, **200**, **300** Communication Lab (Digital Media topics only)
- **COM 221 Introduction to Film**
- **COM 231 Evolution of Mass Media**
- **COM 301 Broadcast and New Media Writing**
- **COM 325 Screenwriting**
- **COM 353 Media Electronics**
- **COM 358 Media Law, Economics and Ethics**
- **COM 370 Communication Technology & Social Change**
- **COM 450 Media Programming and Research**
- **COM 490 Internship in Communication**
- **COM 494 Specialized Topics in Media Arts & Technology**

Film Sequence

Students concentrating in this area are required to take 32 credits of the following courses in the film sequence.

Required Film Sequence Courses (28 credit hours)**:**

- **COM 204 Single Source Video/Audio Production and Editing**
- **COM 221 Introduction to Film**
- **COM 320 History of the Moving Image**
- **COM 325 Screenwriting**
- **COM 410 Film Production I**
- **COM 411 Film Production II**
- **COM 414 Film Practicum**

Film Sequence Electives (4 credit hours) chosen from one of the following:

- **COM 321 Documentary Form in Film & Television**
- **COM 329 Contemporary Film**
- **COM 428 Imaging Africa**
- **COM 494 Specialized Topics in Media Arts & Technology**

Media Studies Sequence

Students concentrating in this area are required to take 29 credits of the following courses in the media studies sequence.

Required Media Studies Sequence Courses (12 credit hours)**:**

- **COM 231 Evolution of Mass Media**
- **COM 327 Media Criticism**
- **COM 450 Media Programming and Research**

Media Studies Sequence Electives (8 credit hours) choose two of the following:

- **COM 301 Broadcast and New Media Writing**
- **COM 310 Psychological Processing of Media**
- **COM 358 Media Law, Economics and Ethics**

- **COM 370 Communication Technology & Social Change**
- **COM 400 Studio & Media Production Department Management**

A minimum of 9 additional credits from above or the following:

- **COM 100**, **200**, **300** Communication Lab (Media Studies topics only)
- **COM 204 Single Source Video/Audio Production and Editing**
- **COM 221 Introduction to Film**
- **COM 320 History of the Moving Image**
- **COM 329 Contemporary Film**
- **COM 345 Film Theory**
- **COM 470 DVD and Emerging Media: Authoring and Project Management**
- **COM 494 Specialized Topics in Media Arts & Technology**

French

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French (B.A.)
At-a-Glance

Admissions to major: Completion of **FRN 102** or equivalent

Minimum hours required for major: 36

Minimum hours required for minor: 18

Advising: Two designated faculty advisers; phone (216) 687-4645

Student organization: Le club francophone de CSU

Additional information:
Year and semester exchange programs to Chambéry and Clermont-Ferrand in France; summer study-abroad program in France

The French major, which leads to competence through a sequence of language skills courses, also includes coursework in the literature, culture and cinema of France and the French-speaking world. The French major curriculum provides a solid basis for students earning teaching licensure, continuing with graduate study, or pursuing any number of careers involving foreign language proficiency, critical thinking and cross-cultural understanding and communication skills. Our program offers study abroad options, an on-campus language club and other opportunities to interact with French-speakers outside of the classroom.

As the most widely taught second language in the world, after English, spoken in over 43 countries on five continents, French is considered a global language—an ideal choice for students preparing for a fulfilling life in today's interconnected world. As the first Europeans to explore the Great Lakes, the French are also closely tied to the history of the Cleveland area which today boasts a number of French connections including an active French American Chamber of Commerce, and the Lafayette Archive, housed in the Cleveland State Univeristy library.

A student who has completed French course work in high school or at another institution and who wishes to continue the study of that language must begin course work for credit at the level consistent with her or his academic background. A placement test is required for all students with less than three years of high school French or the equivalent. Students who have had three or more years of previous study must consult with an adviser in the Department of Modern Languages to determine the appropriate level. As a general guideline, students who read and write French fluently must begin course work for credit at the 300-level or higher. Students considering a major in French must consult with an adviser in the Department of Modern Languages concerning projected plans of study.

Courses numbered from 100 to 114 in French generally emphasize development of performance skills, as do those at higher levels, in courses numbered 200 to 214, 300 to 314, and 400 to 414. Courses numbered 115 to 134 (and corresponding numbers at the upper levels) generally emphasize the nature of language. Courses numbered 135 to 164 (and corresponding numbers at the upper levels) generally emphasize the culture and history of specific languages. Courses numbered 165 to 189 (and corresponding numbers at the upper levels) generally emphasize the literatures of the specific languages. Courses numbered 190 – 199 (and corresponding numbers at the upper level) are independent study and specialized courses.

Retroactive Credit

Students are eligible to earn up to 14 retroactive credits for previous knowledge of French. This policy is for students who have completed a foreign-language skills course and who earned a B or better in that course. For example, if your first French skills course is FRN 102 and you receive an A or B, you can receive credit for **FRN 101**. **Consult the Department of Modern Languages** (216) 687-4645 for further information.

Credit by Examination

Students who successfully pass the College Level Placement Examination (CLEP test) in French may earn 14 credit hours for previous knowledge of French. For information about the examination, eligibility, and dates when it is given, contact the **Cleveland State Testing Center**
(216) 687-2277. Students who receive a score of 3, 4, or 5 on the Advanced Placement French language examination may earn 18 credit hours for FRN (**101**, **102**, **201**, and **202**).

Major-Field Requirements

Students seeking a major in French must complete 36 credit hours in French above the 100 level, distributed as follows:

a. 8 credit hours of courses in composition-conversation (**FRN 301**, **402**)
b. 4 credit hours of courses in literature (one of the following: **FRN 371**, **372**, **375**)
c. 4 credit hours in civilization (one of the following: **FRN 344**, **345**)

d. A minimum of 28 credit hours at the 300- or 400-level
e. 2 courses in French at the 400-level, distributed as follows: **FRN 402**, plus one course at the 400 level taught in French
f. Among the 36 hours, no more than 8 hours of French courses may be at the 200 level

Transfer Students

Transfer students must complete at least 18 credit hours of the 36 required for the major in residence at Cleveland State University in order to earn a degree.

Major Credit

Up to 8 credit hours of English literature, practicum in language, independent study, literature in translation, or credit by examination may count toward the major.

No grade below C in a major course may count toward the major.

French Minor

A minor consists of 18 credit hours beyond the 100 level, of which 8 must be at the 300 or 400 level. Transfer students must complete 9 hours of the 18 required for the minor in residence at Cleveland State University. Students seeking a minor in French must have a departmental adviser to assist in the selection of courses. No grade below C in a minor course may count toward the minor.

Study Abroad

Majors and minors are encouraged to take advantage of Cleveland State University's exchange programs in Chambéry or Clermont Ferrand; and/or a summer study trip to France. Normally up to 18 semester hours of study abroad may count toward the major requirements (additional credit may count toward the total hours needed for graduation). Majors should seek departmental approval of foreign study plans before departure, and must complete at least two 300- or 400-level courses in their major area after return from study abroad. (See also the **Foreign Study section** listed under "College of Liberal Arts and Social Sciences: Special Programs.")

For further information regarding the possibility of foreign study and summer programs available through the Modern Languages, **contact the department office**, (216) 687-4645, or Dr. Engelking, (216) 523-7167.

Teacher Licensure

Students preparing to teach will fulfill the requirements for the B.A. in French and the licensure sequence in the College of Education and Human Services for the **Specialization in Multi-Age Foreign Language Education (PreK-12)**.

Students seeking a B.A. in French with teaching licensure must, in fulfilling the major requirements, take one course in civilization, one course in phonetics, and literature courses acquainting the student with the major genres of drama, poetry, and the novel.

The PreK-12 licensure sequence includes courses in elementary and secondary foreign-language methods. Students will need to follow the sequence as described in the **College of Education and Human Services** section. Before admission to student teaching, students must pass a Praxis II Principles of Learning and Teaching Test (K-6 or 5-9 or 7-12), the Praxis II Content Knowledge test, and demonstrate oral proficiency at the ACTFL “Advanced-Low” level. Students will need to have their skill level assessed as early as possible in the program and then work with their advisers to plan study experiences that provide appropriate opportunities for improvement. Modern Language methods courses must be completed during the semester preceding student teaching.

German

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German
At-a-Glance

(Major is suspended at present.)

Hours required for minor: 18

Advising: Two designated faculty advisers; phone (216) 687-4645

Additional information:
Foreign field-study trips to Germany are offered on an irregular basis during summers as the need arises. An exchange program with the Teachers Training College (Pädagogische Hochschule) in Weingarten, Germany, has also been established. For more information, please contact the **CISP Office**.

A student minoring in German may find career opportunities in foreign service, industry, or communications. Language study involves mastery both of performance skills (speaking, reading, writing, understanding) and of a subject matter. The subject matter may be the language itself (philology, linguistics), its literature, culture, or pedagogy.

A student who has completed German course work in high school or at another institution who wishes to continue the study of that language must begin course work for credit at the level consistent with his or her academic background. Students who have had three or more years of previous study must consult with an adviser in the foreign language department to determine the appropriate level. As a general guideline, students who read and write German fluently must begin course work for credit at the 300-level or higher. Students considering a minor in German must consult with an adviser in the Department of Modern Languages concerning projected plans of study.

Courses numbered from 100 to 114 in German generally emphasize development of performance skills, as do those at higher levels, in courses numbered 200 to 214, 300 to 314, and 400 to 414. Courses numbered 115 to 134 (and corresponding numbers at the upper levels) generally emphasize the nature of language. Courses numbered 135 to 164 (and corresponding numbers at the upper levels) generally emphasize the culture and history of specific languages. Courses numbered 165 to 189 (and corresponding numbers at the upper levels) generally emphasize the literatures of the specific languages. Courses numbered 190 – 199 (and corresponding numbers at the upper levels) are independent and specialized courses.

Retroactive Credit

Students are eligible to earn up to 14 retroactive credits for previous knowledge of German. This policy is for students who have completed a foreign-language skills course and who earned a B or better in that course. For example, if your first German skills course is **GER 102** and you receive an A or B, you can receive credit for **GER 101**. Consult the **Department of Modern Languages** (216) 687-4645 for further information.

Credit by Examination

Students who successfully pass the College Level Placement Examination (CLEP test) in German may earn 14 credit hours for previous knowledge of German. For information about the examination, eligibility, and dates when it is given, contact the **Cleveland State Testing Center**
(216) 687-2277. Students who receive a score of 3, 4 or 5 on the Advanced Placement German language examination may earn 18 credit hours for GER (**101**, **102**, **201**, and **202**).

Contact the **department office** (216) 687-4645 for information about credit for course work.

German Minor

A minor in German consists of 18 credit hours beyond the 100-level, of which 8 credit hours must be at the 300 and/or 400 level. Transfer students must complete 9 hours of the 18 required for the minor in residence at Cleveland State University. Students seeking a minor in German must have a departmental adviser to assist in the selection of the courses. No grade below C in a minor course may count toward the minor.

Study Abroad

For further information regarding the possibility of foreign study and summer programs available through the Department of Modern Languages, contact the **department office**, (216) 687-4645. Please also **see above under "Additional Information."**

Teacher Licensure

For information, contact the **Department of Modern Languages** at (216) 687-4645.

History

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History (B.A.)
At-a-Glance

Minimum hours required for the major: 40, at least 32 of which must be upper-level (300- or 400-level)

Minimum hours required for the minor: 24, at least 16 of which must be upper-level

Student Honor Society: Phi Alpha Theta

Awards:
Thomas F. Campbell Scholarship; Leon Soulé Scholarship; Social Studies Scholarship; Jeanette E. Tuve Scholarship; Modern European History Prize; Distinguished Graduate Student; Distinguished Baccalaureate Award.

Advising: Director of Undergraduate Studies, Dr. Tom Humphrey (216) 523-7183; Individual faculty advisers; Internet Web page, **http://www.csuohio.edu/history**

For Information: Call Dr. Joyce M. Mastboom or the History Department, (216) 687-3920.

The Program

History is the essential foundation of knowledge. It provides the context for a liberal education, the tools to understand ourselves and our contemporary world, and the skills for an educated person to live a more fulfilled and gratifying life in a wide range of careers. Because of these various functions, we study history for many reasons:

- to better understand our society and the times in which we live
- to better understand ourselves
- to place our own society in historical perspective
- to balance present-mindedness with historical memory
- to acquire skills such as conducting research, communicating effectively through writing or oral communication, critical thinking, evaluating evidence, and problem-solving
- to understand the roles which individuals and groups have played in shaping their worlds
- for the enjoyment of examining societies very different or very similar to our own

This is possible because history at the university level is far more than a collection of facts, names, and dates. The emphasis is on accessing and analyzing information, the critical use of historical sources, learning to communicate the results, and the excitement which comes from exploring important ideas. To study history is to enter a time machine to explore the far reaches of the human experience — from classical times to the present; from the lives of great thinkers and kings to that of average people; from dramatic moments such as the Civil War to the routine. The past becomes the universe, all corners of which can be explored.

The department offers course work in European, U.S., African, Latin-American, and East Asian history and thematic foci on social and urban history and the history of the African Diaspora. The major program not only prepares students for teaching and for graduate study in history but many students have found history an appropriate preparatory foundation for careers in law, library science, international work, the foreign service, the ministry, business, government and archival and museum work.

History can be of inestimable value to non-majors. This can be done through the minor, the certificate programs, or by taking appropriate courses. Thus, literature majors could benefit from taking history courses in the areas they are studying. Business students could take **HIS 320**
(U.S. Foreign Policy Since 1900) . Social Work or Sociology majors could gain historical perspective on contemporary issues by taking **HIS 305** (Social Thought of African Americans) or **HIS 309** (American Immigration History).

Major-Field Requirements

Credit hours:
at least 40; at least **32** of which must be upper-level (300- or 400-level)

Survey requirement:
Students are required to complete one of the following survey sequences:

HIS 101-HIS 102

HIS 111-HIS 112
HIS 215-HIS 216

or two of the following courses:

HIS 110
HIS 165
HIS 175
HIS 185

Geographical diversity:
Students are required to divide their **32** upper-level credits among at least **four** of the following six geographical areas.

- North America
- Europe
- Latin America/Caribbean
- Asia/Pacific world
- Africa
- Middle East

Chronological diversity:
At least two of the student's upper-level credits (8 credit hours) must be in courses dealing with the pre-modern (before nineteenth century) period. These courses may also be used to fulfill the geographical distribution requirement.

Capstone requirement:
Upon reaching at least 24 credit hours in History, students are required to take one capstone research seminar. This course may be either HIS 400: Local History Seminar or HIS 401: Research Seminar (topics to vary by instructor). This course may be used to satisfy the geographical distribution or pre-modern requirement if appropriate (see above).

No course with a grade below C may be counted toward the History major.

Thematic concentration:
As a means of fulfilling the requirements for the major, students are encouraged to consult with their adviser about the possibility of developing a thematic focus (e.g., African Diaspora, Atlantic world).

Transfer students:
Transfer students must complete a minimum of 24 credit hours in history courses taken in the Department of History at CSU in order to major in History.

History Minor

A minor in History consists of 24 credits in history, of which at least 16 must be earned at the 300 level or above. No more than one course may be taken on an S/U basis. Transfer students must earn at least 16 credits in the Department of History at Cleveland State University in order to complete a minor in History.

Certificate Program: The History of the African Diaspora

The African Diaspora constitutes one of the largest and most consequential migrations in the history of mankind. This forced migration of over 10 million human beings transformed many areas of Africa and the Americas. This certificate program recognizes the significance of this historical process and its enduring importance as the subject of study. Students are called upon to examine the Diaspora in its comparative perspective by focusing on the history of Africa, the United States and Latin America.

Certificate Requirements

Students are required to complete 24 semester credit hours (6 courses) of which at least:

- 8 semester credit hours (2 courses) must be in African history
- 4 semester credit hours (1 course) must be in African-American (U.S.) history
- 4 semester credit hours (1 course) must be in Latin American history
- 4 semester credit hours (1 course) must be an Independent Study research project involving any two of the three areas

The remaining course is an elective in one of the three areas.

For additional information, contact the **Department of History** at (216) 687-3920.

Also, see **Certificate in Central and Eastern European Studies**, and **Certificate in Latin American Studies**.

Honors Program

The honors program is designed for the History major completing the last two years of study for an undergraduate degree who at the time of application has a 3.00 cumulative GPA and a 3.25 average in history. Application for admission to the program must be made 30 days before the semester in which the applicant wishes to enter.

The successful completion of the requirements for the program leads to a recommendation by the departmental Honors Committee for graduation with honors in History. For further information and application forms, contact the **Department of History office**, (216) 687-3920.

Evening Program

The requirements for both the major and minor programs also apply to evening students. The History Department makes every effort to schedule courses in such a way as to make it possible for evening students to fulfill these requirements.

Teaching Licensure

New licensing requirements are being implemented by the Ohio State Board of Education. Students interested in teaching history/social studies at the high-school level in the state of Ohio must complete the requirements for both the Bachelor of Arts in **Social Studies** and the **Adolescent and Young Adult Teaching License** in Integrated Social Studies (offered through the College of Education and Human Services). For further information, contact Dr. Tom Humphrey, in the **Department of History** (216) 523-7183. To clarify licensing requirements during this period of transition, contact the **College of Education and Human Services** at (216) 687-4625.

International Relations

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International Relations (B.A.)
At-a-Glance

Minimum hours required for major:
35 credit hours — 17-hour core in political science, 3 hours in economics, and 15 to 16 hours in political science, other courses in the social sciences, humanities, and arts, or in business, depending on the specific concentration.

Language Competence:
Students must demonstrate mastery in a major world language of relevance to their concentration comparable to that obtained from two years of college-level instruction. Competence may be demonstrated by examination.

Admission to Major:
No requirement other than good academic standing in the College of Liberal Arts and Social Sciences. Double majors are encouraged.

Evening Program:
Because courses are offered in a variety of departments, no assurance can be given that the major can be fully completed at night. All core courses will be available (in political science and economics) over a two-year cycle.

Foreign Study Programs:
Students may apply for credit toward their concentration for study-abroad programs including programs at Clermont (France), Germany, and China, as well as for other programs administered through the **Center for International Services and Programs** at Cleveland State.

Internship Opportunities:
Students can acquire valuable work experience, and can earn up to 5 credit hours through an internship in the U.S. or abroad (sign up for **PSC 406**). Specific intern assignments will be worked out on an individual basis by the department's International Relations intern adviser. Hours earned will not reduce the minimum 35 required to satisfy the major.

Advising:
When a student signs up as an International Relations major, an adviser will be assigned to the student. To make an advising appointment, please telephone (216) 687-4541 or e-mail **v.varaljay@csuohio.edu** in the Department of Political Science.

Additional Information:

This major is designed to give students the opportunity to engage in a multidisciplinary study of the variety of subjects concerned with international affairs. Successful completion of the major does not assure job placement in an international career. It does offer a number of advantages to students seeking entry placement in domestic and overseas private-sector firms and nongovernmental organizations where a premium is placed on the ability to interact successfully with people and economic and political practices in other cultures. It also provides an excellent foundation for more specialized graduate study in international studies, and for taking entry-level examinations into international service.

All students follow a series of core courses in political science and economics. In addition, students choose from one of a number of concentrations in the areas of international business and economics, Western European studies, Central Europe and the former Soviet Union, Asia, Latin America, and a combined concentration in Africa and the Middle East. For each of these concentrations, students take four courses from a recommended list. Students, with the agreement of the IR director or the chair of the Department of Political Science, may also design their own concentration if a grouping of appropriate courses is available.

In addition to the analytic tools of political science and economics, all International Relations majors are required to demonstrate competence in at least one major world foreign language at a level comparable to two years of college instruction. Competence may be demonstrated either by completing course work or passing an examination. Non-native English speakers may submit English as their foreign language. All other students must obtain approval for their language and show its relevance to their area of concentration. IR majors are encouraged to gain or deepen their language competence through a period of residence and/or study abroad. The department works closely with the Center for International Services and Programs to develop study-abroad opportunities for International Relations majors. In some cases scholarship support may be available to assist with travel expenses. Foreign-language majors or minors are welcome to double major in International Relations.

The Department of Political Science also encourages students to benefit from an internship program which will further deepen their knowledge of international affairs and improve their marketability. The director of the International Relations program will work with interested students to arrange internship opportunities in Cleveland, elsewhere in the United States or in some instances with foreign corporations or organizations abroad. Students can consult a list of existing opportunities, or additional ones can be developed on an individual basis.

Students must maintain at least a 2.0 GPA in their major in order to graduate.

Major-Field Requirements

The curriculum for the International Relations major consists of a common core and an area of concentration. The following courses are required of all International Relations majors:

The Core:

- **PSC 231 International Politics** (4 hours)
- **PSC 328 International Political Economy** (4 hours)
- **PSC 421/422 Seminar in Comparative Politics or International Politics** (5 hours)
- **ECN 201 Macroeconomics** (3 credit hours)

PLUS

one additional 300-level elective (4 hours) from among the following:

- **PSC 321 Political Violence**
- **PSC 323 Politics of Africa**
- **PSC 324 Politics of Russia and the Successor States**
- **PSC 325 Western European Politics**
- **PSC 326 Politics of the Third World**
- **PSC 327 Politics of Peaceful World Change**
- **PSC 329 International Political Economy and the European Union**
- **PSC 330 U.S. National Security Policy**
- **PSC 331 U.S. Foreign Policy**
- **PSC 332 Politics in the Middle East**
- **PSC 333 Latin American Politics**
- **PSC 334 U.S.-Latin American Security Issues**
- **PSC 335 East Asian Politics**
- **PSC 338 Central and East European Politics**
- **PSC 339 Political Economy of the Middle East and North Africa**
- **PSC 393**, **PSC 394 Special Topics in International and Comparative Politics**

The Concentration:

(15 to 16 hours all at the 300-level or above, except for **PSC 221**, in area studies concentrations)

The purpose of the concentration is to enable students to pursue an in-depth study of one area of international studies corresponding to their intellectual and/or career interests. Courses in the concentration may be chosen from among a variety of courses in different disciplines of arts and sciences and from the College of Business. All courses selected for the concentration must be approved by the student's adviser or by the director of the International Relations major. Students can select from among the four concentrations listed below, or may create their own concentration with the approval of their adviser. Courses listed below for each concentration are indicative and may not all be available as needed. Students should see their advisers to work out their specific set of concentration courses.

1. Concentration in International Business and Economics (four of the following):

Every student needs to achieve and demonstrate the equivalent of a two-year academic competence in a language relevant to the area of International Business the student is concentrating in.

- **ECN 482 International Economics**
- **MKT 301 Introduction to Marketing** (3 hours)
- **MKT 305 Marketing Management**
- **MKT 321 International Business**
- **MKT 431 Marketing Research**
- **MKT 461 Global Marketing**
- **PSC 394 Special Topics in Political Science** (if on political economy)

or one of the above plus:

- **MLR 301 Principles of Management** (3 hours)
- **MLR 302 Principles of Labor and Industrial Relations** (3 hours)
- **MLR 421 Comparative Labor Systems** (3 hours)
- **MLR 487 International Management** (3 hours)

Note: Students will not be allowed to submit both MKT 301 and MLR 301 for the concentration. If they take both, one will count for major credit and they may submit a mixture of MKT and MLR courses toward their concentration.

2. Asia Studies (four of the following):

Students taking this option need to achieve and demonstrate the equivalent of a two-year academic competence in a major Asian language.

- **PSC 221 Comparative Politics**
- **PSC 335 East Asian Politics** (may not be double counted)
- **PSC 394 Special Topics** when specified to deal with Asia, such as "Art and Politics in China"
- **ART 281 Introduction to Far Eastern Art**
- **ART 383 Indian Art**
- **ART 384 Buddhist Sculpture**
- **ART 385 The Hindu Temple**
- **HIS 371 History of Japan**
- **HIS 372 Early Modern Japan**
- **HIS 373 Contemporary Japan in Historical Perspective**
- **HIS 374 Revolutionary Movements in Modern China**
- **REL 360 Hinduism**
- **REL 362 Buddhism**
- **REL 364 Islam**

Note: No more than one course total may be taken in Art and Religion.

3. Central Europe, Russia and the Successor States

Students in this concentration will be expected to achieve and demonstrate the equivalent of a two-year academic competence in Russian or German, or by permission, another major Central European language.

- **PSC 221 Comparative Politics**
- **PSC 324 Russia and the Successor States** (may not be double counted)
- **PSC 338 Politics of Central and East Europe** (may not be double counted)
- **HIS 360 History of Russia to 1900**
- **HIS 361 History of Modern Russia**
- **HIS 362 Modern Eastern Europe**

4. Africa and the Middle East:

Students in this concentration will be expected to achieve and demonstrate the equivalent of a two-year academic competence in Arabic, Hebrew, French, or Portuguese, or by permission, another major African language.

- **PSC 221 Comparative Politics**
- **PSC 323 African Politics**
- **PSC 332 Politics in the Middle East**
- **PSC 339 Political Economy of the Middle East and North Africa**
- **ANT 353 Cultures of Africa**
- **ART 286 Introduction to African Art**
- **ART 386 Regional Art in Africa**
- **COM 428 Imaging Africa**
- **HIS 375 Pre-Colonial Africa to 1800**
- **HIS 376 Modern Africa since 1800**
- **HIS 377 History of Islamic Civilizations**
- **REL 341 Origins of Judaism**
- **REL 364 Islam**

Note: No more than one course total may be taken in Art, Religion, and Communication.

5. Latin America and the Caribbean:

Students in this concentration will be expected to achieve and demonstrate the equivalent of a two-year academic competence in Spanish, Portuguese, or French.

- **PSC 221 Comparative Politics**
- **PSC 326 Politics of the Third World**
- **PSC 333 Latin American Politics**
- **PSC 334 U.S.-Latin American Security Issues**
- **ANT 352 Native South Americans**
- **ENF 210-211** Nonwestern Literature in English Translation (depends on specific content)
- **HIS 165 Introduction to Latin American History**
- **HIS 366 Colonial Latin America**
- **HIS 367 Modern Latin America**

Note: HIS 165 cannot be taken if a student is also taking HIS 366 and/or HIS 367.

School of Communication

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Journalism and Promotional Communication (B.A.)
At-a-Glance

Minimum hours required for major: 44

Admission: Students must complete **COM 225 (Media Writing)** with a minimum grade of B-.

Special tracks:
Three areas of concentration are available within the Journalism and Promotional Communication major: Journalism, Public Relations, and Advertising.

Career information:
A major in Journalism and Promotional Communication will prepare students for jobs in the news media, public relations, and advertising. Students with expertise in journalism can be hired as reporters, editors, or technical writers for newspapers, magazines, and online media. An education in public relations can open doors to jobs in PR firms and companies that use promotional strategies to craft a public image. Graduates with expertise in advertising can find employment in ad agencies, working in research or creative advertising development departments. Students who have an interest in effects of media and promotional communication may want to pursue graduate work to prepare for a career as a researcher or professor of mass communication.

Evening Program: No

Advising: Contact the School of Communication office (216) 687-4630 or Professor Jae-won Lee, division director, at (216) 687-4632.

Financial Aid:
Scholarship assistance awarded to students in the School of Communication. Scholarships awarded annually. Call main office at (216) 687-4630 for information.

- **Max Axelrod Scholarship.** Students with journalism emphasis.
- **Raymond Dorsey Journalism Scholarship.** Physically disabled student with a preference for journalism emphasis.
- **Jana V. Stone Scholarship.** Public relations emphasis.
- **W.O. and Naomi Walker Scholarship.** Students in the School of Communication.
- **Donald Marcus Scholarship.** Students with advertising emphasis.

Student organizations:
Lambda Pi Eta Honor Society, Society of Professional Journalists (SPJ), Public Relations Student Society of America (PRSSA), Cleveland State Advertising Association (CSAA), Student Association for Promotional Communication (SAPC)

The Bachelor of Arts in Journalism and Promotional Communication offers students a unique combination of academic excellence and career-related training. Students will receive a comprehensive, ethically grounded education in journalism and mass communication. Students in this program learn about both the impact and responsibilities of mass media in a contemporary capitalist democracy, obtaining training in the gathering, production, and strategic dissemination of information. Media reporting and writing, as well as the design of public relations and advertising campaigns, comprise the course work of this intensive program. The curriculum represents a balance among professional skills, academic approaches to mass communication, and a liberal-arts background. Our faculty is among the finest in the nation, recently ranked eighth in the country in communication research productivity.

Major-Field Requirements

Students must complete a minimum of 44 credits and maintain a 2.25 GPA to graduate with a major in Journalism and Promotional Communication. The major consists of four core courses, five required sequence courses and two elective sequence courses. Students should be aware that professionally oriented courses require considerable commitment of time and effort in addition to traditional class meeting times. Transfer students must obtain at least 20 credit hours from Communication courses at Cleveland State University.

Required Major Core Courses: (16 credit hours):

- **COM 101 Principles of Communication**
- **COM 303 Communication Inquiry**
- **COM 225 Media Writing**
- **COM 226 Mass Media and Society**

Journalism Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the Journalism sequence.

Required Journalism Sequence Courses: (20 credit hours)

- **COM 326 Advanced Reporting**
- **COM 328 Specialized Writing**
- **COM 425 Editing and Graphics**
- **COM 426 Laboratory Newspaper I**
- **COM 427 Laboratory Newspaper II**

Journalism Elective Courses: (8 credit hours); choose two of the following:

- **COM 231 Evolution of Mass Media**
- **COM 347 Political Communication**
- **COM 358 Media Law, Economics and Ethics**
- **COM 359 International Communication**
- **COM 370 Communication Technology & Social Change**
- **COM 393 Special Topics (Photo Journalism)**
- **COM 405 Electronic Journalism**
- **COM 490 Internship in Communication**

Public Relations Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the Public Relations sequence.

Required Public Relations Sequence Courses: (20 credit hours)

- **COM 350 Persuasive Communication and Attitude Change**
- **COM 357 Principles of Public Relations**
- **COM 425 Editing and Graphics**
- **COM 447 Public Relations Writing**
- **COM 455 Communication Campaigns**

Public Relations Sequence Elective Courses: (8 credit hours); choose two of the following:

- **COM 231 Evolution of Mass Media**
- **COM 242 Public and Professional Speaking**
- **COM 347 Political Communication**
- **COM 358 Media Law, Economics and Ethics**
- **COM 359 International Communication**
- **COM 360 Principles of Advertising**
- **COM 393 Special Topics (Photo Journalism)**
- **COM 490 Internship in Communication**

Advertising Sequence

Students concentrating in this area are required to take 28 credits of the following courses in the Advertising sequence.

Required Advertising Sequence Courses: (20 credit hours)

- **COM 357 Principles of Public Relations**
- **COM 360 Principles of Advertising**
- **COM 361 Advertising Copywriting & Layout**
- **COM 363 Advertising Media Planning and Sales**
- **COM 455 Communication Campaigns**

Advertising Elective Courses: (8 credit hours); choose two of the following:

- **COM 231 Evolution of Mass Media**
- **COM 242 Public and Professional Speaking**
- **COM 350 Persuasive Communication and Attitude Change**
- **COM 358 Media Law, Economics and Ethics**
- **COM 359 International Communication**
- **COM 364 Interactive Advertising Designs**
- **COM 393 Special Topics (Photo Journalism)**
- **COM 490 Internship in Communication**

Liberal Studies

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Liberal Studies (B.A.)
At-a-Glance

Director: Dr. Nelson Pole

e-mail: libstudies@csuohio.edu

Telephone: (216) 523-7179

Fax: (216) 523-7482

Internet: **http://www.csuohio.edu/liberalst/**

The Bachelor of Arts in Liberal Studies is administered by the College of Liberal Arts and Social Sciences. This degree provides a broad-based liberal education in the sciences and humanities. It is especially appropriate for students who wish to take an active role in shaping their studies.

The B.A. in Liberal Studies differs from traditional degree programs in allowing maximum freedom and flexibility in course selection. Students may organize a program that suits their own academic, professional, or other personal goals such as a foundation for graduate study, as a prerequisite for professional training, or as exploratory intellectual experiences in their own right. (Some graduate or professional careers require more specialized backgrounds than Liberal Studies permits, so for them a more traditional B.A. might be more appropriate.)

Liberal Studies is for any student whose academic interests do not fit well into any of the pre-defined major programs at Cleveland State University but whose academic interests are supported in our course offerings. Students design the theme of their own education.

Admission to the Bachelor of Arts in Liberal Studies Program

After admission to the university, a student makes an appointment with a Liberal Studies adviser. The adviser explains the nature of the program (including its advantages and disadvantages) and helps to determine whether such a broad-based education is in the student's best educational and career interests. Transfer credits from other schools and from other colleges within Cleveland State are also explained and evaluated. To enter the program, a student must have a minimum GPA of 2.75 either cumulatively or in the last 24 semester hours taken before admission.

The student then consults with the director of Liberal Studies or a faculty adviser about applying for admission to the program — ideally before attaining senior status. A letter of application requests admission to Liberal Studies and includes the following:

- a statement of understanding about the freedom of choice associated with this degree
- a statement of future plans to use this degree for itself, for further study, or for employment
- an outline of a projected course of study and date of graduation

The letter is reviewed by the program's director and advisory committee. When an application is approved, the student's major becomes effective in the following term.

Advising

Majors in Liberal Studies meet each term with the director or an adviser assigned by the director to discuss progress in the program and to register for the following term. They are also encouraged to seek additional advising from specific departments and programs, especially if they are planning graduate study or other professional training after graduation.

Time for Completing the Degree

The B.A. in Liberal Studies can be completed in four years of full-time study, or longer through part-time attendance. Some transfer credits from other schools and from other colleges within Cleveland State may reduce the time required. Students entering the program in their junior year or later may require additional time.

Major-Field Requirements

A. Liberal Studies majors must complete all university residence and distribution requirements as well as all general requirements of the College of Liberal Arts and Social Sciences.

B. In addition to university and college requirements, a B.A. in Liberal Studies includes 66 semester credits of C or better:
    - 16 in Social and Behavioral Sciences
    - 16 in Natural Sciences and Mathematics

- 16 in Humanities and Fine Arts
- 18 in Electives

These 66 credits may be broadly distributed across the four areas. They may be concentrated in various areas of interest (including certificates or formal minors in other departments), or they may be organized in a formal program of study of one or more major themes (such as critical thinking, cultural heritage, science and technology). No more than 18 credits in any one department will normally be counted toward the 66 credits of the major.

C. Among the 66 credits required for the major, there must be 16 upper level credits that are earned after the date of the official letter of acceptance into the program. Completion of an exit questionnaire or other document is required for graduation.

D. Upon petition to the director and advisory committee, a student may include in the Liberal Studies major up to 42 transfer credits from other colleges within Cleveland State — typically for courses that have specific counterparts in Liberal Arts and Social Sciences courses. A maximum of 31 credits in business courses may be counted toward the 66 credits of the major.

Linguistics

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Linguistics (B.A.)
At-a-Glance

Minimum hours required for major: 33

Minimum hours required for minor: 18

Special requirement: In order to earn a B.A. in Linguistics, a student must maintain an overall grade-point average of 2.5 or better, and a grade-point average of 3.0 or better in courses applied to the major.

Advising information: Freshmen and sophomores who are interested in majoring or minoring in Linguistics are advised to take **LIN 260 Language, Society, and Culture**
(3 credits), which counts toward the social sciences graduation requirement and as a Linguistics elective. This course is cross-listed as **ANT 260** and **ENG 260**. Students interested in majoring in Linguistics should contact the Interdisciplinary Programs office, Rhodes Tower 1644, (216) 687-3914.

Foreign language requirement: The college's foreign language requirement may be satisfied by taking a two-semester sequence of **LIN 318 Language Analysis** (4 credits each, cross-listed as **ENG 318** or **MLA 310**) and offered as Sanskrit, Old English, Old Norse, Mayan, or other languages. These count as core courses in the Linguistics major and minor.

Career information:

Students preparing to teach English as a Second Language are advised to take courses in phonetics and phonology, English grammar, applied linguistics, teaching ESL, and ESL internship. For preprofessional and general liberal-arts majors, linguistics contributes to analytical and research skills that enhance a professional résumé. Opportunities are varied and include linguistic analysis of primary texts, the study of language diversity in social and educational contexts, field experiences, and internships. The Linguistics major is drawn from courses in anthropology, communication, education, English, modern languages, philosophy, psychology, and speech and hearing. Some students have found it advantageous to take a double major, combining linguistics with one of these fields.

Major-Field Requirements

To earn a major in Linguistics, students must take at least 33 credits distributed among at least 9 courses. The number of credits in each course varies from 2 to 4. Course requirements are defined as follows:

1. **Introductory course** (one of the following):
    - **ANT 304 Linguistic Anthropology**
    - **MLA 325 Introduction to Linguistics**
    - **ENG 311/LIN 311** Elements of Linguistics
2. **Linguistic core courses** (4 courses from the following list):
    - **ANT 304 Linguistic Anthropology** (may apply either as an introductory course or as a core course)
    - **ANT 340/LIN 340 Phonology**
    - **ANT 341/LIN 341 Morphology and Syntax**
    - **ANT 342/LIN 342 Languages in Contact**
    - **ANT 344/LIN 313 Sociolinguistics**
    - **ENG 312/LIN 312 Modern English Grammar**
    - **ENG 313/LIN 313 Studies in Linguistics** (may be repeated with change of topic)
    - **ENG 318/LIN 318/MLA 310 Language Analysis** (may be repeated as a 2-semester sequence or with change of topic)
    - **SPH 228 Phonetics**
    - **SPH 229 Speech and Language Development**
    - **SPN 417 History of the Spanish Language**
3. **Electives in language and linguistics**
   (four courses or more as needed to bring the total number of credits to 33; at least three electives must be upper-division courses). Electives may include any courses from the core list, and courses from the following:
    - **ANT 260/ENG 260/LIN 260 Language, Society, and Culture**
    - **ANT 343 Language and Gender**
    - **EDL 406 Second Language Learning and Pedagogy**
    - **EDL 407 TESOL Methods**
    - **ENG 310/LIN 310 Traditional Grammar**
    - **ENG 314/LIN 314 Applied Linguistics**
    - **ENG 315/LIN 315 Introduction to the English Language**

- **ENG/LIN 490 Professional Internship: Teaching Adult ESL**
- **FRN 315/LIN 315 French Phonetics and Diction**
- **FRN 434 Studies in French Linguistics**
- **LIN 315 Phonetics and Contrastive Structures**
- **LIN 347 Maya Hieroglyphic Writing I**
- **LIN 447 Maya Hieroglyphic Writing II**
- **LIN 480/MLA 493 Special Topic in Linguistics**
- **LIN 496 Independent Study in Linguistics**
- **MLA 201 Words: An Introduction to Etymology**
- **PHL 377 Language and Philosophy**
- **PHL 432 Analytic and Linguistic Philosophy**
- **PSY 372 Memory and Cognition**
- **SPH 431 Language Disorders**
- **SPH 438/LIN 438 Urban Language Patterns**
- **SPN 293/393/493 Special Topics in Spanish** (with linguistic topic)
- **SPN 315/LIN 315 Spanish Phonetics**
- **SPN 416 Studies in Spanish Linguistics**

Linguistics Minor

The minor in Linguistics requires at least 18 credits, with courses distributed as follows:

1. Introductory course: **ANT 304**, **ENG 311/LIN 311** or **MLA 325**
2. Two Linguistic core courses (from Section 2 above)
3. Two or more elective courses (from Sections 2 and 3 above)

Modern Languages

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See:

- **Arabic** courses
- **Chinese** courses
- **English Translations of Foreign Literature (ENF)** courses
- **French** (B.A.)
- **German** (B.A. - suspended) minor
- **Greek** courses
- **Italian** courses
- **Japanese** courses
- **Latin** courses
- **Middle Eastern Studies** interdisciplinary minor
- **Modern Language** (culture; or languages such as Portuguese, Russian, or Quechua) courses
- **Spanish** (B.A.)

Music

On this page:

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- **At-a-Glance**
- **Bachelor of Music Degree**
- **Areas of Concentration**
- **Bachelor of Arts Degree**
- **Music Minor**
- **MUS Courses**
- **MUA Courses**
- **Go to Music Web Site**

Music (B.Mus., B.A.)
At-a-Glances

Minimum hours required for B.A.: 49

Minimum hours required for B.-Mus. Composition: 86

Minimum hours required for B.-Mus. Education: 93

Minimum hours required for B.-Mus. Performance: 78

Minimum hours required for B.-Mus. Music Therapy: 94

Minimum hours required for minor: 24

Contact information: Department chairperson, (216) 687-2151.

Two degree programs are offered: the Bachelor of Music, for the student who seeks primarily professional training, and the Bachelor of Arts with a major in music, for the student who seeks to study music in its wider cultural context. The Music Department offers training for music majors in the areas of music education, composition, applied music, and music therapy. These programs have been accredited by the National Association of Schools of Music.

Private lessons in applied music are offered on campus. Students may register for either one or two half-hour weekly lessons. The last digit of the applied music course number indicates the amount of credit earned. Those who register for one half-hour lesson earn one semester hour; two half-hour lessons earn two semester hours. Special tuition fees are assessed for these courses. A successful performance audition is required for admission to music major status.

All music students are urged to obtain the ***Music Department Student Handbook*** for further clarification of the degree requirements listed below. The handbook is the definitive document with the most up-to-date requirements.

Bachelor of Music Degree

In addition to fulfilling the general course requirements of the university and the College of Liberal Arts and Social Sciences, B.Mus. majors are required to complete course work in areas of common experience in music and in courses specific to one of four areas of concentration: music education, composition, applied music, or music therapy.

1. Course work in areas of common experience includes performance experience in applied music and in ensembles, development of basic musicianship skills, knowledge of musical structures and styles in broad historical and cultural contexts.

   The courses required in the common experience are:
   - **MUS 112 Macromusic**
   - **MUS 113 Writing About Music**
   - **MUA 102** and **103 Keyboard Skills I, II**
   - **MUS 231** through **234 Harmony and Form I, II, III, IV**
   - **MUS 241** through **244 Musicianship I, II, III, IV**
   - **MUS 411** and **412 Music History I, II**
   - **MUS 414 Ethnomusicology**
2. In addition, each major area of concentration requires applied music and ensemble participation as follows:
   - *Music education:* seven semesters of applied music and seven semesters of major ensembles
   - *Composition:* eight semesters of applied music and six semesters of ensembles
   - *Applied music:*
     eight semesters of applied music (includes eight credits at the 100-level and eight credits at the 300-level) and 12 semester hours of ensembles
   - *Music therapy:* seven semesters of applied music and seven semesters of major ensemble

   Appropriate proficiency levels as defined by the Department of Music faculty must be passed for students to progress to upper-level applied music study.
3. Each area of concentration also requires degree candidates to present at least one recital as follows:
   - *Music education:* a 30-minute senior recital
   - *Composition:* a recital of representative works
   - *Applied Music*: two 60-minute recitals
   - *Music therapy:* a 30-minute senior recital

Areas of Concentration

Music Education

A student choosing the option of music education must complete the following courses in addition to the common experiences listed above:

- **MUS 205 Orientation to Music Education**
- **MUS 351 Teaching String Instruments**
- **MUS 352 Teaching Woodwind Instruments**
- **MUS 353 Teaching Brass Instruments**
- **MUS 354 Teaching Percussion Instruments**
- **MUS 355 Teaching Vocal/Choral Music**
- **MUS 444 Elementary Music Curriculum and Methods**
- **MUS 445 Secondary Music Curriculum and Methods**
- **MUS 446 Instrumental Methods**
- **MUS 454 Elementary Music Field Experience**
- **MUS 455 Secondary Music Field Experience**
- **MUS 461 Conducting School Ensembles**
- **EDB 400 Communication and Collaboration**
- **EDC 300 Diversity in Education Settings**
- **EDL 305 Reading in the Content Areas**
- **ESE 404 Teaching Students of Varying Abilities**
- **EST 483 Multiage Student Teaching** (10 hrs.)

Composition.

A student choosing the option in composition must complete the following music courses in addition to the common experiences listed above:

- **MUS 218 Composition** (four semesters)
- **MUS 321 Composition Forum** (eight semesters)
- **MUS 341 Counterpoint**
- **MUS 418 Composition** (four semesters)
- **MUS 427**, **428 Computer Music and MIDI I, II**
- **MUS 451 Orchestration**
- **MUS 452 Career in Composition**
- Electives: three semester hours

Applied Music

A student choosing the option in applied music must complete the following courses in addition to the common experiences listed above:

- **MUS 310 The Business of Music**
- Electives in Music: 6 semester hours chosen from among the following: **MUS 108 Opera Theater Workshop**; **MUS 341 Counterpoint**; **MUS 356 Diction**; **MUS 361 Voice Class**; **MUS 427**, **428 Computer Music and MIDI I, II**; **MUS 381**, **382 Jazz Improvisation I, II**; **MUS 451 Orchestration**; **MUS 461 Conducting School Ensembles**.
- Other electives: 11 semester hours. Voice majors must take two semesters of German and two semesters of a Romance language.

Music Therapy

Completion of the program of study leads to certification as a Registered Music Therapist with the American Music Therapy Association. The mandatory internship must be completed at an AMTA approved facility. The following courses are taught through the Cleveland Music Therapy Consortium, which meets on the campus of Baldwin-Wallace College. *Note:* There is a tuition surcharge for Consortium courses.

A student choosing the option in Music Therapy must complete the following courses in addition to the common experiences listed above:

- **MUS 362 Guitar Class**
- **MUS 390 Introduction to Music Therapy**
- **MUS 391 Recreational Music: Programming and Leadership**
- **MUS 392 Music Therapy Practicum** (taken three times)
- **MUS 420 Music Therapy in Psychiatry and Rehabilitation**
- **MUS 421 Music Therapy with the Developmentally Disabled**
- **MUS 422 Psychology of Music I**
- **MUS 423 Psychology of Music II**
- **MUS 424 Program Development and Administration**
- **MUS 425 Internship in Music Therapy**

In order to fulfill AMTA requirements, Music Therapy majors must take the following courses as part of their General Education (GenEd) requirements:

- **PSY 101 Introduction to Psychology**
- **PSY 311 Behavioral Statistics** (or another statistics course)
- **PSY 345 Abnormal Psychology**
- **SOC 101 Introduction to Sociology**
- Sociology elective
- **BIO 266 Human Anatomy and Physiology I**
- **BIO 267 Human Anatomy and Physiology Lab**
- **COM 211 Communicating in Personal Relationships**
- **ESE 404 Teaching Students of Varying Abilities**
- PED two courses

Bachelor of Arts Degree

Major-Field Requirements

The program leading to a B.A. with a major in Music requires a total of 128 semester hours. The 33 semester hours listed under Common Experiences (**Section 1 above**) are required of B.A. candidates. Eight semester hours in applied music or ensemble, 11 semester hours of music electives and a three-semester-hour senior project are also required.

The Music major provides for numerous electives (26 semester hours) outside of music as well as for the General Education Requirements of the university and the College of Liberal Arts and Social Sciences requirements. The major's elective requirement provides the opportunity for broad coverage and even intensive work in other academic areas of interest. It also provides the additional background for an individually designed senior project which culminates the degree.

A full-time faculty member will be the principal adviser to and administrator of the program. Acceptance into the B.A. program in Music requires an interview with the program adviser and written confirmation from the program adviser of the student's acceptance as a candidate for the B.A. in Music. A successful entrance audition before a faculty committee is required of students whose focus in the B.A. program is to be performance. An entrance audition will also be required of applicants who have less than one year of private applied lessons at a recognized institution of higher education.

Music Minor

A minor in Music consists of 24 semester hours. Students accepted for the minor in Music are required to select 8 semester hours from the **Materials of Music**, **Harmony and Form**, and **Musicianship** sequences; **MUS 412 Music History II**. Five semester hours in applied music and/or ensembles are required.

A minimum of 8 semester hours shall be at the 300-400 level.

A full-time faculty member will be principal adviser to and administrator of the program, coordinating students' interests with available course choices and documenting completion of the required courses and credits for official registry of the music minor on the students' transcripts. Acceptance as a minor in Music requires an interview with the minor adviser and written confirmation from the adviser of the student's acceptance as a minor in Music.

All students are required to participate in audio and video recordings with their ensembles and cede individual performances rights to such recordings.

Philosophy

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    - **Majoring in Philosophy with a concentration in Ethics**
- **Certificate in Bioethics**
- **Minor in Philosophy**
- **PHL Courses**
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Philosophy (B.A.)
At-a-Glance

Minimum hours required for major:
32, including 16 hours of core courses in logic and the history of philosophy and 16 hours of electives, as described below

Minimum hours required for minor: 16 credit hours selected from courses eligible to count for the major

Advising: Designated faculty adviser; phone 687-3900.

Philosophy addresses fundamental questions about human knowledge and existence from constructive and critical perspectives. Students examine important historical and contemporary theories concerning ethics, social justice, reality and the nature and extent of knowledge. Logic is also central to philosophy, since the critical evaluation of the reasons given for ideas is as important as the study of the ideas themselves. For this reason, philosophy classes are well known for the presentation of philosophical problems and issues in a manner that stimulates questions, discussion, and a general appreciation for the pursuit of truth.

A philosophy major or minor is excellent preparation for fields such as law and business, which rely on skills of critical thinking, as well as for fields such as medicine and social work, where practitioners face ethical dilemmas in their work. Though useful in many careers, the study of philosophy can be expected to enrich a person's life beyond the rewards of the marketplace, through a deeper understanding of important beliefs and their foundations.

Major-Field Requirements

1. **Core Courses:** 16 credits;
    - **PHL 131 Deductive Logic I** *or*
      PHL 332 Deductive Logic II
    - **PHL 261 Ancient Philosophy**
    - **PHL 262 Medieval Philosophy**
    - **PHL 263 Early Modern Philosophy**
2. **Electives:** 16 credits, no more than 4 credits below the 300 level.

Majoring in Philosophy with a concentration in Ethics

Philosophy majors with an interest in ethics may declare a major in philosophy with a concentration in ethics. Students pursuing this program take core courses in the fundamentals of philosophy and ethics. Additional electives include courses in key areas of the study of values and conduct, such as the philosophy of art, religion, law, or politics, as well as courses in bioethics. A major in philosophy with a concentration in ethics is excellent preparation for advanced study in ethics, law, public administration, social work, and other fields in which ethical dilemmas arise amidst unresolved conflicts.

Requirements for a B.A. in Philosophy with a concentration in Ethics:

Core courses, 16 credits:

- **PHL 131 Deductive Logic**
- **PHL 211 Morals and Rights**, or
  PHL 213 Environmental Ethics, or
  PHL 240 Health Care Ethics, or
  PHL 215 Engineering Ethics
- **PHL 263 Early Modern Philosophy**
- **PHL 283 Introduction to Ethics**

Ethical Theory, 4 credits:

- **PHL 311 Ethics**

Value Theory Electives, at least 4 credits selected from the following fields:

- **PHL 321 Philosophy of Art**
- **PHL 331 Philosophy of Religion**

- **PHL 341 Philosophy of Law**
- **PHL 351 Social and Political Philosophy**

Other Upper-Level Electives, 8 credits:

> As part of the **Bioethics Certificate program**, the Philosophy Department offers a wide variety of upper-level courses in bioethics. Students may elect courses from those counting toward the Certificate in Bioethics, or any other advanced Philosophy courses.

Bioethics Certificate

The Undergraduate Certificate in Bioethics is designed primarily for persons preparing for careers in medicine, nursing, social work, psychology, education, one of the health sciences, or other health-related professions. Enrollment will be open to upper-level undergraduates, and others by petition. Both degree-seeking students and non-degree students are eligible. It can also serve upper-level students preparing for careers in law or business who wish to understand health policy, law, and clinical practice in relation to philosophy and ethics. The Certificate in Bioethics will attest that the student has completed a course of study in moral theory and clinical practice, law, or policy related to bioethics.

The Philosophy Department offers bioethics courses in both two-credit and four-credit formats. Students who have had a four-credit course in a particular area should not take a corresponding two-credit course, and vice versa.

The two-credit courses are:

- **PHL 420 Reasoning in Bioethics: Basic Issues**
- **PHL 421 Reasoning in Bioethics: Contextual Approaches**
- **PHL 422 Clinical Bioethics: Cases I**
- **PHL 423 Clinical Bioethics: Cases II**
- **PHL 424 Bioethics Policy: Prevention and Access**
- **PHL 425 Bioethics Policy: Technology**
- **PHL 426 Bioethics and Law: Regulation**
- **PHL 427 Bioethics and Law: Rights**
- **PHL 428 Bioethics: Special Topics**

The four-credit courses are:

- **PHL 440 Moral Reasoning and Bioethics**
- **PHL 441 Clinical Issues in Bioethics**
- **PHL 442 Policy Issues in Bioethics**
- **PHL 443 Bioethics and the Law**

The program requires a total of 12 semester hours in bioethics at the undergraduate level, distributed as described below, with a grade of at least 3.0 quality points in each:

1. Moral Reasoning Requirement (4 credits), fulfilled by taking:
    - **PHL 440, Moral Reasoning and Bioethics** , 4 credits, OR
    - **PHL 420, Reasoning in Bioethics: Basic Issues**, 2 credits
      AND
      PHL 421, Reasoning in Bioethics: Contextual Approaches, 2 credits.
2. Bioethics Electives (8 credits), chosen from the other courses listed above.

For additional information, contact the **Philosophy Department** at (216) 687-3900.

Philosophy Minor

Minimum hours required for minor: 16 credit hours selected from courses eligible to count for the major

Political Science

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- **Evening Program**
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Political Science (B.A.)
At-a-Glance

Minimum Hours Required for Major: 32

Minimum Hours Required for Minor: 16

Department Office and Contacts: Rhodes Tower 1744; Telephone: 687-4541; e-mail address: **v.varaljay@csuohio.edu**; home page: **http://www.csuohio.edu/polisci**. All political science faculty members can be reached through the home page, or by sending an e-mail to them at [first initial].[last name]@csuohio. edu. Several faculty members have their own home pages which can be accessed through the World Wide Web.

Special Tracks and Joint Programs: public service specialization, **political communication**

Foreign Study Abroad: China (Suzhou), Germany, France (Clermont) and others which can be arranged through the **Center for International Services and Programs**

Awards: Distinguished Student Award, Distinguished Senior Seminar Paper Award, Outstanding Student Intern Award, Membership in Pi Sigma Alpha National Political Science Honor Society

Admission to the Major: Majors in the regular political science program must complete **PSC 111 (Introduction to American Government)**
prior to declaring their major. Prospective majors are encouraged to take PSC 111 in their freshman year as part of their university General Education requirement. Then, early in the sophomore year, students should arrange a meeting with the department chair to discuss declaring a major. Transfer students from community colleges and other four-year institutions should declare their political science major as soon as possible after arriving on campus. *NOTE:* The prerequisite of PSC 111 does not apply to **International Relations** majors.

Advising: All prospective majors should schedule an appointment with the chair to discuss their education and career interests. On the basis of this meeting, students decide which political science program they will follow. They can see their adviser each semester to discuss the next semester's registration and any career or post-B.A. training issues. There are also separate advisers available to assist students with internships in public service or international relations.

Service Courses: In addition to the major, the Department of Political Science offers a number of courses which fulfill the university's General Education Requirements.

- **PSC 111 American Government** (4 hours) (Western Culture and Civilization, Social Science)
- **PSC 217 African-American Experience in Urban Politics** (African-American Experience/Diversity, Social Science) (3 hours)
- **PSC 227 Power, Authority and Culture in Nonwestern Communities** (Nonwestern Culture and Civilization, Social Science) (3 hours)
- **PSC 241 Freedom and Authority** (Western Culture and Civilization, Social Science) (3 hours)
- **PSC 305 Cultural Diversity in U.S. Politics** (African-American Experience, Diversity, Social Science) (4 hours)

In addition, a number of the department's 300-level courses have been designated as Western Culture and Civilization, Nonwestern Culture and Civilization, and Writing courses. Please check the course descriptions.

Additional Information:

The program in political science is designed to help students understand contemporary public policy, the importance of politics and democracy in their lives, and the means of influencing government to respond to collective needs. The Department of Political Science offers a major and a minor for both day and evening students. Details of the minor program are available in the department office.

The department also offers a public-service specialization as an alternative track to the regular departmental major. This specialization is designed specifically for those majors planning a career in the public sector, although it could prove equally useful to those seeking careers in the private sector. Details of this specialization are available in the department office. The department also offers a separate interdisciplinary major in international relations (**see separate listing**).

The political science curriculum stresses a broad understanding of the workings of political processes in the United States and abroad; the cultural and ideological bases of modern governments; and the acquisition of skills for evaluating public policies and participating in the political process. Political science bridges liberal arts and sciences, and the Cleveland State Department of Political Science stresses the importance of both scientific and humanistic approaches to the field.

A major in political science helps to prepare students for careers in government, the legal profession, politics, community

organizations, national and international nonprofit organizations, journalism and the mass media, and education. Many political science graduates take positions in business and industry as well.

Students must maintain at least a 2.0 GPA in political science courses in order to graduate with a major or minor.

Evening Program

The department offers a major and a minor in the evening. Required core courses are offered at night at least once during the regular academic year, and intermediate- and advanced-level courses are offered with sufficient regularity so that a student could complete the degree over a four-year period.

Major-Field Requirements

(32 semester hours)

A minimum of 32 hours in political science beyond PSC 111 is required for the major. The program is divided into three parts: the Common Core, Field Distribution Requirements, and Seminar (or Internship)

1. **Common Core**: 7 hours
    - **PSC 251 Introduction to Data Analysis** (3 hours)
      PLUS EITHER
    - **PSC 221 Comparative Politics** (4 hours)
      OR
      PSC 231 International Politics (4 hours)
2. **Field Distribution Requirements** (20 hours at the 300- to 400-level)
    A. One course in political theory (**PSC 340**, **341**, **342**) (4 hours)
    B. Two courses in American politics (8 hours)
    C. Two courses in the comparative/international politics field (8 hours)
3. **Seminar**
    (5 hours) Prerequisite: completion of Common Core and at least one 300- or 400-level course in the field, or permission of the instructor.

    One PSC 400-level seminar in any field (**PSC 420**-**PSC 424**)

Public Service Specialization

(36 Semester Hours)

Students who seek a political science program which is more oriented toward practical politics and government service can take the regular political science degree with a specialization in public service. Requirements of this program are identical to those of the political science major with two exceptions: public-service track majors take an internship (**PSC 401**, **402**, **403** or **405**, for 6 hours of credit) instead of the senior seminar, as their capstone course. They also take one course specifically related to their internship, as well as the usual field-distribution requirements for the major. This brings the major to a minimum of 36 semester credit hours.

Admission to the Public Service Track:

Students wishing to specialize in the public-service track must meet the same requirements as regular political science majors. They must complete **PSC 111 (Introduction to American Government)** prior to declaring their major. When they declare their major they should inform the chair of their intention to specialize in public service. They will then be assigned to the internship adviser for all further advising on their program and on their internship. Students will need a 3.0 in their major to enroll in an internship or permission of the instructor.

1. **Common Core**: 7 hours
    - **PSC 251 Introduction to Data Analysis** (3 hours)
      PLUS EITHER
    - **PSC 221 Comparative Politics** (4 hours)
      OR
      PSC 231 International Politics (4 hours)
2. **Field Distribution Requirements** (24 hours)
    A. One course in political theory (**PSC 340**, **341**, **342**) (4 hours)
    B. One course in American politics linked to the internship (4 hours). Students should select this course as a function of the Internship which they intend to pursue
    C. Two additional courses in American politics and institutions (other than **PSC 301** *or* **PSC 314**) in the series **312**-318 (8 hours)
    D. Two courses in the comparative/international politics field (8 hours)

    Tracks in Public Service

    A. Urban Politics: **PSC 301 Urban Politics and Policy**, any two 300-level courses in the American sub-field, and the City Council Internship (**PSC 401**)
    B. State Politics: **PSC 314 State Government and Politics**, any two 300-level courses in the American sub-field, and the State Government Internship (**PSC 405**)
    C. National Politics: Any three courses in the American field, excluding **PSC 301** or **PSC 314**, plus the Administrative Internship (**PSC 403**)
    D. Electoral Politics: **PSC 317 Parties and Elections**, any two courses in the American sub-field, and Campaign Politics Internship (**PSC 402**)

3. **Internship** (6 hours)
   Prerequisite: completion of Common Core, relevant 300-level course in preparation for the internship (**PSC 301**, **PSC 305**, **PSC 314**, **PSC 317**) and a 3.0 grade-point average in their major to be eligible for an internship, *or* permission of the instructor. **PSC 401 City Council Internship Program**, **PSC 402 Campaign Politics Internship**, **PSC 403 Administrative Internship Program**, **PSC 405 State Government Administrative Internship**.

The Minor

The department allows students to take a minor in any one of four areas of political science: American Politics, Law and Theory (of particular interest to prelaw students not wishing to major in Political Science), Comparative Politics, and International Politics.

Requirements for the Minor: 16 to 17 semester hours depending on choice of courses

Minor in American Politics

- **PSC 111** (4 hours)
- 2 courses in American Politics at 300-level (8 hours)
- Any additional 300- or 400-level course, including **PSC 420 Seminar in American Politics** (5 hours)

Minor in Law and Theory

- **PSC 111** (4 hours)
- Two 300-level Law or Theory courses
  (**PSC 310**, **PSC 311**, **PSC 340**, **PSC 341**, **PSC 342**)
- Any additional 300- or 400-level course, including **PSC 423 Seminar in Legal Theory** (5 hours)

Minor in Comparative Politics:

- **PSC 221** (4 hours)
- 2 comparative politics courses at 300-level from among **PSC 323**, **PSC 324**, **PSC 325**, **PSC 326**, **PSC 332**, **PSC 333**, **PSC 335**, **PSC 337**, **PSC 338**
- Any additional 300- or 400-level course, including **PSC 421 Seminar in Comparative Politics** (5 hours)

Minor in International Politics:

- **PSC 231** (4 hours)
- Two international politics courses at 300-level from among **PSC 321**, **PSC 327**, **PSC 328**, **PSC 330**, **PSC 331**, **PSC 334**
- Any additional 300- or 400-level course, including **PSC 422 Seminar in International Politics** (5 hours)

Certificates

- **Central and Eastern European Studies**
- International Studies
  - **Language and Culture for Global Affairs**
  - **Cross-Cultural Communication**
- **Latin American Studies**

Central and Eastern European Studies (Certificate)

The re-emergence of the idea of Central Europe has been one of the most significant developments of this decade. The "lands between," as those countries have been called, have historically been deeply influenced, and at times dominated, by Russia and Germany.

Since the dissolution of the Soviet Union, the reunification of Germany, and the end of the Cold War, Germany's influence in these states has strengthened.

While Germany will play the primary role in the economic and political near-term future of Eastern and Central Europe, the influence and importance of Russia cannot be ignored. A coherent program focusing on Central and Eastern Europe, including Germany and Russia, therefore makes sense. An increasing number of students are focusing on Germany, Russia, and the lands between in their studies. There are also a large number of students and potential students in the Cleveland area whose families originally came from Central and Eastern Europe who might well benefit from this program.

This certificate program should be useful to students across the university to add an international focus to their studies. Members of the Greater Cleveland community, especially those with business interests in the area, may also find this program of particular value.

Required Courses:

Students wishing to earn a Certificate in Central and Eastern European Studies must complete 16 semester hours from the following list of courses. Students must take courses from at least two different disciplines. If the student is completing a major in one of these fields, only one course taken to meet the minimum major requirement may also be counted toward the certificate.

- **ENF 216 Foreign Film** (with appropriate topic)
- **ENF 217 Foreign Film** (with appropriate topic) (WAC)

- **GER 235 Germany Today**
- **GER 240 Field Studies**
- **GER 402 Advanced Composition and Conversation** (when taught as a Culture Course)
- **GER 448 German Culture and Civilization**
- **GER 493 Special Topics in German**
- **HIS 360 History of Russia to 1900**
- **HIS 361 History of Modern Russia**
- **HIS 362 Modern Eastern Europe**
- **HIS 393 Special Topics in History** (with appropriate topic)
- **MLA 115 Contemporary Western Cultures** (with appropriate topic)
- **PSC 324 Russia and The Successor States** (WAC)
- **PSC 338 Central and Eastern Europe** (WAC)
- **PSC 394 Special Topics** (with appropriate topic)
- **PSC 421 Seminar in Comparative Politics** (with appropriate topic) (WAC)

Other special topics courses in these or other departments may be taken with approval of the program committee.

For additional information contact: the **Department of Political Science** (216)687-4541, the **Department of History** (216)687-3920, or the **Department of Modern Languages** (216)687-4645.

Latin American Studies (Certificate)

The interdisciplinary nature of the program allows students to supplement their majors with relevant skills provided by other disciplines. A History major could demonstrate language and other humanities skills, as well as social science competence, without having to complete a minor in any one (not to mention all) of those areas. Similarly, a Political Science major could add the Latin American Studies certificate to show competence in the humanities.

International business students may well want to concentrate on Latin American Studies to fulfill the requirement for courses outside the College of Business Administration. The certificate program may enhance employment possibilities or satisfy personal interests.

Curricular Philosophy

1. Students must have some common knowledge. This argues for a core, but given the frequency of offerings, it would be impractical to identify mandatory core courses.
2. Students should have the freedom to build a set of courses which provides a personal and professional perspective within the framework of the certificate program.
3. The study of languages is essential for communication across cultures.
4. Study in the country or culture of interest is a preferred avenue to prepare for a career that crosses cultures.
5. Specialization in an area implies effort and achievement beyond minimal standards. A relatively high standard of student work in this certificate affirms the college's quest for continued excellence.

Proposed Curriculum:

(16 semester credits)

A. **Basic Courses**
   - at least 6 credits must come from among the following, and must be in departments other than the student's major(s):
     - **ANT 352 Native South Americans**
     - **HIS 165 Intro. to Latin American History**
     - **PSC 333 Latin American Politics**
     - **SPN 203 Culture and Civilization** (predominantly Spanish America)

B. **Electives** - the remaining credits will be chosen from among these courses:
     - **ART 388 African-American Art** (including Brazilian)
     - **HIS 366 Colonial Latin America**
     - **HIS 367 Modern Latin America**
     - **PSC 326 Politics of the Third World**
     - **SPN 346 Latin American Civilization**
     - **SPN 372 Introduction to Spanish American Literature**
     - **SPN 484 Studies in Spanish American Literature** (sample topic: Theater of Protest in Latin America)

   (or from among the courses in "A" above not counted toward that requirement)
   Other courses may apply toward elective credit with the approval of the Program Committee.

C. All students must fulfill the college foreign-language requirement in either Spanish or Portuguese. In addition, of the courses taken toward the certificate, one must be designated SPN (in Spanish) (or the equivalent in Portuguese). If the student has declared a Spanish major or minor, this requirement will not apply.

D. Foreign study in a Latin American country will be encouraged. Exchange programs will be explored as appropriate through faculty contacts and the director of International Programs. Up to 6 credits of study abroad which is of the nature of the courses in the Basic and Elective curriculum may be applied toward elective credit for the certificate.

E. A minimum cumulative GPA of 2.5 is required for certificate course work. No more than one S/U course may be counted toward the certificate.

For additional information contact: the **Department of Anthropology** 687-2414, the **Department of History** 687-3920, the **Department of Political Science** 687-4541, or the **Department of Modern Languages** 687-4645.

Religious Studies

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Religious Studies (B.A.)

At-a-Glance

Minimum hours required for major: 34
(28 if a second major)

Minimum hours required for minor: 18

Advising: department chairperson, phone: (216) 687-2170.

Religion is an important aspect of every civilization. In order to fully understand a civilization, it is necessary to understand the religious phenomena in it. Therefore, it is the purpose of this program to supply the student with data, methods, and tools to facilitate an understanding of religion and to provide a preparation for a wide range of professional and graduate training.

Major-Field Requirements

The Department of Religious Studies requires 34 credit hours for a major. Of the 34 required credit hours, at least 20 credits must be in 300- or 400-level courses. The specific courses required for the major will be determined on an individual basis in consultation with a departmental adviser. Religious Studies 498 is required for all majors.

A Religious Studies major who wishes to complete a second major in another field may have the number of credits required for the Religious Studies major reduced from 34 to 28.

Religious Studies Minor

The Department of Religious Studies requires 18 credit hours for a minor. Of the 18 required credit hours, at least 12 credits must be in 300- or 400-level courses.

Courses in Cognate Fields

The Department of Religious Studies will allow students to take courses offered by cognate departments to satisfy some requirements for the major and minor. These courses must be approved by the Department of Religious Studies. A student may take up to 8 hours for the major or up to 4 hours for the minor.

A major or a minor in Religious Studies is not available to evening students.

Social Science

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Social Science (B.A.)

At-a-Glance

Admission to major: No requirement other than good academic standing in the College of Liberal Arts and Social Sciences

Hours for major:
48 (including 11 hours in three of the following fields and 15 hours in the other: sociology, political science, economics and psychology)

Advising: Individual faculty advisers and Student Handbook

Student Organization: Sociology Club

For Information: Contact the Sociology Department. Phone 687-4500

The major in Social Science is designed for students seeking a broad, diverse background as preparation for various occupations or for more specialized training in such fields as law, journalism, the ministry, social work, or education.

Major-Field Requirements

Students electing a major in Social Science must complete a total of 48 semester hours distributed among **economics**, **political science**, **psychology**, and **sociology**. Fifteen hours must be earned in one of these fields and 11 hours in each of the remaining three. Although the mix of upper- and lower-division courses is not specified, students should keep in mind that 42 upper-division credits are required for a degree in Liberal Arts and Social Sciences. This composite major is administered by the Department of Sociology.

Social Studies

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Social Studies (B.A.)
At-a-Glance

Mission:
The primary mission of the Social Studies major is to provide students with the content competency to teach Social Studies in secondary schools. It forms the content knowledge basis for students to initiate teaching professions and provides the necessary critical thinking, analytical reasoning, and academic judgment skills upon which to embark on a lifetime of intellectual growth.

Hours Required in the Major:
73 - 82 hours of specific courses or thematic areas chosen from history, anthropology, economics, political science and sociology. Some of these courses also can be used to partially fulfill General Education requirements.

Teaching Licensure:
A comprehensive program for students seeking teaching licensure in Social Studies is administered through the College of Education and Human Services. Interested students are urged to **contact the college** for further information.

Advising: Students register their intentions to pursue an academic major in Social Studies with the **Department of History**; those interested in teaching must be admitted to the teaching licensure program in the College of Education and Human Services.

The Social Studies major will have an academic adviser in the History Department in the College of Liberal Arts and Social Sciences as assigned by the department. Those seeking a teaching license should have an adviser for education course work in the **College of Education and Human Services**.

This interdisciplinary major is administered by the Department of History and is primarily intended for students seeking secondary licensure. It provides comprehensive training in history and related social-studies fields taught in Ohio secondary schools. Interested students should also consider pursuing academic major(s) and/or academic minor(s) in **history**, **political science**, or **economics**.

For information: Call Tom Humphrey, (216) 523-7183, or the **History Department**, (216) 687-3920 or **history.department@csuohio.edu** . Those interested in licensure should contact the **College of Education and Human Services**.

Major-Field Requirements

The curriculum for the Social Studies major consists of a common core and one area of concentration chosen from three areas. The following courses are required of all Social Studies majors:

The Core:

- **HIS 101 Western Civilization I**
  OR
  HIS 102 Western Civilization II
- **HIS 111 U.S. History to 1877**
- **HIS 112 U.S. History since 1877**
- **HIS 165 Introduction to Latin American History**
  OR
  HIS 175 Introduction to African History
- **HIS 200 Introduction to Geography**
- **HIS 215 History of African-Americans to 1877**
  OR
  HIS 216 History of African-Americans since 1877
- **HIS 301 American Cultural History**
  OR
  HIS 304 U.S. Urban History
- **HIS 370 World History**
- **HIS 390 Introduction to Social Studies**
- **HIS 400 Local History Seminar**
- **ECN 201 Principles of Macroeconomics**
- **ECN 202 Principles of Microeconomics**
- **PSC 111 American Government**
- **PSC 221 Comparative Politics**
  OR
  PSC 231 International Politics
- **PSC/HIS/ANT/SOC 227 Power, Authority and Society in Non-Western Communities**
- **ANT 102 The Study of Culture**
  OR

HIS 323 Recent American History
OR
SOC 101 Introduction to Sociology

Complementary Core:

(Select 1 of the 3 areas below)

- **Anthropology Core**
  - Two of the following:
    - **ANT 270 AfricanAmerican Culture**
    - **ANT 324 Anthropology of Gender**
    - **ANT 351 Native North Americans**
  - Two of the following:
    - **ANT 352 Native South Americans**
    - **ANT 353 Cultures of Africa**
    - **ANT 354 Cultures of Oceania**
    - **ANT 394 Area Studies in Anthropology**
- **Political Science Core**
  - **PSC 217 Urban Politics & the African American Experience**
    OR
    PSC 305 Cultural Diversity in U.S. Politics
  - **PSC 318 The Presidency and Congress**
    OR
    PSC 342 American Political Thought
  - Two of the following:
    - **PSC 310 Constitutional Law**
    - **PSC 311 Civil Rights and Civil Liberties**
    - **PSC 314 State Government and Politics**
    - **PSC 315 Public Policy Administration**
    - **PSC 327 Peaceful World Change**
- **Sociology Core**
  - **SOC 101 Introduction to Sociology**
  - One of the following:
    - **SOC 342 Sociology of Law**
    - **SOC 383 Political Sociology**
  - Two of the following:
    - **SOC 201 Race, Class, and Gender**
    - **SOC 203 Sociology of Poverty**
    - **SOC 215 Black/White Interaction**
    - **SOC 267 Studies in the Black Family**
    - **SOC 317 Sociology of Gender**
    - **SOC 380 Minorities**

Distribution: Additional courses needed to ensure that at least one course is included from **Anthropology** and **Sociology**.

Sociology

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Sociology (B.A.)

At-a-Glance

Admission to major: No requirement other than good academic standing in the College of Liberal Arts and Social Sciences.

Minimum hours required for major: 33 (including **SOC 101**, **201**, **352**, **353**, **354** and four other Sociology courses, with at least 3 at the 300- to 400-level)

Minimum hours required for minor in sociology: 18 (including **SOC 101**, **352**, and **353**, and at least one of the two electives at the 300- to 400-level)

Minimum hours required for minor in criminal justice: 23 (**see below**)

Advising: Individual faculty advisers and Student Handbook.

Student Honorary Society: Alpha Kappa Delta

Awards: Annual Distinguished Sociology/Criminology Student Award

Student Organizations: Sociology Club

For Information: Contact the **Sociology Department**. Phone: (216) 687-4500

Sociology is the study of social life and the connections among persons in groups and institutions that helps to illuminate and explain the causes and consequences of human behavior. It focuses on the interrelationships among political, economic, cultural, and social structures by combining scientific and humanistic perspectives to study a wide range of issues, from face-to-face interaction at the micro level to conflict between developed and less-developed nations at the macro level.

Sociology students at Cleveland State University learn a perspective through which to analyze modern social life. Substantive courses in such areas as criminology, marriage and family, third world, poverty, social inequality, mental illness, gerontology, and education, examine specific social relationships and institutions. In core courses students are taught how to do research using both quantitative and qualitative methods and gain a greater appreciation of sociological theories.

While learning research skills and an understanding of the sociological perspective, majors in sociology develop the critical thinking and writing skills basic to a sound liberal-arts education to prepare them for a wide range of careers. Upon graduation, some students pursue graduate and professional degrees while others gain employment in the criminal justice system, social services, non-profits, and corporations.

Major-Field Requirements

In establishing the requirements of the major in Sociology, the Department of Sociology maintains these objectives: to introduce students to the sociological perspective and its uses, to teach the principles of sociological research and the fundamental skills needed to use them, and to prepare students for advanced training at the professional and graduate-school levels.

A minimum of 33 hours in Sociology is required for a major. The hours must include these core courses:

- **SOC 101 Introduction to Sociology**
- **SOC 201 Race, Class, and Gender**
- **SOC 352 Sociological Theory**
- **SOC 353 Methods of Social Research**
- **SOC 354 Quantitative Sociological Research**

In addition, students must complete four elective courses, at least three of which must be at the 300- to 400-level.

Although a student is free to complete the major requirements with any combination of Sociology electives, the department believes that the major program is greatly strengthened and better organized when there is judicious selection of electives. The department makes available a faculty adviser to every student who declares a major in Sociology. The student is expected to plan a total academic program with the assistance of a departmental adviser.

When appropriately selected, the Sociology offerings permit a student to concentrate in one of the following subfields: deviance; aging and the life course; race, class, and gender; and social organization and change.

The major in sociology with a concentration in criminology is no longer offered. Students currently enrolled in this program should contact the department for information about completing the concentration or changing to the criminology major.

Internships in Sociology

Students may qualify for a 4-credit internship in Sociology (**SOC 490**) by achieving an overall GPA of 3.0 in the major or minor, completion of the required courses, and junior or senior standing. Students who qualify must arrange an internship with the departmental coordinator (call 216-687-4500). Internships may be for up to 8 credit hours. However, only 4 of these hours may be applied toward the requirements for the major.

Honors Program

The honors program is intended as a capstone experience for sociology majors who have high GPAs and would like more in-depth training in sociology. A variety of honors experiences tailored to students' interests is offered including additional work in an established course, enrollment in a graduate course, participation in a faculty member's research project, supervised independent research, and service learning. Students must apply for the honors program no later than the end of their junior year; have completed 2 of the 4 upper-level core courses and a minimum of 60 credit hours; and have an accumulated GPA of 3.3 or higher in all classes. To graduate with Honors in Sociology, a student must participate in the honors program for two semesters, at least 4 hours per semester; receive a grade of at least B+ in each course taken for honors credit; and graduate with at least a 3.3 overall GPA. For further information contact the Department of Sociology office, (216) 687-4500.

Sociology Minor

A minimum of 18 hours in sociology is required for a minor. The 18 hours must include:

- **SOC 101 Introduction to Sociology**
- **SOC 352 Sociological Theory**
- **SOC 353 Methods of Social Research**

In addition, students must complete two electives, at least one of which must be at the 300- to 400-level.

Spanish

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Spanish (B.A.)
At-a-Glance

Admission to major: Completion of **SPN 102** or equivalent

Minimum hours required for major: 36

Minimum hours required for minor: 18

Special tracks:
The Spanish major integrates the study of Spanish Peninsular and Latin American areas of literature and culture. Students can also concentrate in language studies or combine any of the above areas for teaching or other professional careers.

Advising: Faculty advisers for majors, minors and prospective students. Phone (216) 687-4645

Student organizations: Los Latinos Unidos, Phi Sigma Iota Honorary Society

Transfer Students.
Transfer students are required to complete at least 18 credit hours while in residence at Cleveland State University in order to earn a degree.

Additional information: Study-abroad programs in Mexico and Spain

The sequence of courses in Spanish leads from competence in Spanish language skills to thorough understanding of Hispanic language, civilization, and literature. Programs concentrate equally on Spanish and Hispanic-American content through a cyclical offering of courses. Programs in the Spanish minor, major, and graduate studies are available, including the B.A. with Honors in Spanish. Spanish is also a valuable adjunct skill to many other major programs or careers. Over the next few decades virtually every area of professional activity in this country will become more involved with Spanish-speaking Americans and with corporations in Spanish-speaking countries.

Course Information:
A student majoring in Spanish will find career opportunities in teaching, foreign service, industry, or communications. Language study involves mastery both of performance skills (speaking, reading, writing, understanding) and of a subject matter. The subject matter may be the language itself, its literature, culture, or pedagogy.

Courses numbered from 100 to 114 in Spanish generally emphasize development of performance skills, as do those at higher levels, in courses numbered 200 to 214, 300 to 314, and 400 to 414. Courses numbered 115 to 134 (and corresponding numbers at the upper levels) generally emphasize the nature of language. Courses numbered 135 to 164 (and corresponding numbers at the upper levels) generally emphasize the culture and history of specific languages. Courses numbered 165 to 189 (and corresponding numbers at the upper levels) generally emphasize the literatures of the specific languages. Courses numbered 190 – 199 (and corresponding numbers at the upper level) are independent and specialized courses.

Language Skill Courses:
A student who has completed Spanish course work in high school or at another institution who wishes to continue the study of Spanish must begin course work for credit at the level consistent with academic background. A placement test is required for all students with less than three years of high-school Spanish or the equivalent. Students who have had three or more years of previous study must consult with an adviser in the foreign language department to determine the appropriate level.

Native speakers:
As a general guideline, students who read and write Spanish fluently must begin course work for credit at the 300-level or higher. Students considering a major in Spanish should consult an adviser in the Department of Modern Languages as early as possible to plan an effective course of study.

Retroactive Credit.
Students are eligible to earn up to 14 "retroactive" credits for previous knowledge of Spanish. This policy is for students who have completed a foreign language skills course and who earned a B or better in that course. For example, if your first Spanish skills course is **SPN 102** and you receive an A or B, you can receive credit for **SPN 101**. Consult the **Department of Modern Languages** (216) 687-4645 for further information.

Credit by Examination.
Students who successfully pass the College Level Placement Examination (CLEP test) in Spanish may earn 14 credit-hours for previous knowledge of Spanish. For information about the examination, eligibility, and dates when it is given, contact the **Cleveland State Testing Center**
(216) 687-2277. Students who receive a score of 3, 4 or 5 on the Advanced Placement Spanish language examination may earn 18 credit hours for SPN (**101**, **102**, **201**, and **202**).

Major-Field Requirements

Students seeking a major in Spanish must complete 36 credit hours in Spanish above the 100 level, distributed as follows:

- **Core A:** Composition and Conversation Requirements:
  Sixteen credit hours of courses in composition and conversation: **SPN 201**, **202**, **203**, **207**, **301**, **302**, **303**, **393** (Business Spanish); **402**; or equivalent as determined by the Spanish faculty, of which no more than 8 credit hours can be at the 200 level. Students beginning at the 300 level will take 8 credit hours at the 300- and 400-level.
- **Core B:** Distribution Requirements:
  One course each in phonetics (**SPN 315**), in literature (**SPN 371** or **SPN 372**), and in culture and civilization (**SPN 345** or **SPN 346**) is required (three courses total).

Notes: No more than 8 credit hours at the 200 level will be counted. At least 9 credit-hours must be at the 400 level. At least 28 credit hours must be in upper-division courses at the 300- or 400-level. Up to 6 credit hours of practicum in Spanish or independent study may count toward the major. These credits must be approved by the Spanish faculty. No grade below C may count toward the major.

Minor-Field Requirements

A minor in Spanish consists of 18 credit hours beyond the 100 level, of which 9 credit hours must be at the 300- and 400-level. Transfer students must complete 9 hours of the 18 required for the minor in residence at Cleveland State University. Students seeking a minor in Spanish must have an adviser in Spanish to assist in the selection of courses. No grade below C in a minor course may count toward the minor.

Study Abroad

Majors are encouraged to arrange for study in a Spanish-speaking country. The department administers summer programs in Mexico and Spain. Credit earned on these programs is considered part of the Cleveland State University Spanish sequence.

Students may also undertake independent study abroad at other institutions. Normally, up to 16 hours of independent study abroad may count toward the major requirements (additional credit may count toward the total hours needed for graduation). Majors should seek departmental approval of foreign-study plans before departure, and must complete at least two 300-level or 400-level courses in Spanish after return from independent study abroad. (**See also the Study Abroad section listed under "College of Liberal Arts and Social Sciences."**)

For further information regarding the possibility of foreign study and summer programs available through the Department of Modern Languages, contact the **department office**, (216) 687-4645.

Teacher Licensure

Students preparing to teach will fulfill the requirements for the B.A. in Spanish and the licensure sequence in the College of Education and Human Services for the **Specialization in Multi-Age Foreign Language Education (PreK-12)**. They must also pass national examinations and fulfill state requirements.

The PreK-12 licensure sequence includes courses in elementary and secondary foreign-language methods. Students will need to follow the sequence as described in the **College of Education and Human Services**. Before admission to student teaching, students must pass a Praxis II Principles of Learning and Teaching Test (K-6 or 5-9 or 7-12), the Praxis II Content Knowledge test, and demonstrate oral proficiency at the ACTFL “Advanced-Low” level. Students will need to have their skill level assessed as early as possible in the program and then work with their advisers to plan study experiences that provide appropriate opportunities for improvement. Modern Language methods courses must be completed the semester preceding student teaching.

Women's Studies

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Women's Studies (B.A.)
At-a-Glance

Admission to the major: Requires good academic standing in the College of Liberal Arts and Social Sciences.

Minimum hours required for the major: 38 distributed in three fields

Minimum hours required for the minor: 16 distributed in three fields

Awards: Lanette S. Flower Scholarship, Ruth Ratner Miller Scholar, WEAL Scholarship

Advising: Individual faculty adviser, Internet Web page, Women's Studies handbook and career information package

Student organization: Student Women's Association

For Information: Contact the **Women's Comprehensive Program**. Telephone: (216) 687-4674

An interdisciplinary field of inquiry, women's studies encourages students to consider ways to restructure social institutions and interactions for a more democratic society and a stronger economy. By addressing past and present social disparities, women's studies promotes intellectual and practical problem-solving, on both the individual and societal levels. Women's studies helps students develop written and oral communication skills and the analytical and critical thinking skills needed to prepare them for leadership and a variety of careers in an increasingly diverse economic and political environment. Women's studies students will develop these skills while receiving a well-rounded liberal-arts education. These skills will prepare graduates for graduate work in women's studies or related fields, or for career opportunities in the changing work force and for the competitive economic and social realities of the 21 st century. Women's studies enables students to:

- transcend traditional disciplinary boundaries, to analyze the role of gender in shaping human societies of the past and the present
- discover and communicate new knowledge and encourage new research in neglected areas
- develop a more balanced and accurate interpretation of existing knowledge
- comprehend crucial intersection of race, class, and gender in the global society and in their own lives
- develop the critical and analytical, transferable skills required for success in our rapidly changing economy.

Major-Field Requirements

To earn a Women's Studies major, students must take a minimum of 38 semester hours in Women's Studies courses. Courses are to be distributed over three departments with at least 6 hours in the humanities and 6 hours in the social sciences. Independent study (**WST 496**) may be included as part of the major. A grade of C or better must be earned in courses used to fulfill requirements for the major. Students are encouraged to use this framework to develop a more specialized Women's Studies curriculum based upon their particular career interests.

Required Courses

- **WST 151 Intro to Women's Studies**
- **WST 351 Practicum in Women's Studies**
- **WST 495 Advanced Seminar in Women's Studies**

Additional Women's Studies Courses

In addition to this list, certain special-topics courses may apply to the major if approved by the Women's Studies Faculty Committee. See individual departmental listing for course descriptions and prerequisites.

- **ANT 324 Anthropology of Gender**
- **ANT 343 Language and Gender**
- **EDB 455 Women and Education**
- **ENF 214 Women Writers in English Translation**
- **ENF 215 Women Writers in English Translation**
- **ENG 207 African American Literature** with Women's Studies faculty
- **ENG 208 Womanism/Feminism**
- **ENG 330 Studies in Ancient Literature** *Feminist Approaches to Classical Literature*
- **ENG 333 Studies in 18th Century British Literature** *Feminist Approaches to 18th Century Fiction*
- **ENG 334 Studies in 19th Century British Literature** *Feminist Approaches to 19th Century Fiction*

- **ENG 335 Studies in 20th Century British Literature** *Feminist Approaches to 20th Century Fiction*
- **ENG 363 Gender Issues in Literature**
- **ENG 375 Major Authors** *(Jane Austen, the Bronte sisters, Emily Dickinson, Toni Morrison. Virginia Woolf)*
- **FRN 365 Readings in French Literature** *French Decadence: Literature & Sexuality*
- **FRN 493 Special Topics in French** *French Women Writers: From the Middle Ages to the Present*
- **HIS 284 History of Women**
- **HIS 318 History of the Family**
- **HIS 354 European Women's History**
- **HIS 393 Special Topics in History**: *History of Women in America, History of African-American Women*
- **NUR 493: Special Topics: Women's Health Taking Charge and Promoting Health for Women**
- **PHL 253 Philosophy of Feminism**
- **PSY 255 Psychology of Women**
- **REL 260 Women and Religion**
- **REL 370 Sexual Ethics**
- **REL 376 Women in Early Christianity**
- **SOC 201 Race, Class, Gender**
- **SOC 302 Women in Corporate America**
- **SOC 310 Sociology of Marriage and Family**
- **SOC 317 Sociology of Gender**
- **SOC 349 Women and Crime**
- **SPN 484 Studies in Spanish American Literature**: *Latin American Women Writers in the 20th Century*
- **USA 455 Gender and Leadership**
- **UST 455 Gender and Leadership**
- **WST 393 Special Topics in Women's Studies**: *The Women's Movement, Women and International Social Development*

Women's Studies Minor

- **Go to complete description of Women's Studies Minor**

A minor in Women's Studies is an excellent complement to majors in many other disciplines. To earn a Women's Studies minor, students must take a minimum of 16 semester hours in designated Women's Studies courses, 8 hours of which must be at the 300/400 level. Courses must be selected from at least three different academic areas, and include at least one humanities course, and one social-science course.

The Advanced Seminar in Women's Studies (**WST 495**) is required for the minor in Women's Studies.

Social Work

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Social Work (B.S.W.)
At-a-Glance

Minimum Hours Required for the Major:
A student needs 48 credit hours in core Social Work courses to complete the major, not including the University/College's General Education/Liberal Arts requirements.

Contact Information: For additional information contact the Undergraduate Social Work Program: Phone 216- 687-4570, E-mail **swk@csuohio.edu**, Web site **www.csuohio.edu/socialwork**

Accreditation:
The undergraduate Social Work Program is fully accredited by the Commission on Accreditation, Council on Social Work Education. Students matriculating in the program are eligible for student membership in the National Association of Social Workers and the National Association of Black Social Workers. Graduates of the program are eligible for full professional membership in both organizations.

Social Work Licensure:
Students graduating from the program are eligible to take the Ohio Social Work Licensure Examination (LSW). **Only students graduating from a fully accredited undergraduate program in social work are eligible to take the Ohio Social Work Licensure Examination.**

Honors Program:
The Honors Program in social work is designed to develop a closer identification with social work scholars, practitioners and academicians. Social Work majors during the junior/senior year of study are eligible for this program. In order to qualify, social work majors need a 3.25 cumulative GPA in all courses in the university, and a 3.5 GPA in social work courses.

Study Abroad Program:
The Social Work Program has two Study Abroad Programs: (1) Africa Experience in Zimbabwe, See Course Description **SWK 398**, and (2) India Experience, See Course Description **SWK 399** and **SWK 499**.

Student Organizations: There are two student organizations in the School of Social Work. **Social Work in Action (SWA)** is a student-run organization that provides orientation and opportunities for its members to become involved in community service projects, internal and external to the university community. Community participation is in keeping with the historical service tradition of the social-work profession. Also, the organization provides students with the opportunity to provide input, by serving on various committees, in the governance of the School of Social Work. Membership in SWA is open to all social work majors. **Delta Zeta Chapter of Phi Alpha, a National Honor Society for Social Work Students.** The Delta Zeta Chapter is open to students majoring in social work with an overall GPA of 3.25. Each year the Delta Zeta Chapter of Phi Alpha awards a scholarship to one of its members with the highest GPA.

Social Work Mission:

The mission of undergraduate social work education is to prepare students as beginning-level generalist social-work practitioners who are committed to the basic value of human dignity and the individual's right to determine his or her destiny guided by freedom, justice, and fairness. Furthermore, in generalist social work education, students are prepared to intervene professionally with individuals, families, groups, organizations and communities. The program offers students the values and ethics, knowledge, and skills necessary to meet human needs and improve the social conditions under which individuals, families, organizations and communities grow and develop, focusing on diversity and vulnerable populations.

Social Work offers a basic understanding of the human service system as it addresses current and future social concerns. The core Social Work curriculum prepares students for practice in diverse settings, such as child welfare, health, mental health, criminal justice, aging, community organization, and other areas of human service practice, in varied roles.

Graduates are eligible for membership in the National Association of Social Workers and/or the National Association of Black Social Workers, and are eligible to take the social-work licensure exam in Ohio. The program is fully accredited by the Council on Social Work Education.

Major

Admission to the Major

Application to the Social Work major may be submitted by students following their attendance at a School of Social Work orientation. To acquaint potential students with the Social Work major at Cleveland State University, the school conducts orientation sessions each semester that are designed to provide information about the social work profession, its history, fields of practice, current trends and social issues, the mission of the school, and the admission and curriculum requirements for majors. The prerequisites for entering the School of Social Work core curriculum for the major require students to:

- Have a cumulative 2.2 grade-point average and complete the following courses: Introduction to Social Work (**SWK 200**), American Government (**PSC 111**), and one course in Human Biology. The following courses in Human Biology at Cleveland

State University will meet the School of Social Work and the Commission on Accreditation requirements: **BIO 100**, **BIO 102**, and **BIO 106**. The School of Social Work will consider human biology courses from other colleges and universities that fulfill the above requirement.

- Submit one letter of reference from a teacher/professor, employer, religious leader, social worker, or a health or human services professional. The letter of reference should be written on official letterhead, and/or the writer should clearly identify her/his relationship to applicant.
- Submit a completed college checklist from the College of Liberal Arts and Social Sciences (CLASS).

Following the orientation and the submission of the application to the major the student is assigned a faculty adviser.

Advising

Majors are assigned a faculty adviser to individually guide and direct the student to ensure that the maximum benefit is gained in the pursuit of the social-work degree. Pre-major advising is available during regular office hours, Monday through Friday, from 9:00 a.m. to 4:00 p.m. A faculty member is available at all times to meet with students to discuss their interest in the major. Students considering the major are encouraged to visit the School of Social Work even prior to the regularly scheduled orientation dates.

Major-Field Requirements

1. GPA Requirements for the Major

   A Social Work major must maintain a 2.5 cumulative grade-point average in the Social Work core curriculum and a 2.2 cumulative grade-point average overall in the university. All majors in the program are assigned a faculty adviser to assist in planning their course of study, especially course sequencing, as they matriculate through the major. Students are expected to maintain regular contact with their adviser.

   During the first two years of matriculation at Cleveland State University, students are encouraged to focus on completing their general education/liberal arts requirements. The social work professional foundation curriculum builds vertically and horizontally on the liberal arts/general education foundation.

   The practice sequence courses are restricted to social work majors. All social work majors are required to complete the prescribed curriculum. No course credit is granted by the School of Social Work for life experiences.

2. Liberal Arts/General Education Requirements

   Biology - In addition to the natural science requirements of the university/college, students majoring in social work are required to complete one (1) course in human biology.

3. Social-Behavioral Science Requirements

   In addition to the socio-behavioral science requirements of the university/college, students majoring in social work are required to complete the following: (a) fifteen (15) credit hours taken in the School of Social Work-approved courses, (b) nine (9) credits in at least three (3) of the following fields must be completed prior to entry to the interventions sequence — anthropology, communication, economics, political science (excluding PSC 111), psychology, and sociology. In completing the requirements in socio-behavioral science, students may select through advising courses in other related fields.

4. Social Work Core Requirements - Forty-eight (48) Credit Hours
   - **SWK 200 Introduction to Social Work** - Prerequisite to the major
   - **SWK 201 Contemporary Social Welfare** - Prerequisite to SWK 300
   - **SWK 300 Social Welfare Policy**
   - **SWK 302 Human Behavior and Social Environment - Micro**
   - **SWK 303 Human Behavior and Social Environment - Macro**
   - **SWK 304 Perspectives on Social Work Research I** - Prerequisite to SWK 305
   - **SWK 305 Perspectives on Social Work Research II**
   - **SWK 350 Basic Generalist Practice** - (Prerequisite to SWK 385) *****
   - **SWK 385 Interventions I ****
   - **SWK 390 Field Practicum I**
   - **SWK 395 Field Seminar I**
   - **SWK 485 Interventions II**
   - **SWK 490 Field Practicum II**
   - **SWK 495 Field Seminar II**

   * Students must complete the following social work courses prior to SWK 350: SWK 200, SWK 201, SWK 300, SWK 302, SWK 303, SWK 304.
   ** All the above requirements must be taken prior to SWK 385- Interventions I, with the exception of SWK 305, which can be taken concurrently.
   [Return to Core Requirements list]

   The completion of a major in Social Work depends upon successful completion of two semesters of student practice in a professional social-work field setting. Students are required to obtain a grade of B or better in Interventions I and II, Field Practicum I and II, and Field Seminar I and II. Students receiving less than a B in the aforementioned courses may not proceed in the major without an assessment by the School of Social Work Admissions and Continuance Committee.

5. Elective courses include:
    - **SWK 150 The Black Experience and Contemporary Society**
    - **SWK 240 Administration of Justice**
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 340 Legal Aspects of Human Services**
    - **SWK 341 Corrections: Institutional and Community Based**
    - **SWK 342 Prisoners' Rights**
    - **SWK 351 Social Work in Community Development**
    - **SWK 352 Practice in Health Settings**
    - **SWK 353 Child Welfare Services**
    - **SWK 354 Mental Health**
    - **SWK 355 Asian American Experience**
    - **SWK 356 AIDS and Intervention**
    - **SWK 357 Social Work Values and Ethics**
    - **SWK 360 Alcoholism**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 372 Substance Abuse in Society**
    - **SWK 373 Social Work Honors Seminar**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **SWK 380 Special Topics in Social Work**
    - **SWK 396 Readings in Social Work**
    - **SWK 398 Africa Experience in Zimbabwe**
    - **SWK 399 India Experience - Pre-departure Orientation** (Prerequisite to SWK 499)
    - **SWK 465 Aging and Social Work**
    - **SWK 470 Problems and Issues in Criminal Justice**
    - **SWK 475 Alternative Health Systems**
    - **SWK 493 Special Topics in Social Welfare**
    - **SWK 496 Independent Study in Social Work**
    - **SWK 497 Independent Study in Criminal Justice**
    - **SWK 499 India Experience**

Certificate Program: Criminal Justice

The School of Social Work offers a certificate program in Criminal Justice with a concentration in either Corrections or Law Enforcement. The concentration in Corrections helps to prepare a student for work in a career such as probation or parole officer, jail or prison social worker, rehabilitation counselor, or court mediator. The concentration in Law Enforcement helps to prepare a student for work in a career such as police officer, detective, bailiff, deputy, park ranger, federal investigator, or customs agent.

Students enter the program from different backgrounds and with a variety of career objectives in the area of criminal justice. Many are interested in attending law school, some in seeking law-related professions, and others in pursuing an understanding of the relationships among law, society, and the justice system. In addition to traditional students who are seeking to complement their major program of study, those pursuing a certificate in Criminal Justice include police officers, correctional officers, ex-offenders, chemical dependency workers, juvenile justice advisers, community advocates, and social workers. The two concentrations are designed to meet the various objectives sought by such a diverse student population.

Corrections Concentration

The concentration in Corrections prepares students for practice in community-based and institutional corrections programs. The Corrections concentration has core courses that focus on incarceration, community-based corrections, commitment alternatives, equal protection issues, and treatment of offenders.

Requirements for a certificate in Criminal Justice with a concentration in Corrections

Students seeking a concentration in Corrections must complete a minimum of 16 semester credit hours which must include:

1. Criminal Justice required core courses:
    - **PSC 310 Constitutional Law**
    - **SWK 240 Administration of Justice***
      *This course should be taken before the Corrections or Law Enforcement electives.
    - **SWK 470 Problems and Issues in Criminal Justice**
2. One Criminal Justice elective course selected from the listing below:
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 340 Legal Aspects of Human Services**
    - **SWK 341 Corrections: Institutional and Community Based**
    - **SWK 342 Prisoner's Rights**
      AND
      SWK: Any course from the Law Enforcement program excluding **SWK 259**

Law Enforcement Concentration

The concentration in Law Enforcement prepares students for a variety of careers in the criminal justice field and is especially appropriate for students transferring from programs in law enforcement at community colleges, and police officers who wish to further their education.

Requirements for a certificate in Criminal Justice with a concentration in Law Enforcement

Students seeking a concentration in Law Enforcement must complete a minimum of 16 semester credit hours which must include:

1. Criminal Justice required core courses:
    - **PSC 310 Constitutional Law**
    - **SWK 240 Administration of Justice***
      *This course should be taken before the Corrections or Law Enforcement electives.
    - **SWK 470 Problems and Issues in Criminal Justice**
2. One Criminal Justice elective course selected from the listing below:
    - **SWK 259 The Child, the Family, and the Law**
    - **SWK 371 Constitutional Criminal Procedure**
    - **SWK 374 Law Enforcement in Society**
    - **SWK 375 Criminal Law**
    - **PSC 301 Urban Politics and Policy**
    - **SOC 340 Criminology**

For additional information, contact the **School of Social Work** at (216) 687-4560.

College of Science

In this section:

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- **Introduction**
- **Academic Philosophy**
- **Academic Procedures**
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Introduction

College Web site: **www.csuohio.edu/cos**

Studies in the College of Science will prepare individuals for a lifetime of challenges. The college encompasses a wide spectrum of fields in the sciences, mathematics, and the health professions. By completing course work in a major field of interest, as well as in a variety of other subject areas, students acquire the analytical, communication, and problem-solving skills vital to critical thinking. Furthermore, students are exposed to diverse points of view and academic disciplines. These can help form values and outlooks conducive to a meaningful life, a rewarding career, and learning and intellectual growth in the future.

Academic Philosophy

In the College of Science, degree programs are designed to thoroughly prepare students for careers in a variety of scientific and health related disciplines. Each degree has its own set of required course work in addition to the general education requirements. Freshmen and sophomores are especially encouraged to seek information from advisers in the various departments in order to assure that degree requirements can be met in a timely manner.

Classroom instruction, laboratory experience, field placements, clinical supervision, and major/career advising within the College of Science are assumed by the approximately 100 full-time faculty members who comprise the college. Students are assured a high-quality educational experience while working with a distinguished faculty that is interested in, and committed to, helping students achieve their educational and career goals.

College of Science

Academic Procedures

- **Advising**
- **Declaring a Major**
- **Evening Majors**

Advising

General Advising
– All students are strongly encouraged to consult with an adviser early in their academic career. General advising is available at the **Advising Center**. The advising staff will provide a wide range of services including information on college and university graduation requirements, information on academic regulations, evaluation of transfer credit, assistance in planning a course schedule and help in preparing student petitions. Additional useful advising information may be found at the **Advising Center Web site**.

Major-Field Advising
- Major programs differ in the number and nature of credit hours required. Students should consider their own interests, aptitudes, and professional aspirations in selecting a major. Also, students should pay close attention to university, college, and major-field requirements and plan a schedule to ensure that they do not unnecessarily extend the period of time it takes to complete a degree. Students are encouraged to consult with major-field advisers within academic departments to discuss the course requirements within the major. A list of advising contacts for each department may be found on the **College of Science Web site**.

Declaring a Major

All students should declare a major as soon as possible after admission to the university and must declare a major by the end of their second year. By selecting a major, students are put into contact with the faculty members who will become their major-field advisers and mentors. By declaring a major early, students will also have more opportunities to work with faculty members and to participate in either the research or creative activities of their academic department.

To declare a major, contact the academic department in question and inquire about the process for declaring a major. The **College of Science Web site** contains a list of advising contacts for each department.

Evening Majors

The College of Science offers all their programs in the daytime for students to obtain their degrees. Several departments also offer courses for evening students to complete a major, including: Chemistry, Physics, and Psychology. Additionally, most other departments also offer evening courses, although these departments do not offer all the courses required for a major. Requirements for these majors, which are the same as those of the day majors, can be found under the heading of each individual department. A student should consult with the major-field adviser to determine the pattern and frequency of offerings of evening courses. In addition, regular meetings with the adviser should be held to discuss course selections, prepare a timetable for completing degree requirements, and receive advising on educational and career goals.

College of Science

Academic Policies

- **Earning a Second Degree**
- **Earning a Second Major**
- **Special Course Prerequisites**
- **Student Responsibilities**

Earning a Second Degree

A student who wants to earn a second baccalaureate degree must meet all requirements of the university, college, and department for the second degree and must earn a 2.00 GPA or better for those hours taken to apply to the second degree. A student must be admitted into both colleges and must meet all of the requirements and follow all of the regulations of each college. The student may receive both degrees by applying and paying the graduation fee for each.

To earn a second baccalaureate degree, a student whose first baccalaureate degree was earned at another institution must complete all degree requirements of Cleveland State University, the College of Science, and the major-field department. Also, the student must fulfill the minimum credit-hour requirement and distribution for the university's Residency Requirement. (**See chapter** on University Regulations.)

A student may not earn the same baccalaureate degree twice; e.g., two B.A. degrees with different major fields. (**See Earning a Second Major**.) Also a student majoring in Geological Sciences, Mathematics, or Physics cannot be awarded both the B.A. and B.S. degrees in these fields.

Earning a Second Major

Students may elect to complete the requirements for two major fields, provided both majors lead to a Bachelor of Arts or a Bachelor of Science degree in the College of Science and/or the College of Liberal Arts and Social Sciences. However, students cannot earn a second major outside of these two colleges.

In order to have both majors recorded on the transcript, both majors must be listed on the student's Graduation Application. Only one baccalaureate degree will be conferred.

Students who wish to obtain a Bachelor of Arts degree as well as a Bachelor of Science degree need to earn a second degree. (**See Earning a Second Degree**.)

Special Course Prerequisites

Courses at the 300- and 400-level in the College of Science may not be taken by freshmen except with the written permission of the course instructor.

Undergraduate students may be granted permission to take one or more graduate courses if all of the following conditions are met:

1. The student must be within 30 semester credit hours of graduation
2. The student must maintain an overall grade-point average of 2.75 or better through the preceding semester
3. The student must have a 3.00 grade-point average in the major field
4. The student must submit, at the time of registration, a completed Permission for an Undergraduate Student to Take a Graduate Course form
5. Postgraduate students should discuss the requirements for taking a graduate course with the College of Graduate Studies.

Student Responsibilities

Each student is solely responsible for meeting all curricular requirements and for knowing and following all academic regulations and policies of the College of Science, the university, and the major-field department. Students are urged to review all appropriate sections of this catalog, in particular the chapters on **University Regulations** and **Academic Procedures** and **Academic Policies** for the College of Science.

Petitions for a waiver of a requirement or for an exception to a regulation (either for the college or university) can be obtained from the **Advising Office**.

Although students must assume responsibility for knowing and fulfilling graduation requirements and for knowing and following policies and regulations, advisers are available to assist them. Whenever in doubt, a student should consult with an academic adviser for assistance.

College of Science

General Requirements

- **Introduction**
- **Foreign Language or Foreign Culture**
- **Other**
    - **Total Minimum Number of Semester Hours**
    - **Upper-Division**
    - **Introduction to University Life**

Introduction

The faculty of the College of Science awards its degrees to students who meet the following general requirements:

Successful completion of a minimum of 128 semester credit hours, of which 42 semester credit hours must be earned in 300- and/or 400-level courses. Credit toward the degree must be earned in: (1) introductory and advanced college courses in the liberal arts and sciences, (2) those practical and technical courses taught by the departments of this university, and (3) those practical and technical courses acceptable to the departments and curricula of the College of Science. A maximum of 11 semester credit hours of practical and technical courses not meeting conditions 2 and 3 above may be applied toward the total number of semester credit hours required for graduation.

Fulfillment of all of the GenEd requirements of the university and a minimum cumulative grade-point average of 2.00 as set forth in the section on University Regulations. Students must also achieve a minimum cumulative grade-point average of 2.00 in a major program in the College of Science. (Note: A minimum grade-point average higher than 2.00 may be required by a department. Students must meet the requirements as specified by their major department.)

Foreign Language or Foreign Culture Requirement

The College of Science requires all students who graduated from high school in 1987 or later to have completed two years of a foreign language in high school. Students who did not complete the courses in high school must finish a first-year foreign language sequence, or take two semesters of American Sign Language and one approved foreign culture course. The deficiency must be corrected prior to the completion of 60 credits at Cleveland State.

Other Requirements

Total Minimum Number of Semester Credit Hours Required: All students must successfully complete a minimum of 128 academic semester credit hours. However, some degree programs may require more than the college minimum. Students must comply with the requirements of their major program.

Upper-Division Requirement:
All students must successfully complete a minimum of 42 semester credit hours at the 300- and/or 400-level.

Introduction to University Life:
This one-credit course must be successfully completed by all newly admitted freshmen. This course is not required for transfer students.

College of Science

Special Educational Opportunities

See also **Biotechnology Certificate Program**

- **Community College Articulation Agreement for B.S. in Health Science degree**
- **Ohio College of Podiatric Medicine Partnership for Doctor of Podiatric Medicine degree**
- **Pre-Pharmacy Program, Consortium University with Northeastern Ohio Universities College of Pharmacy for Doctor of Pharmacy degree**
- **Credit by Examination**
- **Distance Learning**
- **Independent Study/ Research**
- **Co-ops and Internships**
- **Off-Campus Course Offerings**
- **Study Abroad**
- **Secondary Teacher Licensure**

Community College Articulation Agreement for B.S. in Health Science Degree

The College of Science has an articulation agreement with Cuyahoga Community College for those students who have completed an associate degree in one of the more than 20 allied health programs. The articulation agreement will enable the associate-degree holder to complete the degree of Bachelor of Science in Health Sciences in two years of full-time study and will facilitate the transfer of credits. Interested Cuyahoga Community College students should contact their adviser or the **Cleveland State University Office of Admissions**, at 687-3754 or 687-3592.

Ohio College of Podiatric Medicine Partnership for Doctor of Podiatric Medicine Degree

3 + 4 Articulation Agreement with the Ohio College of Podiatric Medicine

This program consists of 3 years of pre-professional study at CSU and 4 years of study (for qualified students) at the Ohio College of Podiatric Medicine (OCPM). Students who successfully complete the seven-year program will receive a Doctor of Podiatric Medicine degree. Students may also apply for a B.S. in Biology or Health Sciences upon completion of required course work during their first year of study at OCPM. Additional details and contact information may be found at the **Department of Biological, Geological and Environmental Sciences** and the **Department of Health Sciences** Web sites.

Pre-Pharmacy Program, Consortium University with Northeastern Ohio Universities College of Pharmacy for Doctor of Pharmacy Degree

Cleveland State is a member of the Northeastern Ohio Universities College of Pharmacy (NEOUCOP) consortium. As a member institution, Cleveland State students enjoy preferential admissions to the Doctor of Pharmacy program, with NEOUCOP annually reserving a set number of seats for qualified Cleveland State students. Students interested in this program take a recommended sequence of undergraduate pre-pharmacy courses that are designed to fulfill the prerequisites set by NEOUCOP. This pre-pharmacy curriculum will also meet the prerequisite requirements of most other Doctor of Pharmacy programs. Cleveland State students apply to the NEOUCOP Doctor of Pharmacy program in the academic year in which they have completed pre-pharmacy prerequisites (by spring semester prior to starting the Doctor of Pharmacy in the fall). Admission to the NEOUCOP program is competitive and is not guaranteed. However, Cleveland State does have an annual allotment of 15 seats which will be competitively filled by Cleveland State students only, as long as the student meets NEOUCOP admission qualifications. The pre-pharmacy program is administered by the Department of Chemistry. Additional details and contact information may be found on the **College of Science** Web site.

Credit by Examination

Departments within the College of Science may accept credit by examination for specific courses. The subject material to be covered, the method of examination, the minimal acceptable score/grade for passing, and the number of semester credit hours to be granted will be determined by the academic departments. **Contact the departmental adviser** for further information.

Distance Learning

During the academic year, the College of Science offers some of its regular courses via distance learning. The electronic offering of courses will enable some students to take courses and complete assignments while remaining at home. Some on-campus contact with the course instructor is usually a part of the course. These courses are listed on **CampusNet** and are footnoted as distance-learning courses. All courses delivered in such a manner are part of the college's regular course offerings and will fulfill the appropriate university, college, or major-field requirement.

Independent Study/Research

Most departments of the College of Science offer credit for independent study conducted under the supervision of a member of the college's faculty. A student should contact the departmental adviser or a specific faculty member to inquire about independent study/research.

Independent study/research is arranged with a specific professor who will determine the quantity and quality of work expected and semester credit hours to be granted. In general, an independent study is intended for scholarly work not included in a department's formal course offerings, and should be offered only when a formal course is not available.

Although neither the university nor the College of Science has a limit on the number of independent study courses that may be applied toward graduation, individual academic departments can limit the number that may be applied toward the major and/or minor.

Co-ops and Internships

Co-op and internship opportunities are available for many of the College of Science programs, placing students in actual work settings that may be related to a student's educational and career interests. Knowledge and skills learned in the classroom setting are often applied in these co-op and internship experiences. Likewise, the experience gained in hands-on activities may be brought back into the classroom and complement the academic component of course work. Contact the **Career Services Center** at 687-2233 for information on co-ops. Contact both the Career Services Center and the chairperson of the appropriate academic department for information on internships.

Off-Campus Course Offerings

Community Colleges: Psychology courses leading to a B.A. degree in Psychology are offered at Lorain County Community College.

***PSEOP* (Post Secondary Education Opportunities Program)** permits qualified high-school students to take college-level courses at Cleveland State. **See PSEOP Web site.**

Study Abroad

Study-abroad opportunities are available through various departments and programs within the College of Science and are coordinated by the **Center for International Services and Programs**
(687-3910). The coordinator of the center can assist with financial-aid arrangements, recommend appropriate programs (generally those affiliated with American universities from which credit is transferable) and assist with arrangements. Students who wish to earn credits abroad must consult with and work through the coordinator. Approved courses taken as part of the study-abroad experience may, where appropriate and approved by the academic unit, apply toward university, college, and/or major-field requirements. The option of taking approved courses for graded credits and having these grades count in a student's grade-point average is also available.

A guide to study-abroad opportunities is available from the coordinator of the **Center for International Services and Programs**.

Secondary Teacher Licensure

Students seeking secondary teacher licensure in a science/math field are enrolled in the College of Science, from where they earn their degree. Students complete coursework in both the College of Science and the College of Education and Human Services. Secondary teacher licensure can be obtained in the fields of biology, chemistry, earth science (geology), physics, and mathematics. Students have one adviser for science/math courses in the department of their field of concentration and one adviser for education courses in the **College of Education and Human Services**.

College of Science

Major Programs Leading to a Bachelor's Degree

- **Bachelor of Science**, including daytime major programs offered in the following fields:
  - **Biology**
    B.S. Tracks: General, Pre-Professional Studies, Honors, and Secondary Teacher Licensure
    Certificate: Biotechnology
  - **Biology - Medical Technology**
  - **Biology (B.S.)./Podiatric Medicine (Doctorate)** *with Ohio College of Podiatric Medicine*
  - **Chemistry**
    B.S. Tracks: American Chemical Society (ACS) Certified (evening degree also available) , Pre-Professional Studies, Honors, and Secondary Teacher Licensure
    Certificate: Biotechnology
  - **Environmental Science**
    B.S. Tracks: Environmental Biology, Environmental Chemistry, Environmental Geology, Environmental Planning, and Environmental Technology
  - **Geological Sciences**
    B.S. Tracks: General and Secondary Teacher Licensure
  - **Health Sciences**
    B.S. Tracks: General Interest, Associate Degree/Bachelor of Science Completion, Pre-Therapy, and Honors
  - **Health Sciences (B.S.)/Podiatric Medicine (Doctorate)** *with Ohio College of Podiatric Medicine*
  - **Mathematics**
    B.S. Tracks: General, Actuarial, Applied Mathematics, Pure Mathematics, Statistics, Mathematics/Computer Science (double major), and Secondary Teacher Licensure
  - **Physics** (evening degree also available)
    B.S. Tracks: General, Honors and Secondary Teacher Licensure
- **Bachelor of Arts**, including major programs offered during the day in the following fields:
  - **Geological Sciences**
    B.A. Track: General
  - **Mathematics**
    B.A. Tracks: General, Actuarial, Applied Mathematics, Pure Mathematics, and Statistics
  - **Physics** (*evening degree also available)*
    B.A. Track: General
  - **Psychology** (*evening degree also available)*
    B.A. Tracks: General and Honors
  - **Speech and Hearing**
    Courses required for Licensure: **School Audiology/School Speech-Language Pathology** (requires M.A. in Speech and Hearing)

Biology

On this page:

- **Back to Science College Degree Listing**
- **At-a-Glance**
- **Major-Field Requirements - B.S. in Biology**
    - **Pre-Professional Studies**
    - **Honors Program**
- **B.S. in Biology - Medical Technology Program**
- **B.S. in Biology/Doctorate of Podiatric Medicine**
- **Secondary Teacher Licensure**
- **Certificate Program: Biotechnology**
- **Minor**
- **BIO Courses**
- **Go to Biology, Geology, and Environmental Science Web Site**

Biology (B.S.)

At-a-Glance

Admission to the major: Grade of C or better in BIO 202 and good academic standing in the College of Science

Minimum hours required for major: 72

Minimum hours required for minor: 16

Special programs:
Honors program, Pre-Professional program (medicine, dentistry, veterinary science), B.S. Biology - Medical Technology program, B.S. Biology - Doctorate of Podiatric Medicine (with the Ohio College of Podiatric Medicine), Secondary Teacher Licensure program, and the Biotechnology Certificate program

Additional information: The Doretta Thielker Award is presented annually to outstanding graduating biology major(s)

Student Organizations:
American Medical School Association / CSU Chapter, The Biology, Geology, Environmental Science Student Association

Advising for Biology majors:
Biology and Medical Technology majors must discuss their program of study with the undergraduate adviser for Biology prior to registration each semester. Contact the Biology office at (216) 687-2440 or **bges@csuohio.edu** to schedule an advising appointment.

Transfer students intending to major in Biology:
Transfer students intending to major in Biology must meet, prior to registering for courses, with the undergraduate adviser for biology for evaluation of their transferred science courses. Contact the Biology office at (216) 687-2440 or **bges@csuohio.edu** to schedule an advising appointment.

Required Grade-Point Average:
To qualify for graduation, all Biology majors must have a cumulative GPA of not less than 2.00 across all biology courses used to fulfill the major-field requirements. This is in addition to the university requirement of a cumulative GPA of not less than 2.00. Check the **University Regulations section** of this catalog to determine how a GPA is calculated.

Suggested Freshman Program:
To minimize the time needed to complete the major-field requirements, academically proficient students are advised to complete the Introductory Biology (**BIO 200/201** and **202/203**) and the General Chemistry (**CHM 261/266** and **262/267**) sequences in their first year.

Description of program:
The Department of Biological, Geological and Environmental Sciences (BGES) offers a comprehensive program providing the education and training necessary for careers in modern biological science, including the background for admission to graduate schools and to professional schools (medicine, dentistry, veterinary science). The Biology major provides a solid foundation in fundamental areas of biology while permitting sufficient choice in course selection that majors may explore and develop areas of interest within the field. Degrees offered include a **B.S. in Biology** (**general** , **pre-professional studies**, and **honors** tracks), a **B.S. Biology – Medical Technology** (with an affiliated school of medical technology), and a **B.S. Biology/Doctorate of Podiatric Medicine** (3+4 program with the Ohio College of Podiatric Medicine). A **Secondary Teacher Licensure** program, a **Biotechnology certificate**, and a **Biology minor** are also available.

Major-Field Requirements

Bachelor of Science (General Requirements)

Biology Core Courses (25 credit hours)

- **BIO 200/201 Introductory Biology I and Laboratory**
- **BIO 202/203 Introductory Biology II and Laboratory**
- Two of the following three courses*****:
    - **BIO 300/301 Plant Biology and Laboratory**

    - **BIO 302/303 Animal Biology and Laboratory**
    - **BIO 304/305 Population Biology and Evolution, and Laboratory**
- Two of the following three courses*****:
    - **BIO 306 Biochemistry and Molecular Biology**
    - **BIO 308/309 Cell Biology and Laboratory**
    - **BIO 310/311 Genetics and Recitation**
- **BIO 495** or **492 Seminar**
- **BIO 499 Exit Evaluation**

Biology Electives (at least 19 credit hours)

- *BIO courses numbered 300 to 311 and not used as biology core courses can be used as biology electives. ***Return to Biology Core***
- Both **BIO 390** and **BIO 391** may be used once each as a biology elective course.
- Select from all biology courses numbered 401 to 497, with three restrictions:
    1. Only one course numbered 402 to 497 that does not have a 300-level course as a prerequisite may be used as a biology elective;
    2. A maximum of 8 credits of the following courses may be used as biology electives: **BIO 496** and **BIO 497**.
    3. **BIO 495** and **492** do not count as electives the first time taken.
- **EVS 454**, **EVS 455**; HSC **381**, **475**, and **476** (students may not use both HSC 476 and BIO 426 as electives); **CHE 366**; **MTH 493**; **PHY 415**
- **EVS 490**, **493**, **494** may be used as biology electives with permission of the biology adviser.
- Check with the biology adviser (216-687-2440) for other courses that may be used as biology electives.

Chemistry Courses (16 credit hours)

- **CHM 261/266 General Chemistry I and Laboratory**
- **CHM 262/267 (or 278) General Chemistry II and Laboratory**
- **CHM 331/336 Organic Chemistry I and Laboratory**

Mathematics or Statistics Course (four credit hours)
One of the following courses:

- **MTH 181 Calculus I**
- **MTH 147 Statistical Concepts**
- **ANT 305 Quantitative Anthropology**
- **PSY 311 Behavioral Science Statistics**
- **SOC 354 Quantitative Sociological Research**

Physics Courses (8 credit hours)

- **PHY 231 College Physics I** – Biomedical Applications
- **PHY 232 College Physics II** – Biomedical Applications

Specific Tracks in the Bachelor of Science Program:

Pre-Professional Studies

The curriculum for the Biology major provides students with the knowledge to take the aptitude tests required for admission by most professional schools. A suggested program of study for premedical students might consist of the following courses:
All the specified courses (biology, chemistry, mathematics, and physics) for the B.S. in Biology, including **BIO 306** and **BIO 308/309**.
Suggested Biology Electives:

- **BIO 310/311 Genetics and Recitation**
- **BIO 412/413 Elements of Immunology and Laboratory**
- **BIO 416/417 Microbiology and Laboratory**
- **BIO 424/425 Principles of Animal Physiology and Laboratory**

Additional course required by medical schools:

- **CHM 332/337 (or 338) Organic Chemistry II and Laboratory**

Suggested Additional Courses:

- **Economics** - one course
- **Psychology** - one course

The biology pre-professional adviser coordinates a seminar program for all students at which representatives from professional schools (medical, dental, veterinary, etc.) discuss their program's admission requirements and procedures. Contact the department's

pre-professional adviser at (216) 687-2440 or **bges@csuohio.edu** for the seminar schedule and for pre-professional advising.

A **Post-baccalaureate Program**
is available to individuals with a bachelor's degree who lack the minimal science requirements for professional schools. Those interested in the Post-baccalaureate Program should contact the department's pre-professional adviser (216) 687-2440.

Honors Program

Biology majors with junior or senior standing, who have grade-point averages of at least 3.00 overall and at least 3.20 in courses required for the Biology major, are encouraged to apply for admission to the Honors Program. The Honors Program requires a minimum of 8 credit hours of honors research and seminar, and a successful oral defense of the written thesis. Honors Program course credits count as Biology Elective credits.

Honors students will undertake three or four credits of research (**BIO 490**) in a supervising faculty member's laboratory on a project approved by the faculty member and by the Honors Program Committee. A written report on the research project must be defended before a three-person faculty review committee (**BIO 491**). Honors Seminar (**BIO 492**) must be taken twice, and an oral report on the project must be given as a research seminar when the student takes **BIO 492** for the second time. Honors students do not take **BIO 495**. To remain in the program the student must sustain the grade-point averages required for admission to the program, as well as the approval of the faculty member supervising the student's honors research.

Upon successful completion of the honors program, the student will receive a certificate from the department, and a recommendation to the university for graduation with honors in Biology. For further information, contact the Biology office at (216) 687-2440 or **bges@csuohio.edu**.

B.S. Biology - Medical Technology

The Department of Biological, Geological and Environmental Sciences offers a program in medical technology that leads to a B.S. degree with a major in Biology. Students interested in the Medical Technology Program should contact the undergraduate adviser for Biology at (216) 687-2440 or **bges@csuohio.edu**. Students enrolling in the Medical Technology Program have two options available to them.

Option I (3 + 1)

Option I consists of three years of study at Cleveland State University followed by one year of clinical laboratory training in an affiliated school of medical technology from where 32 semester credits are earned toward the B.S. degree. The letter grades earned during the internship appear on the student's records, but are not included in the computation of the grade-point average. Students enrolling in Option I must complete the following courses:

Biology Courses (38 credit hours)

- **BIO 200/201 Introductory Biology I and Laboratory**
- **BIO 266/267 Human Anatomy and Physiology I**
- **BIO 268/269 Human Anatomy and Physiology II**
- **BIO 306 Biochemistry and Molecular Biology**
- **BIO 308/309 Cell Biology and Laboratory**
- **BIO 310/311 Genetics and Recitation**
- **BIO 400 Medical Technology Orientation**
- **BIO 412/413 Elements of Immunology and Laboratory**
- **BIO 414/415 Parasitology and Laboratory**
- **BIO 416/417 Microbiology and Laboratory**
- **BIO 499 Exit Evaluation**

Mathematics and Physical Science Courses (20 credit hours)

- **CHM 261/266 General Chemistry I and Laboratory**
- **CHM 262/267 (or 278) General Chemistry II and Laboratory**
- **CHM 331/336 Organic Chemistry I and Laboratory**
- one of the following statistics courses:
    - **MTH 147 Statistical Concepts**
    - **ANT 305 Quantitative Anthropology**
    - **PSY 311 Behavioral Science Statistics**
    - **SOC 354 Quantitative Sociological Research**

Option II (4 + 1).

Option II consists of the successful completion of the B.S. degree with a major in Medical Technology prior to enrolling in an approved school of medical technology. This option is recommended for students who desire flexibility in training program choice, and increased options for career choice and career development. Students enrolling in Option II must complete the following courses:

- All Option I courses
- **BIO 202/203 Introductory Biology II and Laboratory**
- **CHM 310/315 Survey of Analytical Chemistry**
- **PHY 231 College Physics I** – Biomedical Applications
- **BIO 495 Seminar**

Regardless of the route and option selected, students subsequently must be accepted into a school of medical technology approved by the Council on Medical Education of the American Medical Association in collaboration with the National Accrediting Agency for Clinical Laboratory Sciences as part of the requirement for taking the certifying examination in medical technology. In the Cleveland area, there is one approved and active hospital school of medical technology affiliated with Cleveland State University. However, students completing the 4 + 1 option may attend any approved school of medical technology in the United States. Following satisfactory completion of their clinical training program, students are eligible to take the national certifying examination of the Registry of Medical Technologists (American Society of Clinical Pathologists) or of the National Certification Agency for Medical Laboratory Personnel.

B.S. Biology/ Doctorate of Podiatric Medicine (3+4 program with the Ohio College of Podiatric Medicine)

The Department of Biological, Geological, and Environmental Sciences (BGES) offers a joint 3 + 4 program with the **Ohio College of Podiatric Medicine**
(OCPM). The program providies the education and training that will allow a Biology major to take three years of classes at CSU in preparation for admission to OCPM for the four-year Doctor of Podiatric Medicine (DPM) degree program. Particular courses taken at OCPM in the first year will transfer to CSU and apply to the completion of the Bachelor of Science degree in Biology from CSU. Thus, a student will receive a four-year B.S. degree from CSU, and three years later (if successful), a Doctor of Podiatric Medicine from OCPM. All other normal regulations for both the **Biology major** and the Doctor of Podiatric Medicine remain unchanged. Biology majors should discuss this degree option with the undergraduate adviser for Biology.

Admission to OCPM:
If a student enters CSU with a high school GPA of at least 3.75, and either an ACT score of at least 29 or a SAT score of at least 1270, and if the student maintains a cumulative GPA of at least 3.2, then the student automatically will continue into the OCPM curriculum after three years at CSU and completion of the following 92-96 semester credit hours of CSU coursework:

- 8 credit hours of General Biology & Lab
- 8 credit hours of General Chemistry & Lab
- 8 credit hours of Organic Chemistry & Lab
- 8 credit hours of Physics & Lab
- 6 credit hours of English
- 52-56 credit hours of General Core / Elective courses.

If a student enters CSU with a high school GPA of less than 3.75, or has standardized test scores below the limits given above, or if the student does not maintain a cumulative GPA of at least 3.2, then the student will enter the regular applicant pool for admission to OCPM. Such students must complete either the Medical College Admission Test (MCAT) or the Graduate Record Exam (GRE) and must have completed or be nearing completion of the 92-96 credit hours of CSU coursework as listed above.

Suggested Three-Year Program at CSU

Fall Semester, Year 1			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
CHM 261 General Chemistry I	4	BIO major	4 of 8 General Chemistry
CHM 266 General Chemistry Lab I	1	BIO major	
BIO 200 Introductory Biology I	3	BIO major	3 of 8 Biology
BIO 201 Introductory Biology Lab I	1	BIO major	4 of 8 Biology
ENG 101 English I	4	English Composition	4 of 6 English
ASC 101 Freshman Orientation	1	Freshman Orientation	N/A
Semester Total	**14**		
Spring Semester, Year 1			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
CHM 262 General Chemistry II	4	BIO major	8 of 8 General Chemistry
CHM 267 General Chemistry Lab II	1	BIO major	N/A
BIO 202 Introductory Biology II	3	BIO major	8 of 8 Biology
BIO 203 Introductory Biology Lab II	1	BIO major	8 of 8 Biology
ENG 102 English II	3	English Composition	7 of 6 English
General Education Elective	3 - 4	Western Culture / Arts & Humanities / Writing	N/A

Semester Total	**15 - 16**		
Fall Semester, Year 2			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
CHM 331 Organic Chemistry I	4	BIO major	4 of 8 Organic Chemistry
CHM 336 Organic Chemistry Lab I	2	BIO major	N/A
BIO 302/303 Animal Biology & Lab	4	BIO major [1 of 4 required 300-level courses]	N/A
MTH 147 Statistical Concepts OR **MTH 181 Calculus I**	4	BIO major and Math & Logic	N/A
General Education Elective	3 - 4	Human Diversity (suggested: **HSC 305 Culture and Health**)	N/A
Semester Total	**17 - 18**		
Spring Semester, Year 2			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
CHM 332 Organic Chemistry II	4	N/A	8 of 8 Organic Chemistry
CHM 337 Organic Chemistry Lab. II or an elective	2	N/A	N/A
MTH 182 Calculus II OR **MTH 347 Applied Statistics**	4	Math & Logic	N/A
BIO 310/311 Genetics & Recitation	4	BIO major [2 of 4 required 300-level courses]	
General Education Elective	3 - 4	African American Experience /Social Science	N/A
Semester Total	**17 - 18**		
Fall Semester, Year 3			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
BIO 495 Seminar	1	BIO major & Writing Across the Curriculum	N/A
BIO 308/309 Cell Biology & Lab	4	BIO major [3 of 4 required 300-level courses]	N/A
PHY 221 College Physics I	5	BIO major	5 of 8 Physics
General Education Elective	3 - 4	Social Sciences / Writing Across the Curriculum	
General Education Elective	3 - 4	Social Sciences / Foreign Culture	
Semester Total	**16 - 18**		
Spring Semester, Year 3			
Course	**Credits**	**CSU requirement**	**OCPM prerequisite credits**
PHY 222 College Physics II	5	BIO major	10 of 8 Physics
General Education Elective	3	Arts & Humanities (suggested: **PHL 240 Health Care Ethics**)	N/A
General Education Elective	3- 4	Nonwestern Culture / Arts & Humanities/ Foreign Culture	N/A
Open Elective	4		
Semester Total	**15 - 16**		

Mininimum total credits from CSU (assuming no foreign language deficiency) = 96
Total transfer credits from OCPM = 32
Total credits required for B.S. in Biology = 128

Matriculation Requirements:
Any student admitted to OCPM under this program may apply for a B.S. degree in Biology from CSU upon successful completion of the required first-year OCPM coursework listed below.

Courses transferred from OCPM to CSU:		
Course number	**Course title**	**Credits**
BSC 111	Gross Anatomy	8
BSC 112	Histology	6
BSC 113	Biochemistry	6
BSC 125	Neurobiology	3
BSC 126	Physiology	6
BSC 127	Basic Microbiology & Immunology	3

Second-year OCPM courses that can be transferred to CSU, if necessary as electives:		
Course number	**Course title**	**Credits**
BSC 216	Microbiology and Infectious Diseases	5
BSC 218	Pathology I	4
BSC 219	Pharmacology and Therapeutics I	4
BSC 228	Pathology II	4
BSC 229	Pharmacology and Therapeutics II	4

Secondary Teacher Licensure

Students have the option of a single field licensure in life science or an integrated science licensure with a concentration in life science. Both licensure programs require coursework from the College of Science and the College of Education and Human Services. Contact the Biology adviser for required science courses. Contact the Education Student Service Center for the education courses required for licensure or for information on the requirements for Post-Baccalaureate Secondary Teacher Licensure (216-687-4625 or Rhodes Tower 1401).

Biology Courses (40 credit hours)

- **BIO 200/201 Introductory Biology I and Laboratory**
- **BIO 202/203 Introductory Biology II and Laboratory**
- **BIO 300/301 Plant Biology and Laboratory**
- **BIO 302/303 Animal Biology and Laboratory**
- **BIO 304/305 Population Biology and Evolution, and Laboratory**
- **BIO 306 Biochemistry and Molecular Biology**
- **BIO 308/309 Cell Biology and Laboratory**
- **BIO 310/311 Genetics and Recitation**
- **BIO 416/417 Microbiology and Laboratory**
- **BIO 495 Seminar**
- Two credit hours of biology electives
- **BIO 499 Exit Evaluation**

Chemistry Courses (16 credit hours)

- **CHM 261/266 General Chemistry I and Laboratory**
- **CHM 262/267 (or 278) General Chemistry II and Laboratory**
- **CHM 331/336 Organic Chemistry I and Laboratory**

Mathematics or Statistics Course (4 credit hours)

- **MTH 151-156 Mathematical Concepts** (8 credit hours).
  OR
- one of the following courses

- **MTH 181 Calculus I**
- **MTH 147 Statistical Concepts**
- **ANT 305 Quantitative Anthropology**
- **PSY 311 Behavioral Science Statistics**
- **SOC 354 Quantitative Sociological Research**

Physics Courses (8 credit hours)

- **PHY 231 College Physics I** - Biomedical Applications
- **PHY 232 College Physics II** - Biomedical Applications

Geology Course (4 credit hours)

- **GEO 100/101 Introductory Geology and Laboratory**

Certificate Program: Biotechnology

This program prepares students majoring in biology or chemistry, or with a baccalaureate degree that includes many biology and chemistry courses, for entry into positions in the biotechnology industry responsible for development of new products and quality control. The certificate program is interdisciplinary and enhances majors in biology or chemistry by exposing students to areas of engineering and bulk processing that are important in the biotechnology industry. The certificate program is 16 credit hours of classes taken in the colleges of Science and Engineering.

Requirements for a certificate in Biotechnology - Laboratory Track

1. Prerequisites:
    - Either currently majoring in biology or chemistry, and completion of two semesters of Introductory Biology, and one semester each of Biochemistry, Cell Biology and Laboratory, Microbiology and Laboratory, and Calculus; or a baccalaureate degree that includes the following courses: two semesters each of Introductory Biology and General Chemistry, and one semester each of Biochemistry, Cell Biology and Laboratory, Microbiology and Laboratory, Organic Chemistry, and Calculus.
2. Required courses:
    - **MTH 147 (4-0-4) Statistical Concepts with Applications**
    - **ESC 120 (1-0-1) Introduction to Engineering Design**
    - **BIO 435 (1-6-4) Techniques in Molecular Biology**
    - **CHE 366 (4-0-4) Bioprocess Engineering Principles**
    - **IME 465 (3-0-3) Manufacturing Systems Engineering**

See the Certificate Programs section
located earlier in the College of Science chapter of the catalog for additional information. Students in the Biotechnology Certificate Program are eligible to participate in the Cooperative Education Program through the Career Services Center even if they are not seeking a degree at Cleveland State University.

Biology Minor

A minor program of study in Biology consists of 16 credit hours. **BIO 200**, **201**, **202**, and **203** are required courses. The remaining eight credits must be 200-, 300- or 400-level biology courses. BIO 400 does not qualify for the minor program.

Chemistry

On this page:

- **Back to Science College Degree Listing**
- **At-a-Glance**
- **Major Requirements**
- **Bachelor of Science in Chemistry - American Chemical Society Certified**
- **Bachelor of Science in Chemistry - Pre-Professional Studies**
- **Bachelor of Science in Chemistry - Pre-Professional Studies with Concentration in Pharmaceutical Sciences**
- **Honors Program**
- **Secondary Teacher Licensure**
- **Chemistry Minor**
- **CHM Courses**
- **Go to Chemistry Web Site**

Chemistry (B.S.)
At-a-Glance

Admission to major: No additional requirements beyond the prerequisites for the required courses

Minimum hours required for major with ACS Certification: 68

Minimum hours required for pre-professional major: 42

Minimum hours required for minor: 24

Special tracks/programs:
American Chemical Society Certification, Pre-Professional Studies (premedical/predental/preveterinarian or concentration in pharmaceutical sciences), Honors, Secondary Teacher Licensure programs

Advising:
The Associate Chair for undergraduate programs serves as the adviser for all chemistry majors. A handbook,"The Compleat Chemistry Major," is available from the Chemistry Department office. Phone (216) 687-2451.

Student organization: The CSU American Chemical Society Student Affiliates Chapter

Additional information: Honors General Chemistry (**CHM 272** and **277**) is available to students selected by the director of General Chemistry. An honors track for Chemistry majors admitted to the Honors Program is also available. A Chemistry major may be completed in the evening. Senior Research (**CHM 489**) provides an opportunity in the senior year for independent research with department faculty. The department also has a vigorous seminar program.

Prerequisite Statement:
It is important that the student pay particular attention to the prerequisites and corequisites in this catalog. These courses serve as essential background, and without them the student will experience significant difficulty. If a student has not satisfied the prerequisites and/or corequisites, the instructor may have the student de-registered.

Cooperative Education Program:
In earning the Bachelor of Science degree with ACS certification, the Chemistry major may elect the Cooperative Education Program (**see Special Programs Chapter**) in order to supplement chemistry course work with employment in the chemical industry.

Major-Field Requirements

Bachelor of Science in Chemistry - American Chemical Society (ACS) Certified Track

The program leading to the Bachelor of Science degree provides a strong foundation in the fundamentals of chemistry, physics, and mathematics, and meets the requirements for professional certification by the American Chemical Society. This program provides the broad fundamental knowledge most suited to students planning to become professional chemists or planning to pursue graduate training.

First Fall Semester	**Credits**
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
MTH 181 Calculus I	4
ENG 101 English I	4
ASC 101 Orientation	1
Total	14

First Spring Semester	**Credits**
CHM 262 (or 272) General Chemistry II	4
CHM 267 (or 277 or 278) General Chemistry Lab II	1
MTH 182 Calculus II	4

ENG 102 English II	3
Elective	3
Total	15

Second Fall Semester	**Credits**
CHM 331 Organic Chemistry I	4
CHM 336 Organic Chemistry Lab I	2
MTH 281 Multivariable Calculus	4
PHY 241 or **243 University Physics I**	5
Total	15

Second Spring Semester	**Credits**
CHM 332 Organic Chemistry II	4
CHM 337 (or 338) Organic Chemistry Lab II	2
CHM 401 Chemical Information	2
PHY 242 or **244 University Physics II**	5
Elective	3
Total	16

Third Fall Semester	**Credits**
CHM 311 Analytical Chemistry	4
CHM 321 Physical Chemistry I	4
CHM 316 Analytical Chemistry Lab	2
CHM 402 Biochemistry	3
Elective	3
Total	16

Third Spring Semester	**Credits**
CHM 322 Physical Chemistry II	4
CHM 411 Instrumental Analysis	3
CHM 416 Instrumental Analysis Lab	4
CHM 431 Advanced Organic Chemistry	2
Total	13

Fourth Fall Semester	**Credits**
CHM 426 Physical Chemistry Lab I	3
CHM 441 Inorganic Chemistry	4
CHM 446 Inorganic Chemistry Lab	2
CHM 471 Faculty Colloquium	1
Elective	3
Elective	3
Total	16

Fourth Spring Semester	**Credits**
CHM 427 Physical Chemistry Lab II	3
CHM 489 Senior Research	3
CHM 472 Student Colloquium	1
Elective	3
Elective	3
Elective	3
Total	16

Electives are to meet General Education requirements for B.S. degree.

Bachelor of Science in Chemistry - Pre-Professional Studies Track

The B.S. program in chemistry for students who plan to continue graduate study in the medical sciences provides those courses required and strongly recommended by most medical schools and also affords an excellen t base for students considering careers in medicine, medical research, dentistry, or veterinary medicine. This program does not l ead to certification by the American Chemical Society.

Bachelor of Science in Chemistry for Premedical, Predental, and Preveterinary Students

First Fall Semester	Credits
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
ENG 101 English I	4
BIO 200 Introductory Biology I	3
BIO 201 Introduction to Biology Lab I	1
ASC 101 Orientation	1
Total	14

First Spring Semester	Credits
CHM 262 (or 272) General Chemistry II	4
CHM 267 (or 277 or 278) General Chemistry Lab II	1
ENG 102 English II	3
BIO 202 Introductory Biology II	3
BIO 203 Introduction to Biology Lab II	1
Elective	3
Total	15

Second Fall Semester	Credits
CHM 331 Organic Chemistry I	4
CHM 336 Organic Chemistry Lab I	2
PHY 221 College Physics I	5
MTH 181 Calculus I	4
Total	15

Second Spring Semester	Credits
CHM 332 Organic Chemistry II	4
CHM 337 (or 338) Organic Chemistry Lab II	2
PHY 222 College Physics II	5
MTH 182 Calculus II	4
Total	15

Third Fall Semester	Credits
CHM 320 Survey of Physical Chemistry	4
CHM 310 Survey of Analytical Chemistry	2
CHM 315 Survey of Analytical Chemistry Lab	2
CHM 402 Biochemistry	3
BIO 308 Cell Biology	3
BIO 309 Cell Biology Lab	1
Total	15

Third Spring Semester	Credits
BIO 302 Animal Biology	3
BIO 303 Animal Biology Lab I	1
BIO 310 Genetics	3

BIO 311 Genetics Recitation	1
Elective	3
Elective	3
Total	14

Fourth Fall Semester	**Credits**
BIO 416 Microbiology	3
BIO 417 Microbiology Lab	2
CHM 471 Faculty Colloquium	1
Chemistry Elective *(300- or 400-level chemistry course)*	4
Elective	3
Elective	3
Total	16

Fourth Spring Semester	**Credits**
Biology Elective *(300- or 400-level biology course)*	3
Chemistry Elective *(300- or 400-level chemistry course)*	4
Elective	3
Elective	3
Elective	3
Total	16

Electives are to meet General Education requirements for B.S. degree.

Bachelor of Science in Chemistry - Pre-Professional Studies Track - Concentration in Pharmaceutical Sciences

The concentration in Pharmaceutical Sciences provides pre-medical, pre-dental, or pre- veterinary students experience in the pharmaceutical part of their field prior to matriculation into a medical school. This program does not lead to certification by the American Chemical Society.

The B.S. Chemistry degree with a concentration in pharmaceutical sciences allows students to complete an undergraduate degree that would generally prepare them for medical school, graduate school in chemistry, or entry into a graduate pharmacy program following graduation. It differs from the **NEOUCOP**
program, which does not issue students an undergraduate degree, but rather provides the prerequisites to qualify for the Doctor of Pharmacy program offered through NEOUCOP, through which they may become a licensed pharmacist.

Bachelor of Science in Chemistry for Premedical, Predental, and Preveterinary Students with Concentration in Pharmaceutical Sciences

First Fall Semester	**Credits**
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
ENG 101 English I	4
BIO 200 Introductory Biology I	3
BIO 201 Introduction to Biology Lab I	1
ASC 101 Orientation	1
Total	14

First Spring Semester	**Credits**
CHM 262 (or 272) General Chemistry II	4
CHM 267 (or 277 or 278) General Chemistry Lab II	1
ENG 102 English II	3
BIO 202 Introductory Biology II	3
BIO 203 Introduction to Biology Lab II	1
Elective	3
Total	15

Second Fall Semester	Credits
CHM 331 Organic Chemistry I	4
CHM 336 Organic Chemistry Lab I	2
PHY 221 College Physics I	5
MTH 181 Calculus I	4
Total	15

Second Spring Semester	Credits
CHM 332 Organic Chemistry II	4
CHM 337 (or 338) Organic Chemistry Lab II	2
PHY 222 College Physics II	5
MTH 182 Calculus II	4
Total	15

Third Fall Semester	Credits
CHM 310 Survey of Analytical Chemistry	2
CHM 315 Survey of Analytical Chemistry Lab	2
CHM 341 Pharmacology I	3
CHM 351 Medicinal Chemistry	3
Elective	3
Elective	3
Total	16

Third Spring Semester	Credits
CHM 342 Pharmacology I	3
CHM 352 Medicinal Chemistry II	3
BIO 310 Genetics	3
BIO 311 Genetics Recitation	1
Chemistry/Biology Elective *(300- or 400-level chemistry or biology courses)*	4
Total	14

Fourth Fall Semester	Credits
CHM 402 Biochemistry	3
Chemistry/Biology Elective *(300- or 400-level chemistry or biology courses)*	3
BIO 416 Microbiology	3
BIO 417 Microbiology Lab	2
Elective	3
Elective	3
Total	17

Fourth Spring Semester	Credits
CHM 455 Biotechnology Techniques	4
CHM 471 Faculty Colloquium	1
Chemistry/Biology Elective *(300- or 400-level chemistry or biology courses)*	3
Chemistry/Biology Elective *(300- or 400-level chemistry or biology courses)*	3
Elective	3
Elective	3
Total	17

Electives are to meet General Education requirements for B.S. degree.

Honors Program

The Chemistry Department participates in the **Honors Program** at CSU by requiring honors students who are chemistry majors (available for all tracks) to register for research courses (either **CHM 379H Independent Study** or, with senior status, **CHM 479H Senior Research**) under the guidance of a professor who acts as mentor. Honors chemistry students are required to enroll in at least 2 credit hours of research coursework each semester, for a minimum of 8 credit hours by the time of degree completion. Students are required to begin enrolling in research courses upon declaration of a Chemistry major or upon acceptance into the Honors Program. By getting involved in scientific research as soon as possible, honors students will bett er understand chemistry's status as a bench science and have the opportunity to participate in original, ground-breaking laboratory work.

Secondary Teacher Licensure

Students have the option of a single field licensure in chemistry, a dual field licens ure in physical science and chemistry, or an integrated science licensure with a concentration in chemistry. All licensure programs require coursework from the College of Science and the College of Education and Human Services. Contact the Chemistry adviser for req uired science courses. Contact the Education Student Service Center for the education courses required for licensure or for informa tion on the requirements for Post-Baccalaureate Secondary Teacher Licensure (216-687-4625 or Rhodes Tower 1401).

Chemistry Minor

Requirements for minor:

General Chemistry (**CHM 261**, **262** or **272**, **266** and **267** or **277** or **278**) and 14 additional credits in chemistry courses numbered 300 or higher.

Environmental Science

On this page:

- **Back to Science College Degree Listing**
- **At-a-Glance**
- **Major Requirements (B.S.)**
- **Environmental Science Minor**
- **EVS Courses**
- **Go to Biology, Geology, and Environmental Science Web Site**

Environmental Science (B.S.)
At-a-Glance

Hours required for major: 75

Hours required for minor: 19 or 20

Special Tracks: Environmental Biology, **Environmental Geology**, **Environmental Chemistry**, **Environmental Technology**, **Environmental Planning**

Additional Information: The Tarun K. Mal Award is presented annually to outstanding graduating environmental science major(s)

Student Organizations: The Biology, Geology, Environmental Science Student Association

Advising: Consult the **BGES office** (216) 687-2440 or e-mail **bges@csuohio.edu**

The B.S. in Environmental Science is a multidisciplinary degree offered through the Department of Biological, Geological, and Environmental Sciences (BGES) that provides a solid foundation in the basic sciences while permitting specialization in an area of focused study.

Note: Environmental Science is part of the Department of Biological, Geological, and Environmental Sciences.

Major-Field Requirements

All majors must take 59 credits of core courses and 16 elective credits in one of the special environmental foci described below.

A. Required Core Courses (59 credits)

- **MTH 147 Statistical Concepts with Applications**
  (**or** one of the following: **ANT 305**, **PSY 311**, **SOC 354**, **BIO 540**)
- **PHY 221 College Physics I**
  (**or PHY 241**, University Physics I)
- **PHY 470 Environmental Physics**
- **CHM 261/266 General Chemistry I**
- **CHM 262/267 (or 278) General Chemistry II**
  (**or CHM 272/277**, Honors General Chemistry)
- **BIO 200/201 Introductory Biology I**
- **BIO 202/203 Introductory Biology II**
- **GEO 323 Geospatial Concepts & Tools**
  (**or UST 403**, Cartography and Graphics)
- **EVS 206 Introduction to Environmental Science**
- **EVS 300/301 Physical Features of Ecosystems**
- **EVS 302/303 Biological Features of Ecosystems**
- **EVS 499 Exit Evaluation**

and **two** of the following planning and policy courses:

- **ENV 435 Environmental Policy**
- **ENV 441 Environmental Planning**
- **ENV 442 Environmental Finance and Capital Budgeting**
- **CVE 471 Environmental Law, Regulation, and Compliance**

and **one** of the following capstone courses:

- **EVS 490 Internship in Environmental Science**
- **EVS 496 Independent Study in Environmental Science**
- **EVS 497 Research in Environmental Science**

Recommendation: Although not required, students are urged to take **MTH 181 Calculus I** and **MTH 182 Calculus II**.

B. Elective Environmental Focus (16 credits)

Students earning a B. S. in Environmental Science must choose a focus area by selecting elective courses (totaling at least 16 credits) from among those given in **one** of the following course lists.

- **Environmental Biology**
- **Environmental Geology**
- **Environmental Chemistry**
- **Environmental Technology**
- **Environmental Planning**

Environmental Biology

- **BIO 300/301 Plant Biology**
- **BIO 302/303 Animal Biology**
- **BIO 304/305 Population Biology and Evolution**
- **BIO 416/417 Microbiology**
- **BIO 420/421 Comparative Vertebrate Anatomy**
- **BIO 424/425 Principles of Animal Physiology**
- **BIO 450 Evolutionary Biology**
- **BIO 452 Marine Ecology**
- **BIO 453 Field Experience in Ecology and Conservation**
- **BIO 454/455 Ecology**
- **BIO 471 Summer Local Flora**
- **BIO 472 Wetland Ecology**
- **BIO 473 Spring Local Flora**
- **BIO 474 Stream Ecology**
- **EVS 450 Applied Ecology**
- **EVS 454 Conservation Biology**
- **EVS 455 Conservation Biology Laboratory**
- **EVS 470 Aquatic Ecosystems**

Environmental Geology

- **GEO 230 Natural Resources**
- **GEO 304/305 Mineralogy**
- **GEO 306/307 Petrology**
- **GEO 312/313 Sedimentation and Stratigraphy**
- **GEO 354 Geochemistry**
- **GEO 420/421 Rivers and Watershed of Northeast Ohio**
- **GEO 425 Introduction to Geographic Information Systems and Remote Sensing**
- **GEO 427 Advanced Topics in Geographic Information Systems & Remote Sensing**
- **GEO 444/445 Hydrogeology**
- **GEO 460 Geomorphology**

Environmental Chemistry

- **CHM 310/315 Survey Analytical Chemistry**
- **CHM 311/316 Quantitative Analysis**
- **CHM 320 Survey of Physical Chemistry**
- **CHM 331/336 Organic Chemistry I**
- **CHM 332/337 (or 338) Organic Chemistry II**
- **CHM 404/406 Environmental Chemistry**

Environmental Technology

- **ESC 203 Statics and Dynamics**
- **ESC 250 Differential Equations for Engineers**
- **ESC 301 Fluid Mechanics**
- **CHE 461 Principles of Air Pollution Control**
- **CVE 211/212 Surveying**
- **CVE 361 Hydraulic Engineering**
- **CVE 371 Environmental Engineering I**
- **CVE 450 Environmental Technology**
- **CVE 473/474 Environmental Engineering II**
- **CVE 475 Solid and Hazardous Waste Engineering**

Environmental Planning

- **ECN 202 Principles of Microeconomics**
- **ECN 474 Environmental and Natural Resource Economics**
- **GEO 425 Introduction to Geographic Information Systems and Remote Sensing**
- **GEO 427 Advanced Topics in Geographic Information Systems and Remote Sensing**
- **UST 300 Economics of Policy Analysis**
- **UST 375 Cities and Planning**
- **UST 434 Introduction to Geographic Information Systems**
- **ENV 440 Environment and Human Affairs**
- **ENV 443 Environmental Regulatory Compliance**
- **MLR 301 Principles of Management**

With the approval of the departmental adviser, a student may develop an alternative selection of focused electives from the above lists.

Environmental Science Minor

A minor program of study in Environmental Science consists of 19 or 20 credit hours. **BIO 202/203**, **EVS 206**, **EVS 300/301**, and **EVS 302/303** are required courses. Select one of the following courses to complete the minor: **CHM 255**, **CVE 471**, or **GEO 323**.

Geological Sciences

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- **At-a-Glance**
- **Degree Programs**
- **Major Requirements (BA and BS)**
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- **Minor in Geology**
- **GEO Courses**
- **Go to Biology, Geology, and Environmental Science Web Site**

Geological Sciences (B.S., B.A.)

At-a-Glance

Geology is the study of the composition, structure, and history of the earth and its planetary neighbors. It deals with phenomena on, above, and below the surface of the earth, including those that take place on land, in the oceans, and in the air. It is a basic entry point for studies of natural resources and the human environment. It is a multidisciplinary science, drawing upon and, in turn, contributing to, the body of knowledge in the fields of chemistry, physics, biology, and mathematics. In recognition of this fact, the undergraduate geology programs which are offered through the Department of Biological, Geological, and Environmental Sciences are designed to provide broad training in geological sciences. Students interested in either a B.S. degree in **Environmental Sciences** (offered by BGES) or a B.A. degree in **Environmental Studies**
(offered through the College of Urban Affairs) should consult the catalog listing for those programs.

Degree Programs in Geology

The Bachelor of Arts and the Bachelor of Science degree programs in Geology are designed for students who intend to pursue careers in geology or closely related fields. They provide a solid grounding in the earth sciences, as well as the ancillary subject areas upon which the earth sciences depend. The Bachelor of Science degree is recommended for students wishing to go on to graduate school in the sciences or engineering and whose career directions are primarily technical or scientific. The Bachelor of Arts degree is designed for students wishing to acquire a general knowledge of geology as preparation for careers in related fields, such as law, business, or earth science certification in secondary education.

All geology programs are modular. They include a common core in the earth sciences and a series of courses common to the B.A. and/or B.S. degree. A grade of C is the minimum passing grade for all required major courses offered by the department. A major program in geology is not available for evening students.

Major-Field Requirements

Common Core in the Earth Sciences

All geology majors must take the following first- and second-year courses in geology, basic science, and mathematics:

- **GEO 100 Introductory Geology**
- **GEO 101 Introductory Geology Laboratory**
- **GEO 323 Geospatial Concepts and Tools**
- **CHM 261/266 and 262/267 (or 278) General Chemistry**
- **MTH 181** and **182** Calculus (required for the B.S.; optional for B.A.)
  or 6 credit hours from the **MTH 151-156** series (required for B.A. if calculus is not taken)
- **PHY 221** and **222** College Physics,
  or **241** and **242** University Physics
- **GEO 499 Exit Evaluation**

All geology majors must take a capstone course chosen from the following:

- **GEO 451 Field Geology** (4 credits minimum)
- **GEO 490 Internship in Geology** (3 credits minimum)
- **GEO 496 Independent Study in Geology** (3 credits minimum)
- **GEO 497 Research in Geology** (3 credits minimum)
- **EST 492 Student Teaching** (3 credits minimum)

Candidates for the degree of Bachelor of Science must take 28 credit hours of courses chosen from the following list, and candidates for the degree of Bachelor of Arts must take 20 credit hours of courses chosen from the following list. The array of courses taken will be determined by the student, in consultation with the departmental academic adviser, (216) 687-3506.

- **GEO 202/203 Principles of Paleontology**
- **EVS 206 Introduction to Environmental Science**
- **GEO 230 Natural Resources**
- **GEO 304/305 Mineralogy**

- **GEO 306/307 Petrology**
- **GEO 312/313 Sedimentation and Stratigraphy**
- **GEO 320/321 Structural Geology**
- **GEO 354 Geochemistry**
- **GEO 425 Introduction to Geographic Information Systems and Remote Sensing**
- **GEO 427 Advanced Topics in Remote Sensing and GIS**
- **GEO 444/445 Hydrogeology**
- **GEO 451 Field Geology** (4 credits minimum; may also count toward capstone requirement)
- **GEO 460 Geomorphology** (may also count toward Writing Across the Curriculum requirements)

Secondary Teacher Licensure

Students have the option of a single field licensure in earth science or an integrated science licensure with a concentration in earth science. Both licensure programs require coursework from the College of Science and the College of Education and Human Services. Contact the Geology adviser for required science courses. Contact the Education Student Service Center for the education courses required for licensure or for information on the requirements for Post-Baccalaureate Secondary Teacher Licensure (216-687-4625 or Rhodes Tower 1401).

Geological Sciences Minor

The minor in Geological Sciences is intended as a flexible opportunity for students to incorporate significant course work dealing with the earth sciences into their university careers. All Geology minors must be approved by the departmental adviser and must meet the following criteria:

1. The geology minor consists of **GEO 100/101**
   (Introductory Geology and Laboratory) and at least 13 credit hours above the 100 level. At least 9 credit hours must be above the 200 level.
2. The courses making up the geology minor must comprise a consistent set of courses that makes sense to be taken together as a sequence. The sequence of courses will depend on the particular needs of the individual student, but the sequence as a whole must be approved in advance by the departmental adviser.

A grade of "C" is the minimum passing grade for all courses offered by the department and applied toward a minor.

Students interested in the minor program should consult with the departmental adviser (216-687-3506).

Health Sciences

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Health Sciences (B.S.)
At-a-Glance

Degree Granted: Bachelor of Science (B.S.)

Admission to major:
Any student who has been accepted by Cleveland State University and who is in good academic standing can choose to major in Health Sciences.

Admission to the Pre-Podiatry Track:
Students must apply for admission into the Pre-Podiatry Track. If a student enters Cleveland State University (CSU) with a high school GPA of 3.75 or higher and an ACT score of 29 or higher or SAT score of 1270 or higher, and maintains a GPA of at least a 3.2 at CSU, the student will continue automatically into the Ohio College of Podiatric Medicine (OCPM) curriculum after three years at CSU and completion of 92-96 semester credit hours of the pre-professional courses and health sciences core courses. Students who enter CSU with less than a high school GPA of 3.75, standardized scores beneath the stated limits, or if a cumulative 3.2 GPA is not maintained at CSU, then they will enter the regular applicant pool for admission to OCPM, must complete the Medical College Admission Test (MCAT) or Graduate Record Exam (GRE), and have completed or nearly completed the 92-96 semester credit hours of CSU pre-professional courses and health sciences core courses at the time of application.

Minimum hours required for major:
Students must complete the core courses and 53 credit hours in an area of emphasis. Areas of emphasis for the Pre-therapy and Pre-Podiatry tracks are described below. Students in the General Interest and Associate Degree/Bachelor of Science completion track are designed based on individual interests and must be approved by an HSC adviser.

Four tracks are offered: **General Interest**
for the student interested in health-related careers but who is uncertain about which health profession to pursue; **Associate Degree/Bachelor of Science Completion Program**
for the student already holding an associate degree in a health-related field who wishes to complete a baccalaureate degree; **Pre-Therapy**
for the student planning to enter the Doctor of Physical Therapy Program or Master of Occupational Therapy Program; and **Pre-Podiatry**
(Bachelor of Science in Health Sciences/Doctorate of Podiatric Medicine with the Ohio College of Podiatric Medicine), where qualified students complete three years of study at CSU and four years of study at the OCPM.

Upper-Division Honors Program:
Qualified Health Sciences majors may pursue admission into the Health Sciences Upper Division Honors Program (available for all tracks). All credits earned through the Health Sciences Upper Division Honors Program will be applied to the Area of Emphasis.

Capstone Project Requirement:
Students will be required to complete a capstone project. Details of this requirement are pending and will be posted on the Bachelor of Science in Health Sciences Web site once officially approved. Credits earned will be applied to the Area of Emphasis.

Special requirement:
Students pursuing a B.S. in Health Sciences must earn grades of "C" or above in order for courses to count toward satisfying the requirements for the health sciences major. Students in the Pre-Podiatry track may apply for a B.S. in Health Sciences once they successfully complete their first year of course work at OCPM.

In order to graduate with honors in Health Sciences, students must apply for acceptance into the **Upper Division Honors Program** and complete the required three-course series, **HSC 484**, **HSC 438**, and **HSC 439**. The Health Sciences Department is planning on expanding its Upper Division Honors Program to include additional courses of study. Any future changes will be posted on the Bachelor of Science in Health Sciences Web site.

Advising: Students must call the department for an appointment with an adviser.

Department of Health Sciences Telephone: (216) 687-3567

Internet: http://sciences.csuohio.edu/departments/health/

E-mail: healthsci@csuohio.edu

Major-Field Requirements

In addition to fulfilling the general course requirements of the university and the college, B.S. in Health Sciences majors are required to complete the Health Sciences Core and 53 credits specific to an area of emphasis within one of four tracks: General Interest, Associate Degree/Bachelor of Science Completion, Pre-Therapy, or Pre-Podiatry.

Areas of Emphasis

Students in the General Interest, Associate Degree/Bachelor of Science Completion, and Pre-Therapy tracks are required to establish an Area of Emphasis. Students work with an adviser to design an Area of Emphasis reflecting their particular interests and the skills required for the kinds of positions they wish to pursue. Students are encouraged to explore with their HSC adviser minors and certificate programs which may be applied toward their Area of Emphasis. Students will then update their program of study at least annually in collaboration with their adviser. The number of credits in the Area of Emphasis must be at least 53 and will vary depending on the specific track and area of interest the student wishes to pursue. Advising will be provided by faculty in the Department of Health Sciences or by an adviser in the College of Science Dean's Office, and every student must have an approved program of study by the end of his or her first semester in the major.

The curriculum includes:

- Completion of university and college requirements for the Bachelor of Science degree;
- Completion of a core of health sciences courses;
- A minimum of 53 credits of concentration in a health-care area of emphasis or all required courses for the specific track;
- Completion of required upper-division credits;
- Completion of a minimum of 128 semester hours of study

Required health sciences core courses (all tracks):

- **HSC 200 Introduction to Health Careers**
  (except for Pre-Podiatry track and waived for Tri-C and Lakeland Community College 2+2 students)
- **HSC 203 Medical Terminology**
- **HSC 305 Culture and Health**
- **PSY 311** (required for Pre-Therapy Track – pre-physical therapy emphasis)
  or **MTH 147** Statistics
- **PHL 240 Health Care Ethics**

Required Capstone Project (all tracks except Pre-Podiatry): details pending and will be available on the Bachelor of Science in Health Sciences Web site once approved.

Recommended Courses (all tracks):

- **CSC 121/321 Career Orientation**
- **CSC 300/400 Co-op Field Experience**
- **ENG 301 Advanced Expository Writing**
- **HSC 483 Writing in Health Sciences**
- **HSC 484 Advanced Research and Writing in Health Sciences**

Tracks

Associate Degree/Bachelor of Science Completion Track

Designed for the student already holding an associate degree in a health-related field who wishes to complete a baccalaureate degree. In addition to the health sciences core, students interested in this track must complete a minimum of 53 credits in an area of emphasis. *Students are encouraged to explore with their HSC adviser minors and certificate programs which may be applied toward their area of emphasis.*
A special articulation agreement is applied to students who have completed an Associate's Degree in Allied Health from Cuyahoga Community College (Tri-C) or Lakeland Community College.

General Interest Track

Designed for students interested in health-related careers but who are uncertain which profession they prefer at this time. Students must complete a minimum of 53 credits in an area of emphasis, in addition to the health sciences core. Students are encouraged to explore with their HSC adviser minors and certificate programs which may be applied toward their area of emphasis. The Health Sciences Department is in the process of developing General Interest Track Areas of Emphasis for pre-professional programs such as pre-medical, pre-dental, pre-veterinarian, and pre-physician assistant. Students are encouraged to visit the **Bachelor of Science in Health Sciences Web site** for updated information.

Pre-Therapy Track

A student choosing the Pre-Therapy Track must complete the 53 credits of programmatic prerequisites for either the Master of Occupational Therapy Program (MOT) or Doctor of Physical Therapy Program (DPT), including the required health sciences core.
Students interested in entering the Master of Occupational Therapy or Doctor of Physical Therapy must complete the following:

- **BIO 200 Introductory Biology**
- **BIO 201 Introductory Biology Lab**
- **HSC 381 Pathology**
- **HSC 422** or **BIO 422/423** Physiology with lab
- **HSC 475/457 Human Gross Anatomy** with lab
- **HSC 476/478** Neurosciences with lab

Pre-Occupational Therapy Area of Emphasis: Students interested in the Master of Occupational Therapy Program must also complete the following, plus 18 credits in an area of emphasis:

- **PSY 101 Introduction to Psychology**
- **PSY 223 Life Span Development**
- **PSY 345 Abnormal Psychology**

Students choosing this Area of Emphasis may sign an Intent to Enroll in the Master of Occupational Therapy Program Form as early as the end of freshman year if they have an overall G.P.A. of 3.0 or above. For additional information concerning the Master of Occupational Therapy or the Intent to Enroll Form, consult the **Graduate Catalog**, or contact the **Health Sciences Department**.

Pre-Physical TherapyArea of Emphasis: Students interested in entering the Doctor of Physical Therapy Program must also complete the following:

- **CHM 251**/256 College Chemistry I and Lab
- **CHM 252**/257 College Chemistry II and Lab
- **PHY 221 College Physics I and Lab**
- **PHY 222 College Physics II and Lab**
- Two **Psychology courses**
- One **Sociology course**

For additional information regarding the Doctor of Physical Therapy, consult the **Graduate Catalog** or contact the **Health Sciences Department**.

Pre-Podiatry Track

Offered with the Ohio College of Podiatric Medicine (OCPM). Consists of three years of study at the pre-professional undergraduate level at Cleveland State University, including the health sciences core (except students do not need to take HSC 200). Qualified students then complete four years of study at the professional and clinical level at the OCPM. Upon completion of required course work during their first year of study at OCPM, students may apply for a B.S. degree in Health Sciences. With four additional years of study at OCPM beyond the three-year program at Cleveland State, students may qualify to receive the degree of Doctor of Podiatric Medicine.

In addition to the general university and college requirements and the Health Sciences Core, except HSC 200, students take a series of pre-professional courses in biology, chemistry, physics, English, and General Education course work as listed below:

Required Pre-professional Courses:

- **BIO 200/201 Intro Biology I**
- **BIO 202/203 Intro Biology II**
- **CHM 261/266 College Chemistry I**
- **CHM 262/267 College Chemistry II** or **CHM 272/277 (Honors)(6)**
- **CHM 331/336 Organic Chemistry I**
- **CHM 332/337 (or 338) Organic Chemistry II**
- **PHY 221 College Physics I and Lab**
- **PHY 222 College Physics II and Lab**
- **English** - 6 Credit Hours
- General Education Courses - 52-56 Credit Hours

Required Professional Courses:
Maximum transfer of 34-36 credits from OCPM to reach required 128 credits for the B.S. in Health Sciences. Health Sciences will accept 34-36 credits from the OCPM first-year program:

- BSC 111: Gross Anatomy
- BSC 112 Histology
- BSC 113 Biochemistry
- PMD 111 Podiatric Medicine I
- BSC 124 Lower Extremity Anatomy
- BSC 125 Neurobiology
- BSC 126 Physiology
- BSC 127 Basic Microbiology & Immunology

If needed, Health Sciences may accept some credits from the OCPM second-year program:

- BSC 216 Microbiology & Infectious Diseases
- BSC 218 Pathology
- BSC 219 Pharmacology & Therapeutics
- BSC 228 Pathology
- BSC 229 Pharmacology & Therapeutics

Upper Division Honors Program

The Upper Division Honors Program is designed for the Health Sciences major who is considering graduate-level training and seeks engaged learning opportunities in research. The honors program is available for all tracks. Application for admission to the program must be made at least 30 days before the semester in which the applicant wishes to enter, typically the summer semester before their junior or senior year. A minimum overall GPA of 3.5 is required for admission. Students accepted into the Health Sciences Honors Program must take the following series of courses: **HSC 484 Advanced Research and Writing in Health Sciences**; **HSC 438H Honors Independent Research I**; **HSC 439H Honors Independent Research II**.

Students first enroll in HSC 484 Advanced Research and Writing in Health Sciences during which time students become familiar with current faculty research, research in their field of interest, gain advanced knowledge and skill in research methodology, and design a research project under faculty mentorship. Any student may register for HSC 484. Research projects for the Honors Program must be pre-approved by an HSC adviser.

Research proposed during HSC 484 Advanced Research and Writing in Health Sciences is conducted during each semester of the junior or senior year while students are enrolled in HSC 438H Honors Independent Research I and HSC 439H Honors Independent Research II. Enrollment in these two courses is restricted to honors students only. The Honors thesis results from this research and will be presented as a poster to students and faculty during Health Sciences Honors Research Day or during the College of Science Research Day. The student is required to defend his/her thesis during the poster session. The successful completion of the requirements for the program leads to recommendation by the departmental Honors Committee for graduation with honors in Health Sciences. Achievement of this goal is indicated on the student's transcript.

Research projects can be basic or applied research using a variety of methodologies. Students may complete their research project working in collaboration with departmental master's degree students or faculty, or they can complete independent pilot studies. All research projects must be approved by their assigned departmental adviser.

Health Sciences majors are required to complete 53 credit hours toward an Area of Emphasis. The Honors Program course credits will count as Health Sciences Area of Emphasis credits.

Future options for the Honors Program are pending approval. Students are encouraged to check the **Bachelor of Science in Health Sciences Web site** for details.

Mathematics

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- **Major Requirements** (BA and BS)
- **Second Major for Computer Science Students**
- **Secondary Teacher Licensure**
- **Minor in Mathematics**
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- **Go to Mathematics Web Site**

Mathematics (B.S., B.A.)
At-a-Glance

Admission to major: MTH 181, **MTH 182** with a grade of C or better in each

Minimum hours required for major: 46

Hours required for minor: 24

Special tracks: Actuarial, applied mathematics, pure mathematics, statistics, secondary teacher licensure

Teacher licensure: Yes

Student organization: Math Club, Pi Mu Epsilon

For further information: (216) 687-4680 or **http://sciences.csuohio.edu/departments/math/**

The department offers the Bachelor of Arts (B.A.) degree and the Bachelor of Science (B.S.) degree in mathematics. The mathematics requirements for the two degrees are identical; the difference between them is the number of science credits that are required (see below: **B.A.**, **B.S.**)

Each course offered by the Mathematics Department is also designed to provide one or more of the following:

- part of the mathematical component of a liberal education
- the mathematical tools needed by students in business, computer science, education, engineering, and the biological, physical, and social sciences
- training beyond the introductory level in the major areas of pure and applied mathematics

The core mathematics requirements for a bachelor's degree form the fundamental building blocks for almost every field of mathematics. By choosing suitable mathematics electives, students may obtain bachelor's degrees that prepare them for mathematical work in business or industry, for the actuarial profession, or for graduate study in mathematics. The following tracks are offered in the B.A. and B.S. programs: general, actuarial, applied mathematics, pure mathematics, and statistics. In addition, a secondary teacher licensure is offered with the **College of Education and Human Services**. Computer Science students can readily **double major in mathematics** by taking appropriate courses. A **mathematics minor** is available as well.

Major-Field Requirements

All mathematics majors must complete a minimum of 46 credits in mathematics. These credits must include the following courses:

- **MTH 181 Calculus I**
- **MTH 182 Calculus II**
- Three courses from the following four:
    - **MTH 220 Discrete Mathematics**
    - **MTH 281 Multivariable Calculus**
    - **MTH 286 Introduction to Differential Equations**
    - **MTH 288 Linear Algebra**

    Note: Students seeking secondary teaching licensure must take **MTH 220**, **MTH 286**, and **MTH 288**.

- **MTH 396 Junior Seminar** (A two-credit-hour course taken in the student's junior year. MTH 396 will be offered for the first time in Spring Semester 2008.)
- **MTH 495 Senior Seminar**
  (The two-credit course MTH 495 must be taken during the student's senior year. MTH 495 will be offered in Fall Semester 2007 and for the last time in Fall Semester 2008.)

  * Math majors who complete MTH 495 Senior Seminar should not take MTH 396 Junior Seminar and MTH 496 Senior Project. These students, under the current requirement, will complete a minimum of 42 credits in mathematics.

- **MTH 496 Senior Project** (A four-credit-hour course taken in the student's senior year. MTH 496 will be offered for the first time in Fall Semester 2008.)

The remaining 20 credits must be in mathematics courses numbered 300 or above (excluding **MTH 326**, **MTH 327**, **MTH 328**, **MTH 329**, and **MTH 330**). Two of these courses must be numbered 400 or above.

A grade of C or better must be earned in each of **MTH 181**, **MTH 182**, **MTH 220**, **MTH 281**, **MTH 286**, and **MTH 288**.

For the Bachelor of Arts degree:
A mathematics major must complete a minimum of 11 science credits, distributed in one or any combination of the following fields: biology, geology, environmental sciences, chemistry, and physics.

For the Bachelor of Science degree:
A mathematics major must complete a minimum of 24 science credits distributed in one or any combination of the following fields: biology, geology, environmental sciences, chemistry, physics, and computer and information science. These 24 credits must include **PHY 241** (or **PHY 243**) and **PHY 242** (or **PHY 244**). Any courses in computer and information science used to meet this requirement must be courses that satisfy **CIS major-field requirements**.

Recommended Electives for Various Tracks

1. Actuarial: **MTH 301**, **MTH 323**, and **MTH 424**
2. Applied mathematics with emphasis on engineering and the physical sciences: **MTH 301**, **MTH 311**, **MTH 401**, **MTH 434**, and **MTH 487**
3. Applied mathematics with emphasis on numerical computation: **MTH 301**, **MTH 311**, and **MTH 487**
4. Pure mathematics: **MTH 301**, **MTH 358**, **MTH 381**, **MTH 420**, and **MTH 434**
5. Statistics: **MTH 301**, **MTH 323**, and **MTH 424**
6. Secondary school teaching: **MTH 301**, **MTH 323**, **MTH 333**, **MTH 358**, **and MTH 401**
7. Another possible elective is **MTH 493**
   (Special Topics in Mathematics). Its content varies widely from year to year; consult the Mathematics Department for current information. A student may also arrange to take an individual reading course (**MTH 497**) on an advanced mathematical topic not included in the regular course offerings of the department. Such reading courses are subject to departmental approval.

Prospective mathematics majors should make every effort to complete 100- and 200-level mathematics courses by the end of their sophomore year. Otherwise they may have difficulty in scheduling required advanced courses and electives. Students who decide to major in mathematics should consult an adviser in the Mathematics Department early in the sophomore year to work out a program of advanced courses suited to their career objectives and capabilities. When preparing for this meeting, students should carefully consider the preceding recommendations.

Second Major for Computer Science Students

Students in either the **CIS** or **CSC**
program who choose a concentration in mathematics can, by suitably choosing electives and with 2 additional credits in mathematics, complete all mathematics requirements for the Bachelor of Science degree with a major in mathematics. See your **CIS Department** adviser and an adviser in the **Mathematics Department** for further information.

Secondary Teacher Licensure

Students have the option of a single field licensure in mathematics. This licensure program requires coursework from the College of Science and the College of Education and Human Services. Contact the Mathematics adviser for required science courses. Contact the Education Student Service Center for the education courses required for licensure or for information on the requirements for Post-Baccalaureate Secondary Teacher Licensure (216-687-4625 or Rhodes Tower 1401).

Mathematics Minor

A minor in mathematics consists of 24 credits in mathematics, including:

- **MTH 181 Calculus I**
- **MTH 182 Calculus II**
- 8 credits chosen from among:
  - **MTH 220 Discrete Mathematics**
  - **MTH 281 Multivariable Calculus**
  - **MTH 283 Multivariable Calculus for Engineers**
  - **MTH 284 Matrices for Engineers**
  - **MTH 286 Introduction to Differential Equations**
  - **MTH 288 Linear Algebra**

    Note: **MTH 281** and **MTH 283** may not both be used.

    MTH 284 and **MTH 288** may not both be used.

The remaining 8 credits must be in mathematics courses numbered 300 or above, excluding MTH 326, MTH 327, MTH 328, MTH 329 and MTH 330.

Physics

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  - **B.A.**
- **Secondary Teacher Licensure**
- **Physics Minor**
- **PHY Courses**
- **Go to Physics Web Site**

Physics (B.S., B.A.)
At-a-Glance

Minimum hours required for B.A. major: 76

Minimum hours required for B.S. major: 68

Minimum hours required for minor: 18

Advising: Call Dr. Kaufman (216) 687-2436 or Dr. Walker (216) 687-2424

A major or minor in physics will help you prepare for a wide range of careers in product development, research, teaching, and many other fields where you combine your knowledge of physics with other disciplines. The Physics Department offers you a choice of three undergraduate programs to suit your particular goals, interests and strengths:

Bachelor of Science: preparation for technical careers in industry and research centers and for graduate studies

Bachelor of Science Honors: preparation for careers in research and for doctoral studies in physics

Bachelor of Arts:
preparation for careers in applied (engineering) physics, computer science, education, medicine, law, technical sales, scientific journalism or other fields where analytic skills and broad understanding of physics are important. Students majoring in Engineering or in Computer and Information Science (CIM and CIS calculus based; physics option) can earn the B.A. in Physics as an additional degree with a modest increase in course requirements.

Physics Minor: provides students majoring in other technical fields with additional skills, thus broadening their career options.

Major-Field Requirements

Major-Field Requirements for B.S. in Physics

- the following required physics courses: **PHY 243**, **PHY 244**, **PHY 330**, **PHY 340**, **PHY 350**, **PHY 440**, **PHY 450**, **PHY 455**, **PHY 474**, **PHY 475**;
- at least 10 credits of technical electives to be selected from 300- and 400-level courses in physics, chemistry, mathematics, or engineering approved by the physics adviser;
- the following required mathematics and computer science courses: **MTH 181**, **MTH 182**, **MTH 281**, **CIS 260**.

Major-Field Requirements for B.S. Honors in Physics

- the following required physics courses: **PHY 243**, **PHY 244**, **PHY 330**, **PHY 340**, **PHY 350**, **PHY 440**, **PHY 450**, **PHY 455**, **PHY 474**, **PHY 475**;
- at least 10 credits from: **PHY395** (Seminar), **PHY441** (Quantum Mechanics II), **PHY493** (at least 2 credit hours of research with written and oral presentations);
- the following required mathematics and computer science courses: **MTH 181**, **MTH 182**, **MTH 281**, **CIS 260**;
- Cumulative grade-point average, upon graduation, of 3.20 or higher in PHY and MTH courses. A student who does not achieve this, but meets all the requirements for the B.S. degree in Physics, will receive that degree instead.

Major-Field Requirements for B.A. in Physics are:

- the following required physics courses: **PHY 243**, **PHY 244**, **PHY 330**, **PHY 474**;
- 16 credits of physics electives to be selected from the following list: **PHY 201**, **PHY 202**, and all the 300- and 400-level physics courses;
- the following required mathematics and computer science courses: **MTH 181**, **MTH 182**, **MTH 281** or (**MTH 220** and **MTH 284**), **CIS 260**;
- introductory sequence of chemistry with associated laboratory courses (**CHM 261**, **CHM 262**, **CHM 266**, **CHM 267**), or introductory sequence of biology with associated laboratory courses (**BIO 200**, **BIO 201**, **BIO 202**, **BIO 203**), or the following computer and information science courses: **CIS 265**, and **any other 4-credit-hour 300-level CIS course**;
- 16 upper-division credits in a coherent program from a different discipline such as biology, chemistry, computer science, mathematics, environmental science, education or engineering. Program must be approved by the Physics Department adviser.

Secondary Teacher Licensure

Students have the option of a single field licensure in physics, a dual field licensure in physical science and chemistry, or an integrated science licensure with a concentration in physics. All licensure programs require coursework from the College of Science and the College of Education and Human Services. Contact the Physics adviser for required science courses. Contact the Education Student Service Center for the education courses required for licensure or for information on the requirements for Post-Baccalaureate Secondary Teacher Licensure (216-687-4625 or Rhodes Tower 1401).

Physics Minor

Physics Minor Requirements

- the following required physics courses: **PHY 243**, **PHY 244**
- at least 8 credits of 300- and 400-level physics courses

Psychology

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    - **Evening Major**
- **Honors Program**
- **Psychology Minor**
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- **Go to Psychology Web Site**

Psychology (B.A.)
At-a-Glance

Minimum hours required for major: 36

Minimum hours required for minor:
19. Students may design a minor which best fits with their major. Guidelines are available in the Psychology Department, Chester Building 158.

Advising:
Students may make an appointment for advising by a faculty member with the Psychology Department secretary in CB 158 or by calling (216) 687-2544.

Student Organizations:
Psi Chi (a national psychology scholastic honorary), and the Psychology Club (an organization of undergraduate psychology majors)

Additional information:

The study of psychology is concerned with explaining, predicting, and describing the thoughts, emotions, and actions of humans and animals. A major or minor in psychology provides an excellent background for occupations in such diverse fields as business, education, and the human services. A major provides the basis for graduate training leading to the pursuit of psychology as a profession in either the academic or applied areas.

It is possible to major in psychology by taking courses only in the evening. However, the choice of courses to meet the degree requirements is limited.

Undergraduate credit is available for approved internships and fieldwork experience (**PSY 390**).

Independent Study opportunities may be arranged by the student (**PSY 396**).

An Outstanding Undergraduate Psychology Student award is presented annually by the department.

Major-Field Requirements (B.A.)

All majors are required to take a minimum of 36 credits of psychology course work. Students must earn grades of C or above in order for courses to count toward satisfying the requirements for the psychology major.

1. Required courses:
    - **PSY 101 Introduction to Psychology**
    - **PSY 311 Behavioral Science Statistics** (**ANT 305** or **OMS 201** and **OMS 202** may be substituted)
    - **PSY 412 Psychology Laboratory**
    - **PSY 499 Exit Evaluation**
2. One course from each of the following areas:
    - *Core A*
        - **PSY 339 Social Psychology**
        - **PSY 342 Psychology of Personality**
        - **PSY 344 Intellectual and Personality Testing**
        - **PSY 345 Abnormal Psychology**
    - *Core B*
        - **PSY 368 Perceptual Processes**
        - **PSY 370 Psychology of Learning**
        - **PSY 372 Memory and Cognition**
        - **PSY 451 Human Performance**
        - **PSY 479 History of Psychology**
    - *Core C*
        - **PSY 385 Psychology of Motivation**
        - **PSY 481 Psychopharmacology**
        - **PSY 482 Biological Basis of Behavior**
        - **PSY 487 Brain and Cognition**
3. 12 hours of electives: any course offered by the Psychology Department

No more than 8 credit hours (combined) of **PSY 390** and **PSY 396** may be applied toward the major.

Students majoring in psychology also are encouraged to do course work in the areas of sociology, the philosophy of science, biology, and anthropology. Those planning to go to graduate school should obtain a solid background in mathematics, research methods, and experimental psychology.

Students anticipating application for admission to graduate programs in psychology should consult their faculty advisers in the department about the appropriate structuring of their undergraduate curriculum. This is advisable for both psychology and non-psychology majors.

Evening Major in Psychology

A major in psychology is available to evening students. However, the choice of courses to meet the degree requirements is limited.

Honors Program in Psychology

The Honors Program is designed for the psychology major that is considering graduate-level training and wants additional exposure to the research process. Honors Program information can be found at: **http://sciences.csuohio.edu/departments/psychology/undergraduate/honors_program.htm**. Application forms for the Honors Program can be located at CB 158. Students accepted into the program enroll in **PSY 495 Honors Seminar**
as second semester juniors. During this time, students identify a faculty research mentor and propose their research. The research is conducted, and the Honors Project is completed while enrolled in **PSY 497H Senior Project**, during each semester of the senior year.

Psychology Minor

The minimum requirements for the psychology minor are: **PSY 101** (Introduction to Psychology); 2 courses, one each from any two of the three Core areas A, B, or C (**see Major-Field Requirements above**); 7 credit hours of psychology electives, with at least one course at the 300- or 400-level.

Students must earn grades of C or above in order for courses to count toward satisfying the requirements for the psychology minor.

Speech and Hearing

On this page:

- **Back to Science College Degree Listing**
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- **Major Requirements (BA)**
- **School Audiology and School Speech-Pathology**
- **Speech and Hearing Minor**
- **SPH Courses**
- **Go to Speech and Hearing Web Site**

Speech and Hearing (B.A.)
At-a-Glance

Minimum hours required for major: 40

Minimum hours required for minor: 18

Advising: Faculty adviser assigned upon declaration of major. Phone (216) 687-3807.

Student organization: Chapter of NSSLHA (National Student Speech-Language-Hearing Association

The Speech and Hearing Program offers course work for students who wish to enter the profession of speech-language pathology or audiology, which are concerned with the identification and treatment of communication disorders in human beings across the lifespan. Speech and hearing are interrelated fields concerned with human communication, that require knowledge of biology, psychology, sociology, and linguistics. The program at Cleveland State University provides an excellent pre-professional foundation that prepares students for professional training at the master's and doctoral levels. Students may also earn an undergraduate minor in Speech and Hearing which is especially valuable for students majoring in education, special education, or the health-care professions.

Major-Field Requirements

At the undergraduate level, students majoring in Speech and Hearing are required to take the following 40 credit hours:

Core Courses

- **SPH 228 Phonetics**
- **SPH 229 Speech and Language Development**
- **SPH 231 Introduction to Communication Disorders**
- **SPH 232 Introduction to Audiology**
- **SPH 251 American Sign Language I**
- **SPH 335 Clinical Methods in Communication Disorders**
- **SPH 351 Anatomy and Physiology of the Speech and Hearing Mechanism**
- **SPH 431 Basic Speech-Language Disorders**
- **SPH 434 Clinical Practicum in Speech-Language Pathology**
- **SPH 438 Dialect Differences in the Schools**
- **SPH 481 Aural Rehabilitation**
- **SPH 482 Audiometry**
- **SPH 485 Speech and Hearing Science**
- **SPH 486 Clinical Practicum in Audiology**
- **SPH 497 Senior Capstone Portfolio**

Evening Program

It is not possible to complete the undergraduate Speech and Hearing major solely in the evening. The program attempts to offer a variety of required courses in the evening but cannot staff a complete evening major. Evening students should make an appointment with the Program Director to discuss the program and its offerings.

School Speech-Language Pathology

The Master of Arts in Speech-Language Pathology and Audiology is the minimum degree requirement for those students seeking the Professional Pupil Services License to practice as a school speech-language pathologist. In addition to the courses required for the Master of Arts degree, students must also complete the coursework listed below. Once these additional course requirements have been met, students are able to apply to the State Board for licensure.

- SPH 535 Organization and Administration of a Public School Speech and Hearing Program (See **Graduate Catalog**)
- SPH 594 Dialect Differences in the Schools (See **Graduate Catalog**)
- EST 575 Practicum in Speech and Hearing Therapy (See **Graduate Catalog**)

Speech and Hearing Minor

The Speech and Hearing minor, which is especially valuable for students majoring in education, special education, or the health-care

professions, provides the student with a foundation regarding the developmental and normative aspects of speech, language, and hearing. Required courses amounting to 18 credits include: **SPH 228**, **SPH 229**, **SPH 231**, and **SPH 232**. Two additional courses are to be selected from the following: **SPH 351**, **SPH 431**, **SPH 438**, **SPH 481**, **SPH 482**, and **SPH 485**.

College of Science

Certificates

- **Biotechnology**
- **Gerontological Studies**

In addition, a bioethics certificate program is offered through the Philosophy Department in the College of Liberal Arts and Social Sciences. Further information may be found at **http://www.csuohio.edu/philosophy/bioethics.htm**.

College of Science: Certificate Programs

Biotechnology (Certificate)

The biotechnology industry is one of the fastest growing industries in northeastern Ohio. The Certificate in Biotechnology — Laboratory Track, which is administered through the Department of **Biological, Geological, and Environmental Sciences**, is an interdisciplinary program that builds on majors in biology or chemistry and exposes students to areas of knowledge that are not part of the typical major, but are underpinnings for the biotechnology industry. The certificate program provides students with the appropriate qualifications to enter the segment of the workforce that is responsible for the development and quality-control aspects of the biotechnology industry. Students in the Biotechnology Certificate Program are eligible to participate in the Cooperative Education Program through the Career Services Center even if they are not seeking a degree at Cleveland State University.

Required Courses:

1. Prerequisites:
    - Either currently majoring in biology or chemistry, and completion of two semesters of Introductory Biology, and one semester each of Biochemistry, Cell Biology and Laboratory, Microbiology and Laboratory, and Calculus; or a baccalaureate degree that includes the following courses: two semesters each of Introductory Biology and General Chemistry, and one semester each of Biochemistry, Cell Biology and Laboratory, Microbiology and Laboratory, Organic Chemistry, and Calculus.
2. Required courses:
    - **MTH 147 (4-0-4) Statistical Concepts with Applications**
    - **ESC 120 (1-0-1) Introduction to Engineering Design**
    - **BIO 435 (1-6-4) Techniques in Molecular Biology**
    - **CHE 366 (4-0-4) Bioprocess Engineering Principles**
    - **IME 465 (3-0-3) Manufacturing Systems Engineering**

College of Science: Certificate Programs

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- **Description**
- **Required Courses**
- **Go to Gerontological Studies Program Web Site**

Gerontological Studies

The Gerontological Studies certificate is an interdisciplinary program designed primarily for students planning for a career in the field of aging. The emphasis is upon learning about aging as a basic human experience and as an important aspect of contemporary society.

Note: This certificate program is currently under revision. Please contact Dr. Beth Ekelman of the Department of Health Sciences, director of the program, for further information: b.ekelman@csuohio.edu, (216) 687-3542.

Required Courses:

Students wishing to earn a certificate in Gerontological Studies must complete a minimum of 16 to 17 semester credit hours which must include:

1. Gerontological Core Courses: (choose four of the following five courses):
    - **NUR 498 Health of Older Persons**
    - **PSY 429 Psychology of Aging**
    - **SOC 316 Sociology of Aging**
    - **SWK 465 Aging and Social Work**
    - **PED 472 Physiology of Aging**
2. Electives: (choose one course from the following):
    - **ANT 280 The Anthropology of Aging and Adulthood**
    - **BIO 168 Biology of Aging**
    - **BIO 468 Theories of Aging**
    - **REL 250 Stages of Life**
    - **REL 251 Perspectives on Death and Dying**

Additional elective courses are offered by various departments in the College of Liberal Arts and Social Sciences and the College of Science, and students are encouraged to consider taking them. For additional information, contact Dr. Beth Ekelman of the Department of Health Sciences, director of the program, at (216) 687-3542.

College of Science

Minors

Minors are available in all departments of the College of Science with the exception of Health Sciences. Students should consider a minor area of study as a means to complement their major program and/or to develop expertise in an additional area of study. For additional information and a listing of requirements, students should contact the department which offers the minor.

Maxine Goodman Levin College of Urban Affairs

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        - **Degree Requirements**
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        - **Environmental Studies**
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        - **Urban Services Administration**
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- Other Academic Programs
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    - **Certificate in Urban Geographic Information Systems**
- More About the College
    - **Albert A. Levin Chair of Urban Studies and Public Service**
    - **Research and Public Service**
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        - **Center for Leadership Development**
        - **Center for Neighborhood Development**
        - **Center for Nonprofit Policy & Practice**
        - **Center for Planning Research & Practice**
        - **Center for Public Management**
        - **Center for Sacred Landmarks**
        - **Great Lakes Environmental Finance Center (GLEFC)**
        - **Northern Ohio Data & Information Service (NODIS)**
        - **Ohio Center for the Advancement of Women in Public Service**
        - **Ruth Ratner Miller Center for Greater Cleveland's Future**
        - **Unger International Center for Local Government Leadership**
        - **The Urban Child Research Center**
- **Go to the Maxine Goodman Levin College of Urban Affairs Web site**

Introduction

Web site: **http://urban.csuohio.edu**

The Maxine Goodman Levin College of Urban Affairs teaches men and women how to work effectively in the urban community. By blending a broad understanding of the urban environment with advanced problem-solving skills, urban affairs graduates qualify for a variety of positions in the public, private, and nonprofit sectors. Research undertaken through the college directly links the university with the concerns of the Cleveland metropolitan area.

Both the instructional and research programs of the college are interdisciplinary in character, drawing on resources and specialized skills throughout the university. The full-time faculty and staff of the college are supplemented by adjunct faculty from community agencies and government.

The college offers the B.A. in Urban Studies, the B.A. in Environmental Studies, the B.A. in Urban Services Administration, and the B.A. in Public Safety Management during both day and evening hours. In addition, the college offers programs in conjunction with the College of Graduate Studies leading to the Master of Science and Doctor of Philosophy degrees in Urban Studies, the Master of Public Administration, the Master of Urban Planning, Design, and Development, and the Master of Environmental Studies. In conjunction with the Cleveland-Marshall College of Law, the college offers dual degree programs leading to the JD/MPA, JD/MUPDD, and the JD/MAES.

The Levin College of Urban Affairs has articulation agreements with Cuyahoga Community College, Lakeland Community College, and Lorain County Community College, which include degree completion programs for graduates of law enforcement, corrections, security administration, police and fire science, nursing, human services, physician assistant, and paralegal studies programs.

Credit for life experience is available to students whose prior learning meets the criteria established by the faculty for academic credit toward the bachelor's degree.

A certificate program in Urban Geographic Information Systems (GIS) is offered by the college in keeping with its mission to "provide academic and professional education, expertise, and research capabilities to enhance the quality of life in urban communities."

College Computing and Technology

In order to provide computer-based academic resources, as well as to promote computer skills necessary for students entering the job market upon graduation, the Levin College maintains two PC-based computer labs containing a total of 50 PCs. The computer labs, located in UR 39 and UR 40, offer software applications for word processing, spreadsheet analysis, database, computer-aided

presentation, geographic information systems (GIS), Internet access, statistical analysis, graphic design, and Web site development. The labs provide access to laser printers for high quality black-and-white output, a color laser printer for GIS maps, and a color scanner for capture of graphics. Any student enrolled in a Levin College program or class receives a computer lab account and may use the labs. In addition, Levin College lab account holders are provided with secure disk space on the networked server for conveniently storing class work, server space for posting personal Web sites, and access to shared drives used by faculty and students. The Interactive Media Lab (IML) is available for production of DVDs, CD-ROMs, video/audio streams and advanced graphics. Digital video/audio capture equipment is available. The IML is equipped with Apple Macintosh computers and a Quick Time streaming server. Levin College instructors frequently use networked instructor computers, computer labs, and/or a laptop cart for students to use during classes.

Financial Assistance

The Levin College of Urban Affairs offers a number of scholarships to undergraduate students. Students interested in scholarships should contact the Levin College for application materials. (Also see the section on **Expenses and Financial Aid** at the beginning of this catalog.)

Office of Student Services

The Levin College's Office of Student Services (OSS) is dedicated to meeting the diverse needs of students. OSS staff has a wide range of responsibilities, including recruitment, registration, and academic advising. Internships, graduate assistantships, and scholarship awards are also coordinated through this office. A variety of career-development aids, such as mentoring, resume review, and job referrals, is available to current students and alumni. Additional information about the OSS is available on the Levin College Web site.

The Levin College's Web site address is **http://urban.csuohio.edu**.

Maxine Goodman Levin College of Urban Affairs

Department of Urban Studies

Undergraduate students may pursue a major in Urban Studies, Environmental Studies, Public Safety Management, or Urban Services Administration leading to the Bachelor of Arts degree. Students in any discipline may elect to pursue a minor in Environmental Studies, Urban Studies, or Urban Services Administration. Graduates of community colleges with degrees in public administration, law enforcement, fire science, paralegal studies, nursing, physician's assistant, and human services may complete their Bachelor of Arts degree through articulation agreements between their college and the Levin College.

Urban Affairs graduates are employed in the public, private, and nonprofit sectors. They are engaged in city planning, program development, community organizing, criminal justice, management, environmental assessment, and economic development. Many graduates have found the urban affairs majors to be a good foundation for advanced study in law, urban planning, or public administration.

- **Environmental Studies**
- **Public Safety Management**
- **Urban Services Administration**
- **Urban Studies**
- **Degree Completion Programs**
- **Urban Studies Minor**
- **Urban Services Administration Minor**
- **Environmental Studies Minor**
- **Certificate in Urban Geographic Information Systems**

Degrees

The Levin College of Urban Affairs offers the following degree programs and majors:
Bachelor of Arts in:

- **Environmental Studies**
- **Public Safety Management**
- **Urban Services Administration**
- **Urban Studies**

Degree Requirements

The faculty of the Levin College awards the Bachelor of Arts degree to students who fulfill the following requirements:

- A minimum of 128 credit hours of academic work, of which 36 credit hours must be upper-division (300- and 400-level) courses
- Achievement of a grade-point average of 2.00 or better
- Completion of the foreign language requirement, if necessary, to remedy a high-school deficiency
- Completion of **ASC 101, Introduction to University Life** (freshmen only)
- Completion of university, college, and major-field requirements

General Education Requirements

University and Levin College requirements will be met upon completion of the courses (or their transfer equivalents) listed below:

- **ASC 101 Introduction to University Life** (freshmen only)
- **ENG 101 English I**
- **UST 102 Professional Writing** *or* **ENG 102 English II**
- **UST 200 Introduction to Urban Studies**
- **UST 202 Cleveland: Past, Present, and Future**
- **UST 240 Democracy and the Bureaucratic City** *or*
  PSC 111 American Government
- **ENV 259 Natural History of the Cleveland Area** *or*
  GEO 100 Introductory Geology *and* **GEO 101 Introductory Geology Laboratory**
- **UST 289 Physical Geography**
  (*or* other approved Natural Science)
- **UST 290 Urban Geography**
- **UST 401 Computer Applications for Urban Research**
- **UST 404 Urban Data Analysis**
- **UST 490 Urban Internship** *or*
  ENV 490 Environmental Internship

In addition to the above specific requirements, students select courses from the following categories to complete their General Education Requirements:

Social Science (not Urban Studies)	3 credits
Math/Logic	6 credits
Arts/Humanities	9 credits
Nonwestern Culture and Civilization	3 credits

Students entering as freshmen must take three designated writing courses over and above ENG 101 and 102. These courses may simultaneously fulfill other university or college requirements. Transfer students (juniors, 60 to 89 credit hours) must complete two writing courses; seniors (at least 90 credit hours,) must complete one course. Transfer students should meet with an adviser for determination of applicability of transfer courses to general education, college, and major-field requirements.

- **Albert A. Levin Chair of Urban Studies and Public Service**

Maxine Goodman Levin College of Urban Affairs

Albert A. Levin Chair of Urban Studies and Public Service

The Albert A. Levin Chair of Urban Studies and Public Service is the first endowed chair established at Cleveland State University. The chair is dedicated to the memory of Albert A. Levin, a Cleveland attorney involved in commercial real estate who was committed to the preservation of the city as a vital center.

The general purpose of the Levin Chair is to attract leading professionals in the field of urban affairs to Cleveland State University. The chair holder is involved with both the community and university, acting as a catalyst in relating the resources of the university to the needs and problems of the urban community.

Activities of the chair holder are directed toward providing diverse public lectures and engaging in significant research and problem-solving with faculty, students, and community groups. Chair holders include: David O. Meeker, deceased (1977-'78), Wolf Von Eckardt, deceased (1978-'79), Sarah Short Austin (1980-'81), Martin Rein, (1981-'82), Paul R. Porter, deceased, and Edgar A. Rose (1982-'84), Wilbur R. Thompson (1984-'86), Phillip L. Clay (1987-'88), David Perry (1989-'90), James Banovetz (1991-'93), Robert J. Waste (1994-'95), Camilla Stivers (1996-'03), Janet Kelly (2003-'05) and Jeffrey L. Brudney (2007-present).

Public Safety Management

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- **PSM Courses**
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Public Safety Management (B.A.)
At-a-Glance

Degree granted: Bachelor of Arts

Hours required for major: 32 to 36

Articulation Agreements: fire technology, law enforcement, corrections, security administration, and emergency management

Advising: designated college adviser: phone (216) 687-2138

Student Organizations: Urban Studies Association

Additional Information:

Internship opportunities are available to all students; scholarships are available to qualified students; all courses in major fields are available in the evening; students with substantial prior learning experience may apply for credit through the Assessment and Accreditation of Prior Learning Experience program.

Opportunities to participate in small seminar groups, research projects, and online courses are available. Students may also participate in the Cooperative Education Program. Students should consult their advisers for assistance in planning course work.

Major-Field Requirements

Public Safety Management majors are required to complete a minimum of 32 credit hours from the following courses:

Core Courses: (20 credit hours)

- **PSM 302 Contemporary Urban Issues**
- **PSM 433 Conflict Management**
- **PSM 451 Public Safety Management**
- **PSM 452 Management of Urban Organizations**
- **PSM 453 Managing Urban Diversity**

Concentrations

1. Management
   Students choose two courses from Group A and two courses from Group B.
   - *Group A:*
     - **COM 357 Principles of Public Relations**
     - **COM 366 Communication and Conflict**
     - **SWK 240 Administration of Justice**
     - **UST 410 Proposal Writing and Program Development**
     - **UST 455 Gender and Leadership**
     - **UST 458 Urban Policy**
     - **UST 459 Budgeting and Policy Analysis**
     - **UST 473 Columbus Seminar**
     - **UST 474 Washington Seminar**
   - *Group B:*
     - **PSC 311 Civil Rights and Civil Liberties**
     - **PSC 321 Political Violence**
     - **SOC 340 Criminology**
     - **SOC 341 Juvenile Delinquency**
     - **SOC 342 Sociology of Law**
     - **SOC 344 U.S. Criminal Justice System**
     - **SOC 345 Social Control**
     - **SOC 346 Corporate and Governmental Deviance**
     - **SWK 342 Prisoners' Rights**

   OR

2. Emergency Preparedness/Homeland Security
   Choose four courses:
   - **PSC 321 Political Violence**
   - **UST 458 Urban Policy**
   - **UST 493 Urban Issues: Emergency Preparedness** *
   - **UST 493 Urban Issues: Environmental Compliance***
   - **UST 493 Urban Issues: Organizational Security** *

   *Credit awarded for completion of specific Continuing Education courses; see adviser for details.

Urban Services Administration

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- **USA Courses**
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Urban Services Administration (B.A.) At-a-Glance

Degree granted: Bachelor of Arts

Hours required for major: 36

Articulation Agreements: human services, community health management

Advising: designated college adviser: phone: (216) 687-2138

Student organizations: Urban Studies Association, Pi Alpha Alpha

Additional Information:

Internship opportunities are available to all students; scholarships are available to qualified students. All courses in major fields are available in the evening; students with substantial prior learning experience may apply for credit through the Assessment and Accreditation of Prior Learning Experience program.

Opportunities to participate in small seminar groups, research projects, and online courses are available. Students may also participate in the Cooperative Education Program. Students should consult their advisers for assistance in planning course work.

Major-Field Requirements

Urban Services Administration majors are required to complete a minimum of 36 credit hours from the following courses, A and B.

A. **Required Courses** (24 credit hours):
   - **UST 302 Contemporary Urban Issues**
   - **USA 380 Urban Family Development**
   - **USA 433 Conflict Management**
   - **USA 452 Management of Urban Organizations**
   - **USA 456 Institutional Development of the Nonprofit Organization**
   - **USA 459 Budgetary Policy**

B. **Electives** (12 credit hours) chosen from:
   - **USA 410 Proposal Writing and Program Evaluation**
   - **UST 416 Cleveland Neighborhoods and Neighborhood Institutions**
   - **USA 453 Managing Urban Diversity**
   - **USA 455 Gender and Leadership**
   - **UST 458 Urban Policy**
   - **SWK 303 Human Behavior and Social Environments**

Urban Services Administration Minor

- **Go to Urban Services Administration Minor information Web site**

Students in any discipline may elect to minor in Urban Studies, Urban Services Administration, or Environmental Studies. The Urban Services Administration minor consists of 20 credit hours.

Urban Services Administration Minor (20 credit hours)

- Required Courses:
  - **UST 200 Introduction to Urban Studies**
  - **USA 380 Urban Family Development**
  - **USA 456 Institutional Development of the Nonprofit Organization**
- Students choose two courses from the following:
  - **UST 302 Contemporary Urban Issues**
  - **USA 433 Conflict Management**
  - **USA 452 Management of Urban Organizations**
  - **USA 455 Gender and Leadership**
  - **UST 458 Urban Policy**
  - **USA 459 Budgetary Policy**

Urban Studies

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Urban Studies (B.A.)
At-a-Glance

Degree granted: Bachelor of Arts

Hours required for major: 36

Hours required for minor: 20

Hours required for GIS Certificate: 16

Concentrations:
urban planning, urban management, environmental policy and management, historic preservation, geographic information systems, and general urban studies

Articulation Agreements:
public management, public safety management, community health management, paralegal studies, and human services

Advising: designated college adviser: phone: 687-2138

Student organizations: Urban Studies Association, Pi Alpha Alpha, American Planning Association

Additional Information:

Internship opportunities are available to all students; the Columbus Seminar and Washington Seminar provide on-site involvement in government in action; scholarships are available to qualified students; all courses in major fields are available in the evening; students with substantial prior learning experience may apply for credit through the Assessment and Accreditation of Prior Learning Experience program.

Opportunities to participate in small seminar groups, research projects, reading courses, and internships are available. Students may also participate in the Cooperative Education Program. Students majoring in Urban Studies should consult their advisers for assistance in planning course work.

Major-Field Requirements

Urban studies majors are required to complete a minimum of 36 credit hours from the following courses, A through C.

A. Required courses:
(15 to 16 credit hours)
   - **UST 300 Economics of Policy Analysis** or
     ECN 202 Principles of Microeconomics
   - **UST 301 Urban Spatial Systems**
   - **UST 302 Contemporary Urban Issues**
   - **UST 489 Advanced Senior Seminar** or
     UST 486 GIS Capstone Seminar

B. Application Courses:
(8 credit hours), chosen from:
   - **UST 410 Proposal Writing and Program Evaluation**
   - **UST 403 Cartography and Graphics**
   - **UST 405 Exploratory Analysis of Local and Regional Competitiveness**
   - **UST 434 Introduction to GIS**
   - **UST 473 Columbus Seminar**
   - **UST 474 Washington Seminar**
   - (Other appropriate courses may be substituted.)

C. Thematic Concentration:
Students select one concentration from 1 through 6 below (12 credit hours) or a Degree Completion program area if transferring with a degree from a community college.
   1. Urban Planning
      Urban planners use their skills in research, design, and program development to effect social goals in cities. The urban planning concentration helps students use the heritage of urban planning to influence urban development. Planners analyze a range of data regarding an area — the economic base, the needs of the people, the available resources, and the effects of change — and make recommendations for action.

- **UST/ART 374 American Architecture**
- **UST/ART 375 Cities and Planning**
- **UST/ART 475 Cleveland: Form and Development of an Urban Environment**
- **UST 416 Cleveland Neighborhoods and Neighborhood Institutions**
- **UST 418 Urban Planning** **Required course*
- **UST 419 Neighborhood Planning**
- **UST 420 Urban Design Seminar** **Required course*
- **UST 433 Conflict Management**
- **UST 436 Urban Sustainability**
- **UST 441 Environmental Planning**
- **UST 463 Housing Analysis**
- **UST 472 Canadian Studies**
- **UST 476 Historic Preservation**
- **UST 478 Cleveland Sacred Landmarks**

2. Urban Management
   Urban managers develop budgets, strategic plans, policies, and programs for a variety of public and private organizations. The urban management concentration gives students basic management techniques and analytic skills necessary to manage effectively in an urban environment.
   - **UST 433 Conflict Management**
   - **UST 449 Comparative Public Administration**
   - **UST 452 Management of Urban Organizations** **Required course*
   - **UST 453 Managing Urban Diversity**
   - **UST 455 Gender and Leadership**
   - **UST 458 Urban Policy**
   - **UST 459 Budgetary Policy** **Required course*
3. Environmental Policy and Management
   This concentration is designed to give students an understanding of the economic, political, and social changes necessary for improving the quality of life in cities. Courses focus on domestic environmental policies and programs, environmental design, and issues related to sustainable development.
   - **BIO 108 Environmental Ecology** or
     EVS 206 Introduction to Environmental Science
     **Choose one (required)*
   - **UST 418 Urban Planning**
   - **UST 433 Conflict Management**
   - **ENV 435 Environmental Policy and Administration** **Required course*
   - **ENV 440 Environment and Human Affairs**
   - **ENV 441 Environmental Planning**
   - **ENV 442 Environmental Finance and Capital Budgeting**
   - **PHY 470 Environmental Physics**
4. Historic Preservation
   This concentration is designed to increase students' awareness of the considerable resources of urban art, culture, history, and ethnicity found in major American cities. They will examine archival information and historic structures, and learn methodologies for preserving those physical aspects of cities that continue to contribute to the quality of life of their citizens.
   - **UST/ART 374 American Architecture**
   - **UST/ART 375 Cities and Planning**
   - **UST/ART 418 Urban Planning**
   - **UST 433 Conflict Management**
   - **UST/ART 475 Cleveland: Form and Development of an Urban Environment**
   - **UST 452 Management of Urban Organizations**
   - **UST 476 Historic Preservation** **Required course*
   - **UST 478 Cleveland Sacred Landmarks** **Required course*
5. Geographic Information Systems
   A Geographic Information System (GIS) is a computerized database management system for capture, storage, retrieval, analysis, and display of spatial (locationally defined) data. GIS is useful to every discipline that utilizes geographic data and is one of the most exciting and rapidly growing computer technologies
   - **UST 403 Cartography and Graphics** **Required Course*; prerequisite: **UST 401** or equivalent
   - **UST 434 Introduction to GIS** **Required Course*
   - **UST 486 GIS Capstone Seminar** **Required Course*
6. General Urban Studies
   Students majoring in Urban Studies who wish to specialize in an area that is not offered as a departmental concentration may use this option to complete their major-field requirements. Students design a three-course interdisciplinary program (12 credit hours) in consultation with their academic adviser and the program director. Examples of general urban studies concentrations include: comparative urban studies, criminal justice, economic

development, and conflict management.

Degree Completion Programs

- **Go to Degree Completion Programs information and transfer guide page**

For community college transfer students with A.A.S. and A.A.B. degrees the following degree completion programs may be completed with technical credits transferred into the Levin College.

Public Management

(For transfer students from public administration programs)

Public Safety Management

(For transfer students from law enforcement, corrections, security administration, police and fire science programs)

Community Health Management

(For transfer students from nursing and physician assistant programs)

Paralegal Studies

(For transfer students from paralegal studies programs)

Human Services

(For transfer students from human services programs)

Urban Studies Minor

Students in any discipline may elect to minor in Urban Studies, Urban Services Administration, or Environmental Studies. The Urban Studies minor consists of 20 credit hours.

- **Go to Urban Studies Minor information Web site**

Urban Studies Minor (20 credit hours)

- Required Courses:
  - **UST 200 Introduction to Urban Studies**
- Students choose two courses from the following:
  - **UST 290 Urban Geography**
  - **UST 300 Economics of Policy Analysis**
  - **UST 301 Urban Spatial Systems**
  - **UST 404 Urban Data Analysis**
  - **UST 433 Conflict Management**
  - **UST 453 Managing Urban Diversity**
- Students choose one concentration from the following (8 credit hours):
  - Urban Planning
    - **UST 418 Introduction to Urban Planning**
    - **UST 420 Urban Design Seminar**
  - Urban Public Management
    - **UST 452 Management of Urban Organizations**
    - **UST 459 Budgetary Policy**
  - Environmental Management
    - **ENV 435 Environmental Policy and Administration**
    - **ENV 441 Environmental Planning**
  - Historic Preservation
    - **UST 476 Historic Preservation**
    - **UST 478 Cleveland Sacred Landmarks**

Certificate in Urban Geographic Information Systems

- **Go to GIS Certificate information Web site**

(16 credit hours)
The Undergraduate GIS Certificate Program consists of the following required four-credit courses:

- **UST 401 Computer Applications for Urban Research** (*or* equivalent)
- **UST 403 Cartography and Graphics**
- **UST 434 Introduction to Geographic Information Systems**
- **UST 486 GIS Capstone Seminar**

It is strongly recommended that students take these classes in the order listed above.
Any student eligible to take undergraduate courses at Cleveland State University may enroll in the GIS courses on a

space-availability basis. Students must have a B-average across all courses and ear n a B or better in UST 486 to earn the certificate.

Maxine Goodman Levin College of Urban Affairs

On this page:

- **Back to College**
- **Urban Studies**
- **Urban Services Administration**
- **Environmental Studies**
- **Go to Levin College Minors Web Site**

Minor Programs

Students in any discipline may elect to minor in Urban Studies, Urban Services Administration, or Environmental Studies.

- **Go to Minors information Web site**

Urban Studies Minor

Urban Studies Minor (20 credit hours)

- Required Courses:
  - **UST 200 Introduction to Urban Studies**
- Students choose two courses from the following:
  - **UST 290 Urban Geography**
  - **UST 300 Economics of Policy Analysis**
  - **UST 301 Urban Spatial Systems**
  - **UST 404 Urban Data Analysis**
  - **UST 433 Conflict Management**
  - **UST 453 Managing Urban Diversity**
- Students choose one concentration from the following (8 credit hours):
  - Urban Planning
    - **UST 418 Introduction to Urban Planning**
    - **UST 420 Urban Design Seminar**
  - Urban Public Management
    - **UST 452 Management of Urban Organizations**
    - **UST 459 Budgetary Policy**
  - Environmental Management
    - **ENV 435 Environmental Policy and Administration**
    - **ENV 441 Environmental Planning**
  - Historic Preservation
    - **UST 476 Historic Preservation**
    - **UST 478 Cleveland Sacred Landmarks**

Urban Services Administration Minor

Urban Services Administration Minor (20 credit hours)

- Required Courses:
  - **UST 200 Introduction to Urban Studies**
  - **USA 380 Urban Family Development**
  - **USA 456 Institutional Development of the Nonprofit Organization**
- Students choose two courses from the following:
  - **UST 302 Contemporary Urban Issues**
  - **USA 433 Conflict Management**
  - **USA 452 Management of Urban Organizations**
  - **USA 455 Gender and Leadership**
  - **UST 458 Urban Policy**
  - **USA 459 Budgetary Policy**

Environmental Studies Minor

Environmental Studies Minor (24 credit hours)

- Required Courses
    - **UST 200 Introduction to Urban Studies**
    - **ENV 435 Environmental Policy and Administration**
- Required Natural Science (choose one)
    - **ENV 259 Natural History of Cleveland**
    - **GEO 100/101 Introduction to Geology and Laboratory**
    - **UST 289 Physical Geography**
- Students choose three courses from the following:
    - **ENV/UST 436 Urban Sustainability**
    - **ENV 440 Environment and Human Affairs**
    - **ENV 441 Environmental Planning**
    - **ENV 442 Environmental Finance and Capital Budgeting**
    - **UST 403 Cartography and Graphics**
    - **UST 434 Introduction to GIS**

Certificate in Urban Geographic Information Systems

Urban Geographic Information Systems (Certificate)

(16 credit hours)

The Undergraduate GIS Certificate Program consists of the following required four-credit courses:

- **UST 401 Computer Applications for Urban Research** (*or* equivalent)
- **UST 403 Cartography and Graphics**
- **UST 434 Introduction to Geographic Information Systems**
- **UST 486 GIS Capstone Seminar**

It is strongly recommended that students take these classes in the order listed above.

Any student eligible to take undergraduate courses at Cleveland State University may enroll in the GIS courses on a space-availability basis. Students must have a B-average across all courses and earn a B or better in UST 486 to earn the certificate.

Maxine Goodman Levin College of Urban Affairs

Albert A. Levin Chair of Urban Studies and Public Service

The Albert A. Levin Chair of Urban Studies and Public Service is the first endowed chair established at Cleveland State University. The chair is dedicated to the memory of Albert A. Levin, a Cleveland attorney involved in commercial real estate who was committed to the preservation of the city as a vital center.

The general purpose of the Levin Chair is to attract leading professionals in the field of urban affairs to Cleveland State University. The chair holder is involved with both the community and university, acting as a catalyst in relating the resources of the university to the needs and problems of the urban community.

Activities of the chair holder are directed toward providing diverse public lectures and engaging in significant research and problem-solving with faculty, students, and community groups. Chair holders include: David O. Meeker, deceased (1977-'78), Wolf Von Eckardt, deceased (1978-'79), Sarah Short Austin (1980-'81), Martin Rein, (1981-'82), Paul R. Porter, deceased, and Edgar A. Rose (1982-'84), Wilbur R. Thompson (1984-'86), Phillip L. Clay (1987-'88), David Perry (1989-'90), James Banovetz (1991-'93), Robert J. Waste (1994-'95), Camilla Stivers (1996-'03), Janet Kelly (2003-'05) and Jeffrey L. Brudney (2007-present).

Maxine Goodman Levin College of Urban Affairs

Research and Public Service

The Maxine Goodman Levin College of Urban Affairs provides applied research and outrea ch services to the community through a number of integrated centers and initiatives. The collective mission of these research centers is to serve as a source for the investigation of issues and challenges facing urban communities and to apply the colle ge's resources to solutions.

Students have opportunities to work with faculty and staff in the research, public ser vice (including training), centers, programs, and related initiatives of the Levin College. These include major programs in economic and neighborhood development, public finance, public management and capacity-building training. These activities support the academi c programs of the Department of Urban Studies by providing opportunities for graduate and undergraduate students to participate in o ngoing research, training, technical assistance, and database development projects. Centers include:

Center for Civic Education

The Center for Civic Education positions the college as a leader in state-of-the-art c ivic education and engagement programs. Through public forums, applied research and outreach services, the center explores key issues and challenges facing Northeast Ohio.

Center for Economic Development

The Center for Economic Development encompasses research and technical assistance acti vities aimed at furthering the development potential of the Cleveland region. Areas of expertise include industrial restructurin g, industry clusters, labor force development, and urban tourism and redevelopment of cities.

Center for Election Integrity

The Center for Election Integrity draws upon the long-standing expertise in electoral and regulatory law, public administration, and civic education of both the Cleveland-Marshall College of Law and the Maxine Goodman Levin C ollege of Urban Affairs. The center provides research, training, consultation, and public education to assist Ohio in becoming a na tional leader in transparent, legal, efficient, and accurate elections.

Center for Housing Research & Policy

The Center for Housing Research & Policy studies critical housing supply and demand is sues. In addition to undertaking a comprehensive inventory and analysis of the region's housing stock and its conditions, the center also identifies and analyzes housing directions and trends useful for neighborhood and regional revitalization.

Center for Leadership Development

The purpose of the center is to create learning programs that fulfill the lifelong lea rning needs of both practicing and aspiring public leaders by developing their personal skills and organizational capacity for leadership . The center integrates theory, applied research, and models in order to advance the public leadership programming of the Levin College of Urban Affairs.

Center for Neighborhood Development

The Center for Neighborhood Development provides assistance to nonprofit, neighborhood -based development organizations, helping them implement a broad range of housing and economic development projects. The center also directs Neighborhood Leadership Cleveland, a leadership development program for grass-roots neighborhood and community leaders.

Center for Nonprofit Policy & Practice

The Center for Nonprofit Policy & Practice works to foster the health of the nonprofit sector in the Northeast Ohio region through training and technical assistance that supports the role of nonprofits in civil society, schola rly and applied research, and undergraduate and graduate education in the leadership and management of nonprofit organizations.

Center for Planning Research & Practice

The Center for Planning Research and Practice was established in April 2006 as a focal point for land use planning in the Levin College of Urban Affairs. The mission of the center is to strengthen the practice of planning in the Ohio Lake Erie basin through research, education, service and technical assistance to local communities and to the planning p rofession.

Center for Public Management

The Center for Public Management provides technical assistance to state, local, and re gional governments and agencies, civic groups, and nonprofit organizations in such areas as strategic planning and fiscal analysis.

Center for Sacred Landmarks

The Center for Sacred Landmarks provides information about Cleveland’s religious struc tures and organizations and their past and present roles in strengthening and maintaining communities within the Cleveland metrop olitan area.

Great Lakes Environmental Finance Center (GLEFC)

The GLEFC is one of nine university centers established by the U.S. Environmental Prot ection Agency to help create sustainable environmental systems in the public and private sectors.

NODIS

The Northern Ohio Data Information Service (NODIS) is a U.S. Census Bureau affiliate a nd provides census and other data resources to the public. It also provides mapping and GIS services, data, and training. Services include standard and customized community profiles, demographic analysis, census tract look-up guides, demographic and environme ntal mapping, geocoding, and database and Web site development. GIS training includes ESRI certified instruction as well as Mapl nfo workshops and customized training. It is one of the Census Bureau's three regional data centers in the state of Ohio.

Ohio Center for the Advancement of Women in Public Service

The Ohio Center for the Advancement of Women in Public Service was founded to promote the advancement of careers of women in public service within the executive, legislative, and judicial branches of government at the national, state, and local levels. Key functions of the center are to produce research on the state of women's careers in public service, identify particular barriers to the movement of women into positions of authority and leadership, and devise strategies to address these barriers.

Ruth Ratner Miller Center for Greater Cleveland's Future

Named in honor of Ruth Ratner Miller's lifelong commitment to and vision for Greater Cleveland, the center utilizes the intellectual capital of the region to develop alternative strategies for the metropolitan area. The center produces information and analysis to advance Greater Cleveland's economic and social future and looks to collaborate with private and nonprofit organizations and governments to drive the growth of the region.

Unger International Center for Local Government Leadership

The Unger Center for Local Government Leadership was established in November 2002 through a grant from Paul and Sonja Unger. The center provides training, educational programs, and consulting in local governance for elected and other government officials in both Ohio and in Croatia. Through the Unger Center, Cleveland State University and the University of Rijeka, Croatia, collaborate on the development of educational and training programs for local government officials and developed the first graduate-level program in public administration in Croatia.

The Urban Child Research Center

The Urban Child Research Center (UCRC) was developed to bring a multidisciplinary approach to addressing risk factors for urban children and youth. The UCRC provides the expertise of academia to the community, using the perspectives of the social and behavioral sciences, education, and healthcare to research issues that affect urban children and families.

Course Descriptions and Index

On this page:

- **General Course Information**
- **Course Numbering System**
- **Course Abbreviations**
- **Course Index by Subject Name**

Courses by Course Code | Courses by Subject Name

General Course Information

Course descriptions in this section are coded as follows:

1. Course abbreviation and number
2. Course title
3. Parenthesized numerals, e.g., (4-0-4), indicate, in order, the classroom hours, the laboratory hours, and the semester credit value of each course

Prerequisites, if any, are indicated at the beginning of the course description. These have been established to assure an adequate and uniform background for students in advanced classes.

Occasionally students may feel they already have the appropriate background for an advanced course because of previous training, transfer credits, or credit by examination. In such cases they must consult the chairperson of the particular department about the advisability of omitting the prerequisite.

The 300- and 400-level courses in the College of Liberal Arts and Social Sciences may not be taken by freshmen except with the written permission of the instructor.

Course Numbering System

100- and 200-Level: Lower Division

300- and 400-Level: Upper Division

500-Level and Higher: Graduate

Course Abbreviations (Course Codes)	Subject Index
A | **B** | **C** | **D** | **E** | **F** | **G** | **H** **I** | **J** | **K** | **L** | **M** | **N** | **O** | **P-Q** **R** | **S** | **T** | **U** | **V** | **W** | **X-Y** | **Z**	**A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** **I** | **J** | **K** | **L** | **M** | **N** | **O** | **P-Q** **R** | **S** | **T** | **U** | **V** | **W** | **X-Y** | **Z**

• **(ACT)** Accounting
• **(AF)** Aerospace Studies
• **(ANT)** Anthropology
• **(ARB)** Arabic
• **(ART)** Art
• **(ASC)** Introduction to University Life
• **(BIO)** Biology
• **(BLW)** Business Law
• **(BST)** Black Studies
• **(BUS)** Business (Special Topics)
• **(CHE)** Chemical Engineering
• **(CHM)** Chemistry
• **(CHN)** Chinese
• **(CIS)** Computer and Information Science
• **(CLM)** Classical and Medieval Studies
• **(COM)** Communication
• **(CSC)** Career Services
• **(CVE)** Civil and Environmental Engineering
• **(DAN)** Dance Program
• (DBA) Doctor of Business Administration (no undergraduate classes)
• **(DRA)** Dramatic Arts
• **(ECE)** Early Childhood Education
• **(ECN)** Economics
• **(EDB)** Education Curriculum and Foundations
• **(EDC)** Multi-Age Instruction
• **(EDL)** Literacy Development and Instruction
• **(EDM)** Middle Childhood Education
• **(EDS)** Secondary Education
• (EDU) Doctoral Education (no undergraduate classes)
• **(EEC)** Electrical and Computer Engineering
• **(EET)** Electronic Engineering Technology
• **(ENF)** English Translations of Foreign Literatures
• **(ENG)** English
• **(ENV)** Environmental Studies
• **(ESC)** Engineering Science
• **(ESE)** Special Education
• **(ESL)** English as a Second Language
• **(EST)** Specialized Study and Field Experiences
• **(EVS)** Environmental Science
• **(FIN)** Finance
• **(FRN)** French
• **(GAD)** General Administration
• **(GEO)** Geology
	• **Accounting**
	• **Aerospace Studies (Air Force ROTC)**
	• **Anthropology**
	• **Arabic**
	• **Art**
	  ◦ **Studio Art**
	  ◦ **Art Education**
	  ◦ **Art History**
	• **Biology**
	• **Black Studies**
	• **Business Law**
	• **Business Special Topics**
	• **Career Services**
	• **Chemical Engineering**
	• **Chemistry**
	• **Chinese**
	• **Civil Engineering**
	• **Classical and Medieval Studies**
	• **Communication**
	(includes Communication Management, Journalism and Promotional Communication, Film and Digital Media courses)
	• **Computer and Information Science**
	  ◦ **Computer Science**
	  ◦ **Information Systems**
	• **Dance**
	• **Dramatic Arts**
	• **Economics**
	• **Education**
	  ◦ **Curriculum and Foundations**
	  ◦ **Specialized Study and Field Experiences**
	  ◦ **Teacher Education**
	  ▪ **Early Childhood Education**
	  ▪ **Literacy Development and Instruction**
	  ▪ **Middle Childhood Education**
	  ▪ **Multi-Age Instruction**
	  ▪ **Secondary Education**
	  ▪ **Special Education**
	• **Electrical and Computer Engineering**
	• **Engineering Science**
	• **Engineering Technology**
	  ◦ **Electronic Engineering Technology**
	  ◦ **General Engineering Technology**
	  ◦ **Math for Engineering Technology**
	  ◦ **Mechanical Engineering Technology**
	• **English**
	  ◦ **Freshman English and Basic Composition**
	  ◦ **Basic Writing Courses**
	  ◦ **English as a Second Language Courses**
	  ◦ **Freshman English Courses**
	  ◦ **Sophomore-Level Courses**
	  ◦ **Upper-Division Courses**
	  ▪ **Courses on Writing and Composition Theory**

Accounting Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To Accounting Major**
- **Back to Course Index**

Faculty

Professors: Jayne Fuglister, Dennis Gaffney, Bruce McClain (Chairperson), David Meeting, Heidi Meier; **Professor Emeritus:** Lawrence Kreiser; **Associate Professors:** Etzmun Rozen, Abba Spero, Peter Poznanski; **Instructors:** Paul Lee, Eric Primuth, Phil Thornton.

Course Descriptions

ACT 221 Introductory Accounting I (3-0-3).
Prerequisite: Sophomore standing. Fundamentals of accounting theory, concepts, and practice; includes the basic structure of accounting and accounting as it is used as a basis for business decisions, measuring business income; introduces the concept of accounting systems and control.

ACT 222 Introductory Accounting II (3-0-3). Prerequisite: **ACT 221**. A continuation of the fundamentals of accounting theory, concepts, and practice pertaining to various forms of business organizations, such as partnerships and corporations; measurement and control of costs as viewed in a departmental operation and interpretation of financial data and statements.

ACT 321 Cost Accounting I (3-0-3). Prerequisites: **ACT 222**, junior standing. Introduces the basics of cost (managerial) accounting which apply to service, merchandising, and manufacturing firms. Covers job order and process costing, cost-volume-profit analysis, activity-based costing, variable costing, budgeting, standard costing systems and variance analysis, decision making using managerial accounting information, and related topics in addition to analytical and communications skills.

ACT 331 Intermediate Accounting I (4-0-4). Prerequisites: **ACT 222**, junior standing. Focuses financial accounting and the statements of financial accounting concepts; reviews the accounting cycle, development of income statement, statement of retained earnings, the balance sheet, and time value of money concepts; accounting for current financial assets, inventory, plant assets, and intangible assets; accounting for current and long-term liabilities.

ACT 332 Intermediate Accounting II (4-0-4). Prerequisite: **ACT 331**. Continuation of financial accounting concepts covered in **ACT 331**; covers accounting for equity, investments, leases, taxes, pensions, and accounting changes; earnings per share; statement of cash flows and related topics.

ACT 361 Tax I (3-0-3). Prerequisites: **ACT 222**, junior standing. Comprehensive examination of federal income taxation of individuals; emphasis on tax planning and recognition of tax problems.

ACT 388 Accounting Systems (3-0-3). Prerequisites: **IST 203**, **ACT 331**. Business systems as viewed by the accounting professions: system analysis, flow-charting, and system design from a range of firms with a minimum of electronic and mechanical devices to firms employing the most sophisticated types of electronic data-processing equipment; emphasis on business system design to accumulate and communicate information to officials controlling the activities of the enterprise.

ACT 422 Cost Accounting II (3-0-3). Prerequisite: **ACT 321**. Continuation of ACT 321; covers capital budgeting, just-in-time inventory concepts, throughput accounting, performance evaluation, transfer pricing, balanced scorecard, and related topics.

ACT 441 Advanced Accounting (4-0-4). Prerequisite: **ACT 332**. Parent and subsidiary accounting; accounting aspects of business combinations and consolidations; accounting for estates, trusts, and insolvency; multinational accounting; and governmental and nonprofit accounting.

ACT 451 Auditing (3-0-3). Prerequisites: **ACT 332**, **ACT 388**. Audit approach; planning and procedure; treatment of adjustments and irregularities; preparing worksheets and final statements.

ACT 453 Information Systems Auditing (3-0-3). Prerequisite: **ACT 451**. Problems of accuracy and control in computer-oriented applications; changing audit techniques, especially loss of traditional audit trail opportunities; control problems of direct access and real-time systems.

ACT 455 Internal Auditing (3-0-3). Prerequisite: **ACT 222**. The philosophy and practice of modern internal auditing techniques with emphasis on providing managers with definitive information about situations which might interfere with the accomplishment of the organization's goals and with feedback concerning extraordinary accomplishments.

ACT 456 Advanced Auditing Topics (3-0-3). Prerequisite: **ACT 451** or **ACT 455** or equivalent. The advanced topics in auditing include, but are not limited to, the use of quantitative methods, sampling methods, statistical sampling, analytical procedures, operational auditing, employee and management fraud, and audit administrative issues.

ACT 460 International Accounting (3-0-3). Prerequisite: **ACT 222**. A broad-based course that provides an understanding of the international dimensions of accounting. The course will include topics in financial and managerial accounting, auditing and, to a lesser extent, taxation and transfer pricing issues. In addition to the mechanics, comparative accounting systems and the process of the harmonization of accounting standards will be discussed. An examination of current international accounting literature will augment specific topic discussions.

ACT 462 Tax II (3-0-3). Prerequisite: **ACT 361**. Income taxation of corporations, partnerships, estates, and trusts; federal, estate and gift taxes; state and local taxes; methodology of researching complex tax problems.

ACT 484 Governmental and Institutional Accounting (3-0-3). Prerequisites: **ACT 222**, junior standing. Accounting principles, standards, and procedures applicable to enterprises operated not-for-profit; covers governmental units, institutions such as universities and hospitals, charitable organizations, fraternal organizations, religious groups, and clubs.

ACT 490 Professional Internship (1 to 3 credits). Prerequisites: **ACT 331**, junior standing, permission of chairperson. Three

months of supervised practical experience with a public accounting firm or the accounting department of an industrial firm. Term report required.

ACT 493 Special Topics in Accounting (1 to 3 credits). Prerequisites: Senior standing and permission of Instructor and Department Chair. Explores current issues or special topics in accounting. Topics and course requirements will be announced by the department.

ACT 496 Independent Study (1 to 3 credits).
Prerequisites: Senior standing, approval of sponsoring faculty and department chairperson. Flexible course content/structure to enable qualified students to pursue areas of interest and competency; opportunity for independent study, field research, or other special assignments.

ACT 499 Honors Thesis in Accounting (3 credits).
Prerequisite: Restricted to senior Accounting honors students. The Honors Thesis requires the honors student to conduct a piece of original research in accounting under the supervision of an Accounting faculty member. The thesis will be presented orally and submitted as a written report.

Air Force ROTC (Aerospace Studies) Courses

On this page:

- **Course Descriptions**
- **To Aerospace Studies Program**
- **Back to Course Index**

Course Descriptions

AF 101 The Foundation of the U.S. Air Force I (1 hour). Survey course providing an introduction to the U.S. Air Force and ROTC. Officership and military customs and courtesies are discussed. Foundations of Air Force communications are covered.

AF 102 The Foundation of the U.S. Air Force II (1 hour). Survey course looking at the origin and organization of the Air Force. Selected topics contributing to an understanding of the Air Force are covered.

AF 103, 104, 203, 204, 303, 304, 403, 404 Leadership Laboratory (1 hour each). An instruction program that prepares an individual to undertake the broad range of technical tasks associated with military leadership and defense management.

AF 201 Evolution of U.S. Air Force Air and Space Power I (1 hour). Survey course to examine air and space power from a historical perspective. Course covers early flight and World War I to the Korean War and ICBMs.

AF 202 Evolution of U.S. Air Force Air and Space Power II (1 hour). Survey course to examine air and space power from a historical perspective. Course covers period from the Vietnam War to the Global War on Terror and the Air Force today.

AF 301 Leadership Studies I (3 hours).
Study basic leadership skills, including problem solving, team building, motivation, group conflict management, and situational leadership, as well as communication skills.

AF 302 Leadership Studies II (3 hours).
Study advanced skills in leadership, including effective supervision, counseling, authority, responsibility, accountability, and ethical and moral leadership in the military.

AF 401 Defense Studies/Preparation for Active Duty I (3 hours). This course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine.

AF 402 Defense Studies/Preparation for Active Duty II (3 hours). Topics focus on preparation for military service after commissioning and current issues affecting the Air Force way of life.

Classes to Register for Each Term

Freshman Fall Term: AF 101 (1), **AF 103** (1)
Freshman Spring Term: AF 102 (1), **AF 104** (1)

Sophomore Fall Term: AF 201 (1), **AF 203** (1)
Sophomore Spring Term: AF 202 (1), **AF 204** (1)

Junior Fall Term: AF 301 (3), **AF 303** (1)
Junior Spring Term: AF 302 (3), **AF 304** (1)

Senior Fall Term: AF 401 (3), **AF 403** (1)
Senior Spring Term: AF 402 (3), **AF 404** (1)

Freshmen and sophomores take 2 hours of ROTC courses each semester.

Juniors and seniors take 4 hours of ROTC courses each semester.

Anthropology Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To Anthropology Major**
- **Back to Course Index**

Faculty

Professor Emeritus: Willis E. Sibley; **Associate Professors:** Paul L. Aspelin (Interim Chairperson), Peter S. Dunham, Barbara G. Hoffman, Robert P. Mensforth, Ronald A. Reminick; **Associate Professor Emerita:** Lauren A. Corwin; **Associate Professor Emeritus:** John W. Lallo; **Term Assistant Professor:** Marshall C. Lewis; **Visiting Instructor:** Phillip J. Wanyerka.

Course Descriptions

ANT 100 Human Diversity (4-0-4). *Formerly "Introduction to Anthropology."* Exploration of broad-ranging issues common to all human beings and the contributions of anthropology to understanding those issues from a cross-cultural perspective. Each topic is explored in depth from the perspectives of all four subfields of anthropology: archaeology, physical anthropology, cultural anthropology, and linguistic anthropology. *Human Diversity*, *Social Science*.

ANT 101 Human Biocultural Evolution (4-0-4).
Outline of evolutionary theory and human evolution from the earliest primates to modern humans; the development of culture from the beginning of tool use and tool manufacture up to the agricultural revolution and the rise of civilization; consideration of human biological and cultural diversity. *Social Science*.

ANT 102 Study of Culture (4-0-4).
Introduction to the ways in which anthropologists study living cultures and languages and the foundation for further study in cultural and linguistic anthropology. Materials from a number of the world's cultures and languages are presented through lectures, demonstrations, videos, and films. *Social Science*.

ANT 103 Ancient Civilizations (4-0-4).
Introduction to the prehistoric archaeology of Old World civilizations, with a focus on Mesopotamia, the Indus Valley, Egypt, and the British Isles; course includes an examination of current research methods in archaeology as well as contemporary interpretations and theories in the field. *Social Science*.

ANT 120 Introduction to Language and Linguistics (4-0-4). This course provides an introduction to the properties of human languages and to their systematic study in the field of linguistics. It provides the groundwork for future studies of language and communication in a broad range of disciplines: linguistics, modern languages, ESL, communication, sociolinguistics, and anthropological linguistics. It is assumed that students have had no prior course work or exposure to linguistics and will begin with the basic assumptions that are shared by those who study language from a variety of perspectives. Cross-listed with **LIN 120**. *Social Science*.

ANT 150 Comparative American Slavery (4-0-4).
This course takes an anthropological approach to the comparative analysis of slavery across cultural, historical and geographical backgrounds. The course specifically seeks to expand our understanding of the experiences of slavery in North Amercia involving the European/American exploitation of Africans and Native Americans by looking at other socio-historical situations of slavery in Africa, Asia, and the pre-Columbian Americas for comparison and contrast. *Human Diversity*, *Social Science*, *African-American Experience*.

ANT 153 Introduction to African Cultures (4-0-4).
Introduction to the multiple cultures of contemporary Africa from a number of different perspectives: African intellectuals, Africanist scholars, and ordinary Africans. A video series on the history, lifestyles, religions, politics, environment, and multicultural conflicts of the continent is balanced with the perspectives of other Africans and Africanists on similar topics as represented in readings, discussions, and ethnographic films and videos. Black Studies course. Foreign Culture course. *Nonwestern Culture and Civilization.*

ANT 171 Native Civilizations of the Americas (4-0-4). Introduction to the major cultural achievements of the New World, with an examination and comparison of cultural development in four separate geographical areas: the Mississippi and Ohio Valley regions (e.g., the Adena, Hopewell, and Mississippian cultures), the American Southwest (e.g., the Pueblo and Anasazi), Mesoamerica (e.g., the Olmee, Maya, and Aztecs), and the Andes of South America (e.g., the Moche, Nazca, and Inka). *Nonwestern Culture and Civilization*, *Social Science*.

ANT 210 Introduction to Native American Studies (4-0-4). Course provides an introductory overview of the interdisciplinary field of Native American Studies. It is required for the minor in Native American studies and as such, provides the intellectual foundation for further work in the field. The course explores the complexity and diversity of the contemporary Native American experience, through the anthropological, cultural, historical, and literary sources of First Nations Peoples in North, Middle, and South America. *Human Diversity.*

ANT 221 Culture and Human Sexuality (3-0-3).
An examination of the importance of culture for understanding human sexuality, especially as it affects health. Topics covered include biological, social, emotional, cognitive, and spiritual issues related to sexuality. Contemporary political, legal, and health issues are discussed critically. Cross-listed with **HSC 201**.

ANT 227 Power, Authority & Society in Nonwestern Communities (4-0-4). Examination of the ways selected groups of Asian, African, and Latin American societies organize themselves with respect to power and authority to cope with common social problems. Attention given to how change in political organization takes place. Cross-listed with **HIS**/**PSC 227**. *Nonwestern Culture and Civilization*, *Social Science*.

ANT 260 Language, Culture and Society (4-0-4).
Overview of the study of language in its cultural and social contexts. Topics may include the formation and maintenance of speech communities, variation of language within and across speech communities, how languages change in contemporary social contexts, the range of uses of language in social context, the verbal arts, oral folklore, and the development of writing systems. This course does not presume a background in either linguistics or anthropology. Cross-listed with **LIN 260**. *Social Science*.

ANT 270 African-American Culture (4-0-4).
Focus on the social and cultural ecology of contemporary black communities in America; includes an examination of how cultural history shapes present activities, attitudes, and beliefs. Specific topics include family organization, sex roles, child development, and social and religious movements. Black Studies course. *African-American Experience*, *Human Diversity*.

ANT 276 Anthropology and Science Fiction (4-0-4). Anthropology and science fiction both seek to expand our vision by examining either parts of our world that we know little about (in the case of anthropology) or other worlds that exist in our fantasies or imaginations (in the case of science fiction). This course examines how each proceeds in this attempt through an examination of their interrelationships in subject, vision, and manner. The course involves reading and analysis of text and exegesis in both the "anthropology of science fiction" (i.e., the analysis of science fiction using anthropology) and the "science fiction of anthropology" (i.e., the creation of science fiction involving anthropological subjects and material).

ANT 280 Anthropology of Adulthood and Aging (4-0-4). The nature and processes of adulthood and aging are examined in a cross-cultural perspective. Examination of differences in culture, ethnicity, environment, and ecology as they influence the experience of growing old in selected modern and traditional societies around the world. Elective course for Gerontological Studies. *Human Diversity*.

ANT 293 Topics in Anthropology (4-0-4).
Topics reflect material of special or timely interest, such as food and culture, multimedia software, Mesoamerican art, expressive culture, the anthropology of music, forensics, and human anatomy. May be repeated up to 12 credit hours when topics vary.

ANT 301 Biological Anthropology (4-0-4). Prerequisite: **ANT 101** Human Biocultural Evolution or equivalent. Emphasis on two fundamental areas of human biological evolution: human population genetics and reproductive fitness and the adaptive significance of contemporary human biological variation. Topics explore the extent to which environmental factors such as geographic location, climate, attitude, diet and disease influence the growth, development, nutritional status, and demographic characteristics of extant human groups.

ANT 302 Archaeology (4-0-4). Prerequisite: **ANT 101**
Human Biocultural Evolution. A detailed consideration of archaeology, its principal methods and issues today. Major themes include the nature of archaeology, its history, and field and laboratory techniques, along with ethical and other topics, such as looting, the conflict between archaeologists and native peoples over human remains, and graduate and career opportunities in the field. Emphasis is placed on illustrating these subjects via their application to real archaeological problems and data.

ANT 303 Cultural Anthropology (4-0-4). Prerequisite: **ANT 102** Study of Culture. Overview of the developmental history of method and theory in social and cultural anthropology. Topics include structural-functionalism, symbolic anthropology, cultural materialism, structuralism, and post-modernism. The methodology of ethnographic fieldwork is also addressed in detail.

ANT 304 Linguistic Anthropology (4-0-4). Prerequisite: **ANT 102** Study of Culture. Introduction to the study of language, culture, and society. Topics include principles of linguistic analysis (phonetics, phonology, morphology, syntax, and semantics), the ethnography of speaking, quantitative sociolinguistics, language contact and change, language and expressive culture, and language and gender.

ANT 305 Quantitative Anthropology (3-2-4).
Sampling, research methods, and practical applications of parametric and non-parametric statistical procedures to anthropological analysis.

ANT 310 Human Osteology (4-0-4).
Introduction to the structure and function of the human musculoskeletal system. Familiarization with methods used in the excavation, identification, analysis, and preservation of prehistoric human skeletal remains. Includes consideration of anthropological vs. forensic perspectives, goals, and applications. Lecture content and lab exercises focus on quantitative and qualitative methods used to analyze growth and development of the skeleton, age and sex estimation, stature reconstruction, race determination, paleodemography, paleopathology, and the methods of assessing nutritional status of earlier human groups.

ANT 311 Medical Anthropology (4-0-4). Prerequisite: **ANT 101** Human Biocultural Evolution or equivalent. Anthropological approaches to the study of disease in Western and Nonwestern societies. Emphasis on beliefs in the supernatural, folk medicine, scientific vs. non-scientific medicine, and modern approaches to epidemiology.

ANT 312 Primate Behavior (4-0-4). Prerequisite: **ANT 101** Human Biocultural Evolution. Focus on the marked diversity and adaptive significance of primate behavior in nature. Dietary patterns and feeding strategies, locomotor adaptations, reproductive behaviors, territoriality, social organization, predator pressure, interspecific competition, parental investment, play behavior and learning, and primate intelligence are explored within the framework of evolutionary ecology, zoology, and geographic distribution. The extent to which primate behavior studies shed light on the evolution of human behavior is also examined.

ANT 313 Human Paleontology (4-0-4). Prerequisite: **ANT 101** Human Biocultural Evolution or **ANT 310** Human Osteology. Fossil evidence of hominid evolution and the development of contemporary human origin theories are explored in a historical, ecological, and geochronological framework. Lectures consider benefits and liabilities of analogistic, deterministic, and gender-oriented models posited to explain the evolution of behavioral and anatomical characteristics unique to humans. Laboratory exercises acquaint students with methods used to identify, analyze, and interpret key morphological and behavioral trail complexes which serve as the basis for reconstructing the phylogeny of the Hominidae.

ANT 320 Anthropology of Religion (4-0-4). Prerequisite: **ANT 102** Study of Culture OR junior or senior standing. Study of the universal components and structures of the institutions of religion and religious experience. Comparison of the diversity of religions in the traditional and modern milieux.

ANT 321 Psychological Anthropology (4-0-4). Prerequisite: **ANT 102** Study of Culture or equivalent OR junior or senior standing. Anthropological approach to the study of personality, emphasizing comparison of social and cultural factors that produce culturally variable attitudes and beliefs about the nature of the social, environmental, and supernatural worlds of the individual. Topics include the structure and dynamics of symbolic expression, ecologies of stability and stress, and types of adaptive and maladaptive coping processes in the contexts of social change and modernization.

ANT 322 Writing About Culture (4-0-4). Prerequisites: **ENG 101** and **ENG 102** and one course in anthropology. Reading and analysis of first-person accounts, scientific narratives, ethnographies, ethnologies, and anthropological fiction. Examination of how various writing styles affect communication among and between social scientists. *Writing*.

ANT 323 Visual Anthropology (4-0-4). Students are urged to take **ANT 100** Human Diversity or **ANT 102** Study of Culture before taking this course. Introduction to the production and use of ethnographic videos and films in anthropological research and teaching. Course explores both theory and application; theory topics include ethics of production, issues of perspective, adequacy of representation, authorship and authority. Theoretical knowledge is applied in the editing of an ethnographic video from the instructor's field footage.

ANT 324 Anthropology of Gender (4-0-4). Students are urged to take **ANT 100** Human Diversity or **ANT 102** Study of Culture before

taking this course. Exploration of the cultural construction of gender in a variety of human societies from an anthropological perspective. Includes an examination of the different ways in which males and females are thought of, treated, and expected to behave in different cultural settings, taking into account aspects of gender systems such as division of labor, stratification, gender roles, and their variation throughout the life cycle. Women's Studies course. *Human Diversity*.

ANT 331 North American Prehistory (4-0-4).
Overview of the pre-contact archaeology of North America (i.e., the United States and Canada). Topics include the peopling of the New World, hunter-gatherers, human settlement of the Arctic, agriculturalists, and regional developments from New England and the Midwest to the Southwest and West Coast. Ample illustration is provided from the rich body of archaeological discoveries across the continent. Special attention is given to important, controversial, and recent finds, such as “Kennewick Man.”

ANT 332 World Prehistory (4-0-4).
Survey of global archaeology, from the original appearance of human beings to the emergence of recorded history. This course reviews the great cultural traditions of the world and their major accomplishments, with examples from China, the Indus Valley, Mesopotamia, Egypt, Sub-Saharan Africa, Middle America, the Andes and Oceania, among others. Topics range from the peopling of the world and what happened to the Neanderthals to the development of agriculture and the rise of the state.

ANT 336 Lab Methods in Archaeology (4-0-4).
An introduction to laboratory methods used in archaeological research. Topics may include preparing finds, dating them, classifying materials, compositional analysis, drafting maps, photography, conservation methods, or other techniques that comprise the modern battery of tools used by archaeologists to make sense of and preserve their discoveries. Extensive use is made of examples; emphasis is on practical application.

ANT 337 Field Methods in Archaeology (4-0-4).
An introduction to archaeological field techniques. Topics may include reconnaissance and surveying methods, such as technical mapping, site locating (global positioning system/GPS), establishing a site grid, and satellite or aerial image interpretation. Excavation techniques may be covered, from test and grid units to trenches and tunnels, as well as proper recording of field data. Extensive use is made of examples; emphasis is on practical application, with special attention to overcoming the typical complications and difficulties that emerge during fieldwork.

ANT 340 Phonology (4-0-4). Prerequisites: **ANT 304** Linguistic Anthropology, **ANT 120** or **LIN 120**, Introduction to Language and Linguistics or **ENG 311** or **LIN 311**, Elements of Linguistics. Introduction to the scientific study of the sound systems of the world's living languages. Includes discussion of the basics of phonetic transcription and phonemic analysis and the development of formal models in phonology. Topics include articulatory and acoustic phonetics, the phoneme, phonological rules and representations, non-linear models, harmony processes, prosodic morphology, and sound symbolism. Cross-listed with **LIN 340**.

ANT 341 Morphology and Syntax (4-0-4). Prerequisites: **ANT 304** Linguistic Anthropology, **ANT 120** or **LIN 120**, Introduction to Language and Linguistics or **ENG 311** or **LIN 311**, Elements of Linguistics. Introduction to the description and analysis of word formation processes and sentence structure from a cross-linguistic perspective. Instruction in basic morphemic analysis and constituent testing using data drawn from languages outside the Indo-European family. Also includes an introduction to typological analysis in the study of morpho-syntax. Cross-listed with **LIN 341**.

ANT 342 Languages in Contact (4-0-4).
Introduction to the study of linguistic responses to culture contact in a variety of socio-historical contexts. Topics include language and trade, language and colonialism, pidgins and pidginization, creoles and creolization, dialect contact and the formation of koines. Cross-listed with **LIN 342**/**MLA 342**.

ANT 343 Language and Gender (4-0-4). Students are urged to take **ANT 100** Human Diversity or **ANT 102** Study of Culture before taking this course. Exploration of the connections between language and gender systems through a variety of theoretical perspectives, methodologies, and findings in recent research drawn from anthropological, linguistic, and psychological studies. Women's Studies course. *Human Diversity*.

ANT 344 Sociolinguistics (4-0-4). Prerequisite: **ANT 304** Linguistic Anthropology. An introduction to theory and method in sociolinguistics with an examination of both the quantitative and the qualitative paradigms. Quantitative sociolinguistics, also known as variation theory, correlates linguistic variation with social structure relying on the statistical treatment of data. The qualitative paradigm also examines language variation in relation to social structure but has been more traditionally concerned with language use in social context in non-Western societies.

ANT 345 Language and Meaning (4-0-4). Prerequisites: **ANT/LIN 120** or **ENG/LIN 311** or permission of the instructor. This course familiarizes students with a broad spectrum of key concepts, issues, and analytical tools in the study of meaning in natural language, with an emphasis on non-formalist approaches. The focus is on how linguists approach the study of natural language semantics, particularly as it influences and organizes morphosyntactic structure. To serve as a background to the course, important complementary viewpoints are briefly discussed, including traditional semantic concerns of philosophers of language, as well as semiotic perspectives on meaning and communication. *Effective Spring 2008.*

ANT 347 Maya Hieroglyphic Writing I (4-0-4).
Introduction to Classic Maya writing and texts from a linguistic and anthropological perspective. Students study the origins and functions of writing in Ancient Mesoamerica, examine the relationship of spoken languages to the script, and learn to decipher, analyze and interpret Maya hieroglyphic texts for information of general anthropological and linguistic interest such as dynastic history, social organization, ritual, cosmology and belief systems. Cross-listed with **LIN**/**MLA 347**.

ANT 348 Folklore and Folklife (4-0-4). Prerequisite: **ANT 102** Study of Culture. The course is an overview of the study of folklore and folklife from its beginnings in the 19th century when it emerged as an eclectic, interdisciplinary field. Following Geertz's view of culture as an assemblage of "texts," the course will examine a complex tapestry of artifactual representations including oral narrative, speech, myth, performance, drama, art, architecture, music, dance and clothing.

ANT 349 American Indian Languages (4-0-4). Prerequisite: **ANT 304** or **ENG 311**. The objective of this course is to increase appreciation of American Indian languages understood in their various cultural contexts. It presents the language families and languages of North America and it examines the structure and functions of American Indian poetry, song, narrative, conversation, prayer and other forms of figurative language.

ANT 351 Native North Americans (4-0-4).
Overview of the native North American peoples, their past and present conditions, origins, cultural variety, and their interaction with European, American, and Canadian cultures. Foreign Culture course. *Nonwestern Culture and Civilization.*

ANT 352 Native South Americans (4-0-4).
Overview of the indigenous cultures of South America using case studies to represent major culture areas, traditions, and questions of

anthropological concern. Foreign Culture course. *Nonwestern Culture and Civilization*.

ANT 353 Cultures of Africa (4-0-4).
Introduction to the multiple cultures of contemporary Africa from the perspectives of African intellectuals, Africanist scholars, and ordinary Africans. Mazrui's video series on the history, lifestyles, religions, politics, environment, and multicultural conflicts of the continent is balanced against the perspectives of other Africans and Africanists on similar topics through texts, lectures, class discussions, and ethnographic films. Black Studies course. Foreign Culture course. *Nonwestern Culture and Civilization*, *Writing*.

ANT 354 Cultures of Oceania (4-0-4).
Introduction to the extremely diverse cultural areas of Polynesia, Micronesia, Melanesia, and Australia. Topics include trade and exchange; gender relations and sexuality; culture contact and change; indigenous land rights; totemism; political authority, language distribution and use; warfare and headhunting; expressive arts, and socialization. Foreign Culture course. *Nonwestern Culture and Civilization*.

ANT 356 Ethiopia (4-0-4).
Survey of the land, ecologies, peoples and cultures of Ethiopia, examining ancient and traditional ways of life as well as contemporary issues and developments. Emphasis on Abyssinia. Black Studies course. Foreign Culture course. *Nonwestern Culture and Civilization*.

ANT 357 Peoples and Cultures of Mesoamerica (4-0-4). This course provides an overview of the peoples and Cultures of Mexico and Central America that comprise the Mesoamerican culture area. Course begins with an examination of pre-Columbian civilizations and the Colonial Period before focusing on contemporary indigenous peoples, their institutions and relationships to the modern state. Using rich ethnographic accounts of contemporary Nahautl and Mayan communities we will examine gender, religious systems and world view, transformations of the economy, language and identity, and political oppression, culminating in the ongoing revitalization movements currently taking place as exemplified by the Zapatistas in Chiapas and Guatemalan Mayans. *Nonwestern Culture and Civilization*.

ANT 358 Caribbean Societies (4-0-4).
Survey of the historical and contemporary societies of the Caribbean socio-cultural region, with primary focus on the non-Hispanic regions of the Caribbean (those areas whose colonial history is with England, France, Sweden and the Netherlands). Assumes no prior knowledge of anthropology. Foreign Culture course. *Nonwestern Culture and Civilization*.

ANT 365 The Asian American Experience (4-0-4).
This course deals with developing a better understanding of the evolution and settlement patterns, religious and social institutions, and help-seeking patterns of Asian Americans, one of the fastest growing visible minority groups in our society. The course will focus on Indian Americans and Chinese Americans, the two largest Asian American groups in Northeast Ohio. Other Asian groups, such as Filipinos, Japanese, Korean, Vietnamese, and other Southeastern and South Asian communities will also be highlighted, with special emphasis on Asian communities in Northeast Ohio. Cross-listed with **SWK 355**. *Human Diversity*.

ANT 366 Native Peoples of the Southwest (4-0-4).
An in-depth examination of the Southwest culture area of Native North America found primarily within Arizona and New Mexico and parts of Colorado and Nevada. The course focuses on the ethnography of the region, with a brief overview of the archaeological basis of contemporary settlement. While not strictly enforced, it is strongly recommended that students either have taken or are concurrently enrolled in **ANT 351** Native North Americans. *Nonwestern Culture and Civilization*.

ANT 375 Ethnographic Field Methods (4-0-4).
Instruction in the methods of ethnographic observation, analysis, and description, with exposure to different research methods in ethnography and sociolinguistics. Topics covered include elicitation, social network analysis, participant observation, consultants, ethics, data management, and ethnographic writing.

ANT 385 The Anthropology of Tourism (4-0-4). Prerequisite: **ANT 102** Study of Culture or equivalent. An introduction to the study of tourism from the perspective of anthropology. Although the anthropology of tourism is a relatively new field of social science inquiry, its objects of study—travel, cross-cultural interaction, and culture change—are as old as the discipline of anthropology itself. Topics covered include defining tourism, typologies of tourism and tourists, the theory of tourism, tourist arts and crafts, ethnicity and heritage in tourism, sustainable tourism, eco-tourism, the social and cultural impacts of tourism, and managing tourism. *Writing*.

ANT 393 Area Studies in Archaeology (4-0-4). Prerequisite: **ANT 101** Human Biocultural Evolution. Exploration of the principal developments, primary explanations, and main issues in the study of the prehistory and/or historical archaeology of a particular area, region, or place. Similar to area studies in anthropology courses, with emphasis on the past culture of a target area rather than its contemporary culture. Mesoamerica, the Maya area, and Belize have been covered in recent years; other areas may also be covered.

ANT 394 Area Studies in Anthropology (4-0-4).
Comparative study of cultures and societies of major world areas. May be repeated up to 12 credit hours by studying different areas. Courses on Asia (China, India, Indonesia) are Asian Studies courses.

ANT 435 Archaeology Field School (4-0-4).
Prerequisite: At least one course in anthropology. Through participation in archaeological fieldwork, students learn the techniques of archaeological field reconnaissance and survey by assisting in the exploration and mapping of actual archaeological remains. They may also participate in excavation and the recording and processing of archaeological data. This course builds on the established archaeological tradition that full mastery of field methods is best conveyed through hands-on experience; emphasis is on overcoming the typical complications and difficulties that emerge during fieldwork. May be conducted at sites in different locations; some sites may be outside of Northeast Ohio.

ANT 440 Southwest Field Experience (6-0-6). Prerequisites: **ANT 366** Native Peoples of the Southwest and permission of instructor. This course provides the curricular foundations for the supervised field experience in anthropology, a program that is offered annually in the second six-week summer session. There is a two-week orientation and preparation on campus followed by a four-week stay in the Southwest (New Mexico and Arizona), where students experience tourism in Native American communities.

ANT 447 Maya Hieroglyphic Writing II (4-0-4). Prerequisite: **ANT 347**. Building on the basic knowledge and skills learned in ANT 347, students will decipher increasingly more challenging texts in order to reach a more sophisticated understanding of Maya hieroglyphic decipherment, and its implications for understanding and revising the history of Classic Maya civilization. Cross-listed with **LIN/MLA 447**.

ANT 453 Advanced Studies in African Cultures (4-0-4). Prerequisite: **ANT 153** or **ANT 353** or permission of the instructor. Seminar-style class devoted to advanced comparative study of African cultures with specific attention to culture change in the areas of social organization, kinship, economics, ways of knowing, religions, art, music, gender roles, political systems, power and representation. Students conduct individual and group research projects on how African societies are interweaving their cultural traditions with new adaptations in the face of global pressures, influences, technologies, and trends. *Nonwestern Culture and*

Civilization.

ANT 493 Topics in Anthropology (4-0-4).
Topics reflect material of special or timely interest, such as food and culture, multimedia software, Mesoamerican art, expressive culture, the anthropology of music, folk voices, forensics, and human anatomy. May be repeated up to 12 credit hours when topics vary. Designated titles may fulfill the College of Liberal Arts and Social Sciences or College of Science Foreign Culture requirement.

ANT 494 Advanced Area Studies in Anthropology (4-0-4). Prerequisites: **ANT 102** Study of Culture and appropriate area studies course **ANT 351** through **ANT 358** or **ANT 366**). In-depth study of specific questions of anthropological concern in a particular cultural area. Topic and area may vary with each offering. May be repeated up to 12 credit hours with different topic/area.

ANT 495 Senior Seminar in Anthropology (4-0-4).
Prerequisites: Anthropology major with senior standing and permission of instructor. This course provides majors in anthropology with a capstone experience in the discipline. The course has the explicit goal of refining the analytic and expository skills that are introduced and developed in the core courses for the major. Students will also have the opportunity to apply their anthropological training and knowledge in a project that focuses on a “real world” problem that is taken from the contemporary world.

ANT 496 Independent Study in Anthropology (1-4 credits). Prerequisite: Junior standing. Written permission of instructor and chairperson is required for registration. Independent student research on selected advanced topics in anthropology under the direction of the faculty. May be repeated up to 8 credit hours when topics vary.

Arabic Courses

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- **Course Descriptions**
- **To Modern Languages List**
- **Back to Course Index**

Faculty

Associate Professor: Philippa Brown Yin (Chairperson); **Assistant Professors:** Hebat El-Attar, Abed Tayyara.

Course Descriptions

Students with native experience of Arabic may not enroll for credit in 100-level courses in Arabic.

All students with training or experience in Arabic other than a previous course in that language at Cleveland State must consult a counselor in the Department of Modern Languages for assistance in deciding where to enter the Arabic sequence. Failure to seek counseling may result in schedule shifts during the first week of class.

ARB 101, 102 Arabic I, II (4-2-5).
Prerequisite: ARB 101: None; ARB 102: Completion of ARB 101 with a "C" or better or permission of instructor. Essentials of Arabic usage; practice in hearing, speaking, reading, and writing. Lab fee.

ARB 193, 293, 393, 493 Special Topics in Arabic (1 to 4 credits). Prerequisite: Permission of instructor. Study of a particular topic in Arabic language, literature, or civilization. May be repeated with a change in topic. *Nonwestern Culture and Civilization*.

ARB 194, 294, 394, 494 Special Topics in Arabic (Writing) (1 to 4 credits). Prerequisite: Permission of instructor. Study of a particular topic in Arabic language, literature, or civilization. May be repeated with a change in topic. *Nonwestern Culture and Civilization*, *Writing*.

ARB 201 Intermediate Arabic I (4-0-4). Prerequisite: **ARB 102** or permission of instructor. Focus on culture and language as well as on improving listening, speaking, reading, and writing abilities. Includes language laboratory component in Media Lab.

ARB 202 Intermediate Arabic II (4-0-4). Prerequisite: **ARB 201** or permission of instructor. Ongoing review and expansion of skills development through reading short narratives, conversation and media. Readings are drawn from literary texts and articles on contemporary Middle Eastern society. Includes language laboratory component in Media Lab.

ARB 274 Introduction to the Middle East (4-0-4).
This course is designed to introduce students to the history, religious diversity, political systems, economy, and culture of the Middle East. The course includes a brief examination of ancient Middle Eastern civilizations and its history to the world. The course also examines important historical junctures influencing the region today. It will include the contents, similarities, and diversities of Middle Eastern culture. The course examines three monotheistic religions and how Middle Easterners vary widely in their religious beliefs. It explores how this religious variance impacts Middle Eastern culture. The course introduces students to multiple aspects of the arts. Cross-listed with **HIS 274** and **PSC 274**. *Nonwestern Culture and Civilization*.

ARB 371 Survey of Arabic Literature and Culture (4-0-4). This course introduces students to important works representative of Arabic literature and its progression from the earliest recorded sources to the present. Literary works will be discussed in their cultural and historical context, and will include a variety of genres. Texts will be taught in English translation. *Nonwestern Culture and Civilization*; *Writing*.

Art Courses

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Faculty

Professors: Thomas E. Donaldson, Kenneth Nevadomi; **Associate Professors:** Samantha Baskind, Kathy Curnow, Irina A. Koukhanova, George Mauersberger (Chairperson), Richard D. Schneider, Jennifer Visocky-O'Grady; **Assistant Professors:** Qian Li, Russell Revock; **Instructor:** Oksun Lee; **Gallery Director:** Robert Thurmer.

Course Descriptions

Note: Nonrefundable materials fees are required for all studio courses and are paid with tuition.

Studio Art | **Art Education** | **Art History**

Studio Art

ART 102 Introduction to Two-Dimensional Art and Design (2-6-4). Beginning study of basic principles of two-dimensional visual organization and skills. Includes line, value, texture, color, shape, and other elements of form as they relate to two-dimensional art and design. Prerequisite for all subsequent two-dimensional studio art courses and all studio courses above 200.

ART 103 Introduction to Three-Dimensional Art and Design (2-6-4). Beginning study of basic principles of three-dimensional visual organization and skills. Includes line, value, texture, color, shape, and other elements of form as they relate to three-dimensional art and design. Prerequisite for all subsequent three-dimensional studio art courses and all studio courses above 200.

ART 211 Drawing I (2-6-4). Prerequisite: **ART 102**. A beginning study of design principles, materials, and techniques of drawing.

ART 221 Painting I (2-6-4). Prerequisite: **ART 102**. A beginning study of design principles, materials, and techniques of painting.

ART 226 Sculpture I (2-6-4). Prerequisite: **ART 103**. A beginning study of design principles and techniques of three-dimensional visual expression with practical experience in metal casting. Materials fee.

ART 231 Printmaking I (2-6-4). Prerequisite: **ART 102**. A beginning study of design principles and techniques of selected printmaking processes. Materials fee.

ART 232 Photography I (2-6-4). Prerequisite: **ART 102**. A beginning study of black-and-white photography and darkroom techniques. Materials fee.

ART 242 Introduction to Typographic Principles and Design (2-6-4). Prerequisite: **ART 102**. Introduction to design aesthetics and the visual organization of information. Students will focus on learning typographic and aesthetic fundamentals and then applying these principles to two-dimensional design collateral with specific themes. Current design theory and practical application will also be studied in conjunction with project development.

ART 244 Introduction to Macintosh (2-6-4). Prerequisite: **ART 102**. Introduction to computer design using a Macintosh platform. The course will begin by developing an understanding of the current Macintosh operating system, and with a brief introduction of technical issues related to using the computer for design purposes. The remainder of the course will be devoted to studying the industry standard page layout, illustration, and photo alteration software (QuarkXpress, Adobe Illustrator, and Adobe Photoshop). Materials fee.

ART 246 Ceramics I (2-6-4). Prerequisite: **ART 103**. A beginning study of design principles and use of ceramic materials in solving problems of three-dimensional form using hand building methods and the potter's wheel. Materials fee.

ART 293 Special Topics in Studio Art (2 -6-4). Prerequisite: **ART 102** or **ART 103**, depending on course. For students at a beginning level of expertise. Intensive study of subject or topic to be announced in advance. May be repeated for credit. Materials fee for some sections.

ART 311 Drawing II (2-6-4). Prerequisites: **ART 103** and **ART 211**. Continued investigation into the concepts, materials, and techniques of drawing.

ART 321 Painting II (2-6-4). Prerequisites: **ART 103** and **ART 221**. Continued investigation into the concepts, materials, and techniques of painting.

ART 326 Sculpture II (2-6-4). Prerequisites: **ART 102** and **ART 226**. Investigation of three-dimensional form leading to the development of individual styles and the use of various materials. Materials fee.

ART 331 Printmaking II (2-6-4). Prerequisites: **ART 103** and **ART 231**. Continued investigation of concepts, materials, and techniques in printmaking. Materials fee.

ART 332 Photography II (2-6-4). Prerequisites: **ART 103** and **ART 232**. Continued study of black-and-white darkroom techniques and concepts of photographic imagery. Materials fee.

ART 344 Advanced Raster-Image Development (2-6-4). Prerequisites: **ART 103**, **ART 242** and **ART 244**. Comprehensive instruction on the creation of raster-based imagery using photo-manipulation software (Adobe Photoshop). Technical topics include advanced image manipulation, color issues, file management, cross-program compatibility, and production and end-usage concerns. Raster image-based design and illustration issues also explored. Materials fee.

ART 345 Advanced Vector-Image Development (2-6-4). Prerequisites: **ART 103**, **ART 242** and **ART 244**. Comprehensive instruction on the creation of vector-based imagery using illustration software (Adobe Illustrator). Technical topics include object-oriented image creation and manipulation, color issues, file management, cross-program compatibility, and production and end-usage concerns. Vector image-based design and illustration issues also explored. Materials fee.

ART 346 Ceramics II (2-6-4). Prerequisites: **ART 102** and **ART 246**. Continuation of formal development through the use of the potter's wheel; emphasis on decoration and glaze application. Materials fee.

ART 405 Introduction to Museum Studies – Exhibition Planning and Design (2-6-4). Prerequisites: **ART 102**, 200-level art-history course. This course provides a practical overview of the concepts and practices of exhibition curating (as opposed to collections curating). The course focuses on planning and design of exhibitions. Topics include thematic development, the purpose of the exhibition, presentation philosophies, presentation aesthetics, audience analysis, facility analysis, conceptual organization, spatial organization, traffic flow, information flow, art handling, installation techniques, lighting, graphics, publications, publicity, security, and the "whole" exhibition experience.

ART 411 Drawing III (2-6-4). Prerequisite: **ART 311**. An investigation into more advanced approaches to drawing. May be repeated an additional 16 hours.

ART 421 Painting III (2-6-4). Prerequisite: **ART 321**. An investigation into more advanced approaches to painting. May be repeated an additional 16 hours.

ART 426 Sculpture III (2-6-4). Prerequisite: **ART 326**. Emphasis on the development of individual approaches to three-dimensional form by extensive investigation of specified project areas. May be repeated an additional 16 hours. Materials fee.

ART 431 Printmaking III (2-6-4). Prerequisite: **ART 331**. An investigation into more advanced approaches to printmaking. May be repeated an additional 16 hours. Materials fee.

ART 432 Photography III (2-6-4). Prerequisite: **ART 332**. Advanced study of photographic techniques and concepts, with emphasis on development of a personal style. May be repeated an additional 16 hours. Materials fee.

ART 444 Advanced Typography and Design (2-6-4). Prerequisites: **ART 344.** Comprehensive instruction on the creation of design collateral using page layout and typesetting software (InDesign). Focus on print-based media. Students will study the creation and production of a design piece, from initial production schedules and creative brainstorming and problem-solving techniques to aesthetic development and modes of output. Focus on technical, aesthetic, and communication issues. Professionalism stressed. Materials fee.

ART 445 Introduction to Digital Media (4-6-4). Prerequisites: **ART 344**. A broad introduction to digital media, specifically that which is used on the World Wide Web. Students will study information and interface design as well as analyze the structure and content of interactive media. Projects will involve the development and implementation of site architecture in conjunction with aesthetic considerations specific to the Web. Materials fee.

ART 446 Ceramics III (2-6-4). Prerequisite: **ART 346**. Continuation of formal development on an advanced level through the use of the potter's wheel and glaze calculation. May be repeated an additional 16 hours. Materials fee.

ART 493 Special Topics in Studio Art (2-6-4).
Prerequisite: For students of advanced level of expertise who have completed a 200-level studio art course. Check semester course schedule footnote for topics. Intensive study of subject or topic to be announced in advance. May be repeated for credit. Materials fee for some sections.

ART 496 Independent Studies in Studio Art and Design (0-2-1 or 1-3-2 or 1-5-3 or 2-6-4). Prerequisite: Written permission of instructor, 8 credit hours at advanced Level III in field of choice. Studio projects in advanced work. Sections are: (1) graphic design, (2) ceramics, (3) drawing, (4) painting, (5) photography, (6) printmaking, (7) sculpture, (8) other (4 credits), and (9) other (2 credits). May be repeated for credit. Materials fee for some sections.

Art Education

ART 341 Valuing Processes in the Visual Arts (4-0-4).
An exploration of art criticism and aesthetics as part of a comprehensive art education program with practical application in a PreK-12 setting.

ART 393 Special Topics in Art Education (4-0-4 or 2-6-4). Intensive study of a relatively narrow subject or topic to be announced in advance.

ART 396 Independent Reading and Research: Art Education (2 or 4 credit hours). Prerequisite: Written permission of instructor. Study of an art education topic of special interest to the particular student. Subject and plan of study to be decided jointly by student and instructor. May be repeated for credit.

ART 441 Art in Social and Vocational Contexts (4-2-4).
An introduction to philosophical and historical issues in art education with an emphasis on alternative venues for teaching art to varied populations. Requires 20 hours on-site observation.

Art History

ART 150 Introduction to Art History and Appreciation (4-0-4). Study of the visual arts from the observer's point of view, with emphasis on the awareness of historical and critical functions. *Arts and Humanities*.

ART 252 Introduction to Early Western Art (4-0-4).
The history of Western art and crafts from the prehistoric era through the Middle Ages. Classical and Medieval Studies course. Foreign Culture course. *Arts and Humanities*, *Western Culture and Civilization*.

ART 253 Introduction to Western Art Since 1400 (4-0-4). The history of Western art and crafts from the Renaissance to the present. Foreign Culture course. *Arts and Humanities*, *Western Culture and Civilization*.

ART 253H Introduction to Western Art Since 1400 - Honors (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. The history of Western art and crafts from the Renaissance to the present. This course focuses upon two major themes. The first is the human figure as it is expressed through various media. The second is the influence of art and science upon each other. Students will complete writing assignments outside of class that demonstrate their ability to analyze and synthesize materials related to the subject matter of the course. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

ART 256 History of Photography (4-0-4).
A general survey of the history of photography from the middle of the 19th century to the present day. *Arts and Humanities*.

ART 281 Introduction to Far Eastern Art (4-0-4). The history of the art and crafts of China and Japan. Asian Studies course. Foreign Culture course. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

ART 286 Introduction to African Art (4-0-4). The history of the art and crafts of Black Africa. Black Studies course. Foreign Culture course. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

ART 356 Gothic Art (4-0-4).
The history of the art and crafts of Western Europe in the later Middle Ages. Classical and Medieval Studies course. Foreign Culture course. *Western Culture and Civilization*.

ART 363 The Early Renaissance in Italy (4-0-4).
The history of art and architecture in Italy from the rise of the city-state to the voyages of Christopher Columbus, from Giotto to Leonardo da Vinci. Foreign Culture course. *Western Culture and Civilization*.

ART 364 The High Renaissance and Mannerism in Italy (4-0-4). The history of art and architecture in Italy during the time of Leonardo da Vinci, Michelangelo, Raphael and their followers. Foreign Culture course. *Western Culture and Civilization*.

ART 365 The Renaissance in Northern Europe (4-0-4). The history of art in the court of the dukes of Flanders and of the Kings of France, from Pucelle to Bruegel. *Western Culture and Civilization*.

ART 370 American Visual Culture (4-0-4).
A consideration of American visual culture from the late 19th through the 20th centuries, focusing on the interrelationship between artists and/or movement in traditional art media with the visual forms of American popular and mass culture. These widely divergent forms of visual culture will be considered within their appropriate social and political contexts. *Western Culture and Civilization*, *Writing*.

ART 371 Art in the 19th Century (4-0-4).
A survey of the major social and artistic developments of the 19th century across several national cultures - France, Germany, England, the United States, Italy - focusing on particular themes including romanticism and landscape painting; the deterioration of the distinction between "high" and "low" art forms; the transformation of Paris into the first modem metropolis; and the place of women, the "Orient," and the "primitive" within 19th-century art and society. Foreign Culture course. *Western Culture and Civilization*, *Writing*.

ART 372 Art in the 20th Century (4-0-4).
The survey of 20th-century modernism and visual culture in its historical context, focusing on particular national cultures - France, the United States, Mexico, Soviet Russia, Germany, Holland, Italy, England - and themes including the concept of the avant-garde, the place of the gendered body, the development of differing modes of abstraction, art censorship from fascism to the present, the role of photography and mechanization, and the rise of the postmodern. Foreign Culture course. *Western Culture and Civilization*; *Writing*.

ART 373 On the Edge: Art Since 1968 (4-0-4).
Study of international directions in visual culture since 1968 with emphasis on the development of new media forms such as performance, conceptualism, video, film, installation, and the expansion of older ones such as photography. New contexts for exhibition and the increasing importance of race, class, gender, and sexual identity within a global culture will also be discussed. *Western Culture and Civilization*.

ART 374 American Architecture (4-0-4).
An historical analysis of the built environment from the 17th century to the present. Various styles and types of buildings will be related to time and place, defining and identifying central characteristics, social function, cultural expression, technology, and changes in architectural practice. American Studies course. Cross-listed with **UST 374**. *Western Culture and Civilization*.

ART 375 Cities and Planning (4-0-4).
What man has done to form his communal environment since ancient times; social, symbolic, functional, biotechnical domains as generators of architecture and urban planning; value systems in environmental change; policies, plans, and design proposals as the record of the humanized environment. Urban Studies course. Cross-listed with **UST 375**. *Western Culture and Civilization*; *Writing*.

ART 376 Architectural History: Great Monuments of Western Architecture in the Urban Context (4-0-4). An inquiry into the forms and meaning of architecture from antiquity to the present. *Western Culture and Civilization*, *Writing*.

ART 383 Indian Art (4-0-4). The history of Indian art from the neolithic period through the late medieval period. Asian Studies course. Foreign Culture course. *Nonwestern Culture and Civilization*, *Writing*.

ART 384 Buddhist Sculpture (4-0-4).
An in-depth study of Buddhist sculpture in India and its spread to Tibet, China and Japan with special emphasis on iconography and stylistic development. Foreign Culture course. *Nonwestern Culture and Civilization*, *Writing*.

ART 385 The Hindu Temple (4-0-4).
A historical study of the development of the Hindu temple beginning with the simple flat-roofed Gupta structure and culminating with the multi-structured temple complexes of the 17th and18th centuries. Architectural form and iconographical program will be equally stressed as well as Indo-Aryan (northern) and Dravidian (southern) styles of temple construction. Asian Studies course. Foreign Culture course. *Nonwestern Culture and Civilization*, *Writing*.

ART 386 Regional Art in Africa (4-0-4).
This course will examine the historical arts of a selected region of Africa from the archaeological past to contemporary movements. The course may be repeated for credit when the treated region changes. The changing areas to be treated are Western Sudan, Upper Guinea Coast, Lower Guinea Coast, Central Africa, and South and East Africa. May be repeated for credit. Foreign Culture course. *Nonwestern Culture and Civilization*, *Writing*.

ART 388 African-American Art (4-0-4). The history of African-American art from Colonial times to the present. Black Studies course. *African-American Experience*, *Human Diversity*.

ART 390 Internship (1 to 8 credit hours).
Prerequisite: Written permission of supervising instructor. Independent learning involving theory and practice in a specific area of art, such as art education, art conservation, museology, and graphic or product design. Approved internships are usually with an external museum or an appropriate institution or commercial enterprise. Grading is on an S/U basis. This course cannot be substituted for other art courses in the degree requirements.

ART 394 Special Topics in Art History (4-0-4).
Study of a broad subject or topic in Western or non-Western art to be announced in advance.

ART 475 Cleveland: Form and Development of an Urban Environment (4-0-4). Workshop which examines aspects of visual communication relative to the city. Urban Studies course. Cross-listed with **UST 475**. *Writing*.

ART 495 Art Seminar (4-0-4).
Prerequisite: Written permission of instructor. Close examination of a topic to be selected jointly by instructor and students through research and discussion, with emphasis on artists at work in their milieu. May be repeated for credit. *Writing*.

ART 497 Independent Reading and Research: Art History (1 to 4 credit hours). Prerequisite: Written permission of instructor. Study of a topic of special interest to the particular student; subject and plan of study to be decided jointly by student and instructor. May be repeated for credit.

ART 499 Honors Thesis (4 to 8 credit hours).
Prerequisite: Admission to the Honors Program. Directed research under supervision, culminating in the writing of a thesis required of honors students in art history and art education.

Biology Courses

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- **Course Descriptions**
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Faculty

Biology is part of the Department of Biological, Geological, and Environmental Sciences.

Professors:
R. Jeffrey Dean (Chair), F. Paul Doerder, Michael A. Gates, Donald G. Lindmark, Tobili Y. Sam-Yellowe, Mary Jane Saunders, Harry van Keulen; **Professors Emeriti:** Peter C. Baker, Lorry J. Brenner, Ronald L. Clise, Kenneth M. Hoff; **Associate Professors:** A. Ralph Gibson, Michael Kalafatis, Anton A. Komar, Robert A. Krebs, Barbara K. Modney, Tony Sahley, B. Michael Walton, Crystal M. Weyman, Julie A. Wolin; **Associate Professors Emeriti:**
Richard C. Dickerman, Randall J. Gee, Madeline M. Hall, Sally Lewis, Jerome B. Senturia, James M. Willard; **Assistant Professors:** G. Valentin Börner, Roman Kondratov, Bibo Li, Barsanjit Mazumder, Girish Shukla, Jacqueline Vitali; **Adjunct Faculty:** Marina P. Antoch, Kathleen L. Berkner, Manjunatha Bhat, Martha K. Cathcart, Miles M. Coburn, Clemencia Colmenares, Paul E. DiCorleto, Paul L. Fox, Karen Gerken, Yohannes Haile-Selassie, Joe Hannibal, Jaharul Haque, Corinne Hartwell, Stanley Hazen, Philip Howe, Donald W. Jacobsen, Jeffrey Johansen, Sadashiva Karnik, Joe B. Keiper, Andrea Ladd, Andrew Larner, Xiaoxia Li, Ronald J. Midura, Christine S. Moravec, Daniel R. Petit, Jun Qin, Hugh R. Quinn, Miguel E. Quinones-Mateu, Neal S. Rote, Michael J. Ryan, Robert H. Silverman, Roy L. Silverstein, Jonathon D. Smith, George Stark, Dennis J. Stuehr, Vincent Tuohy.

Course Descriptions

Note: The 100-level biology courses are intended primarily for non-science majors. Courses with "Human" in their titles discuss biological principles using humans as the main illustrative example. BIO 107 may be combined with BIO 102, 104, 106, or 168 to partially satisfy the university's requirement for Natural Science with Laboratory. BIO 109 may be combined with BIO 100, 108, 110, or 112 to partially satisfy the requirement for Natural Science with Laboratory.

BIO 100 The Living World (3-0-3). An introduction to the biology of all major groups of living things, including microbial, unicellular, and parasitic organisms, as well as multicellular plants, animals, and fungi. The fundamental concepts of evolutionary and functional biology will be introduced through a systematic survey of the varieties of life. *Natural Science*. **BIO 109** may be combined with BIO 100 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 102 Human Genetics, Reproduction, and Development (3-0-3). Genetics and development of humans including application of genetic technology to humans. *Natural Science*. **BIO 107** may be combined with BIO 102 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 104 The Brain (3-0-3).
Introduction to the nervous system and the brain. Discussion of the function of brain cells, sensory systems, motor systems, and higher functioning in mammalian systems. Normal and abnormal functions of the human brain are emphasized. *Natural Science*. **BIO 107** may be combined with BIO 104 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 104H Neuroscience: Exploring the Brain (3-0-3). Prerequisite: Honors standing or permission of university Honors Program. Corequisite: **BIO 105H.**
This honors course will survey the organization and function of the mammalian brain, emphasizing the human brain when possible. The nervous system is analyzed throughout a range of levels from the molecular basis of neuronal functioning to the system levels that govern behavior and cognition. The course will emphasize fundamental principles of neural functioning and the experimental methods by which that information is obtained. *Natural Science*.

BIO 105H Neuroscience Laboratory (0-2-1). Prerequisite: Honors standing or permission of university Honors Program. Corequisite: **BIO 104H.**
Selected experiments to reinforce concepts covered in BIO 104H. Exercises range from the classical demonstration of the ionic basis of the action potential to psychosocial experiments. *Natural Science Laboratory*.

BIO 106 Human Biology in Health and Disease (3-0-3). Introduction to biological principles. Discussion of cell structure, cell function, and physiology of digestion, circulation, excretion, and coordination in normal and disease states. *Natural Science*. **BIO 107** may be combined with BIO 106 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 107 Human Biology Laboratory (1-2-2).
Laboratory study of diverse aspects of human biology. Topics include cell structure and function, human anatomy, physiology, disease, genetics, reproduction, development, and aging. *Natural Science Laboratory*.

BIO 108 Environmental Ecology (3-0-3). Concepts of ecology as they relate to environmental problems in today's world. *This course is for non-science majors. Natural Science*. **BIO 109** may be combined with BIO 108 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 109 Biological Diversity Laboratory (1-2-2).
Laboratory study of past and present biological diversity, the importance and value of diversity, and the threats posed by human populations to the maintenance of biological diversity. *Natural Science Laboratory*.

BIO 110 Plants and Civilization (3-0-3). The nature and uses of plants; the effects of plants on civilization and vice versa. *Natural Science*. **BIO 109** may be combined with BIO 110 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 112 Biology of the Dinosaurs (3-0-3).
Dinosaurs are used to illustrate fundamental concepts of biology. Topics to be discussed will include methods of classification, evolutionary mechanisms including extinction, the process of fossilization, a survey of major dinosaur groups, and biological principles of biomechanics, physiology, and behavior. Current theories and controversies concerning dinosaur biology will be evaluated. One or two class meetings will be held at the Cleveland Museum of Natural History. *Natural Science*. **BIO 109** may be combined with BIO 112 to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 130 Biology of Human Diversity (3-0-3).
Prerequisite: Completion of General Education requirements in the areas of English Composition and of Mathematics and Logic. The purpose of this course is to provide a scientific consideration of the validity of the concept of human races. Sufficient background information in biology will be introduced to cover the essential ideas involved in measuring human biological diversity. All students must write an 8- to 12-page research paper on some scientific aspect of human biological variation. *Natural Science*.

BIO 168 Biology of Aging (3-0-3).
The various biological theories of aging, together with a review of the fundamental concepts of cell biology and physiology on which these concepts are based. *Natural Science*. **BIO 107** may be combined with **BIO 168** to partially satisfy the requirement for *Natural Science with Laboratory*.

BIO 171 Summer Local Flora (2-4-4).
Study and identification of representative species, genera, and families of mainly local vascular plants found in summer. Lecture, laboratory, and field work. *Natural Science with Laboratory*.

BIO 173 Spring Local Flora (2-4-4).
Study and identification of representative species, genera, and families of mainly local vascular plants found in spring. Lecture, laboratory, and field work. *Natural Science with Laboratory*.

BIO 193 Special Topics in Biology (3-0-3).
Study of a particular topic in biology. Topics to be announced in the course schedule each semester. May be repeated for credit with change of topic.

BIO 194 Special Topics in Biology (4-0-4).
Study of a particular topic in biology. Topics to be announced in the course schedule each semester. May be repeated for credit with change of topic.

Note: Courses numbered 200 and above are intended primarily for Biology majors, Health Science majors, Nursing majors, and other science majors. Courses numbered 260 to 272 do not fulfill the requirements for the Biology major, but may be used for the biology minor.

BIO 200 Introductory Biology I (3-0-3). Corequisite: **BIO 201**. An introduction to modern biology covering basic principles of molecular and cell biology, immunity, genetics, evolution, and biological classification. *Natural Science*.

BIO 201 Introductory Biology Laboratory I (0-2-1). Corequisite: **BIO 200**. Selected exercises designed to reinforce concepts covered in **BIO 200**. *Natural Science Laboratory*.

BIO 202 Introductory Biology II (3-0-3). Recommended prerequisite: **BIO 200**. Corequisite: **BIO 203**. An introduction to modern biology including a survey of biological diversity, anatomy and physiology of plants and animals, principles of ecology, and human impact on ecosystems. *Natural Science*.

BIO 203 Introductory Biology Laboratory II (0-2-1). Corequisite: **BIO 202**. Selected exercises designed to reinforce concepts covered in **BIO 202**. *Natural Science Laboratory*.

BIO 260 Human Genetics (3-0-3). Prerequisite: **BIO 200**. Discussion of basic Mendelian and biochemical genetics with emphasis on chromosomal and molecular disorders.

BIO 262 Introductory Pharmacology (3-0-3). Prerequisites: **BIO 266** and **268**. The mechanism of action of various addictive, prescription, and over-the-counter drugs and their effects on the nervous, cardiovascular, and excretory systems. Antibiotics and antineoplastic drugs also will be discussed.

BIO 264 Introductory Microbiology (3-0-3). Prerequisite: Upper-level high-school biology or **BIO 106**. Corequisite: **BIO 265**. Principles of microbiology, and immunology, including pathogenic microorganisms, and viruses. *Natural Science*.

BIO 265 Introductory Microbiology Laboratory (0-2-1). Corequisite: **BIO 264**. Selected exercises designed to reinforce concepts covered in **BIO 264**. *Natural Science Laboratory*.

BIO 266 Human Anatomy and Physiology I (3-0-3). Prerequisite: Upper-level high-school biology, or **BIO 106**, or **HED 210**. *[Note: Effective Fall 2008: Prerequisite:Upper-level high-school biology, or **BIO 106**, or **BIO 200**, or **HED 210**.]* Corequisite: **BIO 267**. Systems approach to human anatomy and physiology. *Natural Science*.

BIO 267 Human Anatomy and Physiology I Laboratory (0-2-1). Corequisite: **BIO 266**. Selected exercises designed to reinforce concepts covered in **BIO 266**. *Natural Science Laboratory*.

BIO 268 Human Anatomy and Physiology II (3-0-3). Prerequisite: **BIO 266**. Corequisite: **BIO 269**. Continuation of **BIO 266**. Systems approach to human anatomy and physiology. *Natural Science*.

BIO 269 Human Anatomy and Physiology II Laboratory (0-2-1). Corequisite: **BIO 268**. Selected exercises designed to reinforce concepts covered in **BIO 268**. *Natural Science Laboratory*.

BIO 270 Human Nutrition (3-0-3). Prerequisite: **BIO 106**, or **200**, or **268**. An introduction to human nutrition, including nutritional requirements throughout life, nutrient value, metabolic requirements, nutrition and disease, malnutrition and undernourishment, dieting supplements, and dietary fads.

BIO 272 Human Physiology (3-0-3). Prerequisites: **BIO 268** and **CHM 251**. Advanced undergraduate study of human organ physiology, with emphasis on homeostasis, along with nervous and hormonal regulation of various organ systems. Considerations of cellular and molecular interactions emphasized.

BIO 281 UT-PHPR-1000 Orientation (1-0-1).
Prerequisite: Admission to CSU-UT Pharmacy Partnership. Lectures and small group discussions including FYI subjects, and introductory elements of pharmacy professional culture. This course is for students in the CSU-UT Pharmacy Partnership. Contact the program adviser for details (216-875-9791). *(Note: This course will be deleted effective Fall 2008.)*

BIO 282 UT-PHPR-2010 Introduction to Patient Care (2-0-2). Corequisite: **BIO 283**. Introduction to the primary dimensions of the profession of pharmacy with an emphasis on the pharmacist's responsibility to assure that drug therapy is used appropriately to improve patient outcomes. This course is for students in the CSU-UT Pharmacy Partnership. Contact the program adviser for details (216-875-9791). *(Note: This course will be deleted effective Fall 2008.)*

BIO 283 UT-PHPR-2600 Functional Anatomy and Pathophysiology I (4-0-4). Prerequisites: **BIO 200**/ 201 and 202/203; **CHM 261**/ 266 and 262/267. Corequisite: second-year standing. A study of functional anatomy, physiology and pathophysiology to serve as background for the understanding of the action of drugs. This course is for students in the CSU-UT Pharmacy Partnership. Contact the program adviser for details (216-875-9791). *(Note: This course will be deleted effective Fall 2008.)*

BIO 284 UT-PHPR-2620 Functional Anatomy and Pathophysiology II (4-0-4). Prerequisite: **BIO 283**. A continuation of **BIO 283**. This course is for students in the CSU-UT Pharmacy Partnership. Contact the program adviser for details (216-875-9791). *(Note: This course will be deleted effective Fall 2008.)*

BIO 285 Pharmacy Colloquium (1-0-1).
Prerequisite: permission of Pharmacy Partnership adviser. This seminar course will feature invited speakers, CSU and University of Toledo faculty, presenting topics related to the practice, science, and business of pharmacy. This course is for students in the CSU-UT Pharmacy Partnership. Contact the program adviser (216-875-9791) for details. *(Note: This course will be deleted effective Fall 2008.)*

BIO 300 Plant Biology (3-0-3). Prerequisites: **BIO 200** and **202**. Corequisite: **BIO 301**. Plant diversity, structure, function, and evolution.

BIO 301 Plant Biology Laboratory (0-2-1). Corequisite: **BIO 300**. Selected exercises designed to reinforce concepts covered in **BIO 300**.

BIO 302 Animal Biology (3-0-3). Prerequisites: **BIO 200** and **202**. Corequisite: **BIO 303**. Animal diversity, structure, function, and evolution.

BIO 303 Animal Biology Laboratory (0-2-1). Corequisite: **BIO 302**. Selected exercises designed to reinforce concepts covered in **BIO 302**.

BIO 304 Population Biology and Evolution (3-0-3). Prerequisites: **BIO 200** and **202**. Corequisite: **BIO 305**. Population genetics, evolutionary processes, population ecology, and biogeography.

BIO 305 Population Biology and Evolution Laboratory (0-2-1). Corequisite: **BIO 304**. Selected exercises designed to reinforce concepts covered in **BIO 304**.

BIO 306 Biochemistry and Molecular Biology (4-0-4). Prerequisites: **BIO 200**, **202**, and **CHM 331**. Discussion of the essential concepts underlying biochemistry. Topics include chemical concepts, structure of biological molecules, catalysis, metabolic regulation, and molecular genetics.

BIO 308 Cell Biology (3-0-3). Prerequisites: **BIO 200**, **202** and **CHM 331**. Structure, function, and biogenesis of cellular organelles and the cytoskeleton. Discussions of development at the cellular level, inter- and intra-cellular signaling, and regulation of the cell cycle.

BIO 309 Cell Biology Laboratory (0-2-1). Prerequisite or Corequisite: **BIO 308**. Selected exercises designed to reinforce concepts covered in **BIO 308**.

BIO 310 Genetics (3-0-3). Prerequisites: **BIO 200** and **BIO 202**. Principles of transmission and molecular genetics in prokaryotes and eukaryotes, with emphasis on classical and molecular analysis techniques and their interpretation.

BIO 311 Genetics Recitation (0-2-1). Prerequisite or corequisite: **BIO 310**. Problem solving, demonstrations, and special projects with emphasis on databases and Web tools for genetic and bioinformatic analyses.

BIO 380 Biology Content for Middle School Teachers (3-4-5). Enrollment is restricted to students seeking middle school licensure. No credit towards biology major or minor. Biological concepts relevant to students seeking middle school licensure will be discussed and related to timely issues. Lectures will coordinate with laboratory exercises and inquiry-based activities.

BIO 390 Writing in Biology I (2-0-2).
Prerequisite: a declared biology major. Corequisite: Students must be concurrently enrolled in a 300- or 400-level content-based biology course. Prior to registering for BIO 390, students must obtain a written agreement from the content course instructor indicating willingness to serve as a grader of the required written report. This course is designed to develop the writing and oral presentation skills of students through assigned projects and in-class activities. Students will write conceptual (review or theoretical) papers according to a standard format. A substantial written report is one of the requirements. The content course instructor, in consultation with the student, will determine the topic of the written report. *Writing.*

BIO 391 Writing in Biology II (1-0-1). Prerequisites: **BIO 390** and a declared biology major. Corequisite: Students must be concurrently enrolled in a 300- or 400-level content-based biology course. Prior to registering for BIO 391, students must obtain a written agreement from the content course instructor indicating willingness to serve as a grader of the required written report. Students will write conceptual (review or theoretical) papers according to a standard format and give in-class oral presentations. A substantial written report is one of the requirements. The content course instructor, in consultation with the student, will determine the topic of the written report. May be repeated with change in title of the content course. *Writing.*

BIO 400 Orientation for Medical Technology Students (1-0-1). Prerequisite: Admission to the Medical Technology major. *No credit towards biology minor*. Pre-clinical orientation; general aspects of the hospital training program; concept of the medical technologist as a member of the health-care delivery team; lectures by education coordinators of hospital schools; visits to hospital clinical laboratories.

BIO 401 Urban School Service Learning in Biology (0-2-1). Prerequisites: Major in Biology and at least two Biology courses at the 300 level. Permission of Biology adviser. No credit towards biology minor. A service learning field course that involves assisting science teachers at a designated urban middle or high school for two hours per week. Requires a brief, reflective paper on the experience. May be taken twice for credit.

BIO 408 Animal Cell Culture (2-2-3).
Theoretical and practical introduction to methods of animal cell culture necessary for reseach in biomedical or biotech labs and in the pharmaceutical industry. Techniques will include choice of medium, passaging, freezing, tests of purity and viability, stable and transient transfection, and preparing primary cultures. *Effective Spring 2008.*

BIO 410 Theory and Practice of Light Microscopy (3-0-3). Prerequisite: **BIO 308**. Corequisite: **BIO 411**. Consideration of diverse theoretical and practical aspects of the light microscope.

BIO 411 Theory and Practice of Light Microscopy Laboratory (0-2-1). Corequisite 410. Laboratory exercises and projects undertaken outside of scheduled class time provide practical experience with various uses of the light microscope.

BIO 412 Elements of Immunology (3-0-3). Prerequisites: **BIO 306** and **BIO 308**. Nature of antigens, antibody structure and function, B and T cell activation, cytokines, immunoassays, terminology.

BIO 413 Elements of Immunology Laboratory (0-2-1). Prerequisite or Corequisite: **BIO 412**. Immunochemical assays and cell culture techniques. Preparation of single-cell suspensions and determination of cell viability. Identification and quantification of antigen-antibody interactions.

BIO 414 Parasitology (2-0-2). Corequisites: **BIO 302** and **BIO 415**. A basic course primarily designed for biology majors who desire an understanding of animal parasitology, including ecology, life histories, and host-parasite relationships.

BIO 415 Parasitology Laboratory (0-4-2). Corequisite: **BIO 414**. Selected exercises designed to reinforce concepts covered in **BIO 414**.

BIO 416 Microbiology (3-0-3). Prerequisite: **BIO 306**. Corequisite: **BIO 417**. Structure, function, and genetics of major groups of microorganisms, with emphasis on bacteria; the role of microbes in the economy of nature and man.

BIO 417 Microbiology Laboratory (0-4-2). Corequisite: **BIO 416**. The techniques of identification, manipulation, and quantification of microbes.

BIO 418 Histology (3-0-3). Prerequisite: **BIO 308**. Corequisite: **BIO 419**. Structure of mammalian cells, tissues, and organs, with emphasis on relationships of structure and function.

BIO 419 Histology Laboratory (0-2-1). Corequisite: **BIO 418**. Selected exercises designed to reinforce concepts covered in **BIO 418**.

BIO 420 Comparative Vertebrate Anatomy (2-0-2). Prerequisite: **BIO 302**. Corequisite: **BIO 421**. Comparative study of gross structure and evolutionary development of vertebrate organ systems.

BIO 421 Comparative Vertebrate Anatomy Laboratory (0-4-2). Corequisite: BIO 420. Detailed dissections of representative vertebrate specimens.

BIO 422 Mammalian Physiology (3-0-3). Prerequisite: **BIO 302**. Corequisite: **BIO 423**. Physiology of major organ systems of vertebrates, with an emphasis on mammalian physiology. Students may not take both **BIO 422** and **BIO 424** for credit.

BIO 423 Mammalian Physiology Laboratory (0-2-1). Corequisite: **BIO 422**. Exercises that emphasize modern methods of physiological measurement, and the analysis and presentation of physiological data.

BIO 424 Principles of Animal Physiology (3-0-3). Prerequisite: **BIO 302**. Basic concepts of comparative animal physiology will be developed from fundamental principles of chemistry, biology, and physics. The evolution of major physiological systems will be examined through a comparison of taxa ranging from protists through vertebrates. Students may not take both **BIO 422** and **BIO 424** for credit.

BIO 425 Principles of Animal Physiology Laboratory (0-2-1). Prerequisite or Corequisite: **BIO 424**. Exercises that emphasize modern methods of physiological measurement, and the analysis and presentation of physiological data.

BIO 426 Neurobiology (3-0-3). Prerequisite: **BIO 302**
or equivalent. Exploration of the relation of behavior to neural function. Topics include basic neurophysiology and properties of sensory and motor systems illustrated with human and nonhuman examples. Students may not take both BIO 426 and **HSC 476** for credit.

BIO 427 Neurobiology Laboratory (0-4-2). Prerequisite or corequisite: **BIO 426**. Classical invertebrate experiments that provide an introduction to standard neurobiological techniques for studying neural activity, including simple dissection, stimulating and recording neural activity, and analyzing data.

BIO 428 Endocrinology (3-0-3). Prerequisite: **BIO 308**. Introduction to functions of hormones and endocrine glands, including mechanisms controlling hormone secretion; mammalian systems emphasized.

BIO 430 Bioinformatics (3-0-3). Prerequisites: **BIO 306** and **BIO 310**. A course in either statistics or computer science is highly recommended. Introduction to the tools and techniques of bioinformatics, with emphasis on computational techniques to analyze genomic and proteomic data. Topics include searching of databases, sequence alignment and analysis, phylogenetic methods and computer programming to analyze database information. A project using original or Internet bioinformatics tools is required.

B10 432 Molecular Genetics (3-0-3). Prerequisite: **BIO 308**. Principles of modern molecular genetics and gene regulation.

BIO 434 Elements of Pharmacology (3-0-3). Prerequisites: **BIO 302** and **BIO 306**. An analysis of the basic principles of the pharmacokinetics and pharmacodynamics of selected therapeutic agents. Emphasis will be on the experimental basis of drug discovery, design, and clinical use.

BIO 435 Techniques in Molecular Biology (1-6-4). Prerequisite: **BIO 308**. A lecture/laboratory course in fundamentals of modern biotechnology with emphasis on the techniques and procedures of molecular biology. Students will work together to complete a project.

BIO 436 Evolutionary Genetics (3-0-3). Prerequisites: **BIO 304** and **310**. An introduction to the modern theory of evolutionary genetics, including development of the concepts of genetic diversity, natural selection, random genetic drift, population substructure, infinite-alleles models, and the neutral theory of molecular evolution.

BIO 438 Advanced Cell and Molecular Biology (3-0-3). Prerequisite: **BIO 308**. Advanced study of topics in cell and molecular biology. Papers from the primary scientific literature will be read and discussed.

BIO 450 Evolutionary Biology (3-0-3). Prerequisites: **BIO 300** or **302**, and **304**. Advanced lectures on evolution that consider traits, genes, and their interaction with environmental variation. Topics include the basic quantitative methods required to interpret evolutionary change, the consequences of population structure, molecular approaches to phylogenetic studies, and the changes in genetic variation under different models of selection, drift, migration, and mutation.

BIO 452 Marine Ecology (3-0-3). Prerequisites: **BIO 300** or **302**, and **304** or equivalents. An advanced ecology course that encompasses marine biology, ecological adaptations of organisms to the marine environment, and interspecific interactions. This course will cover marine habitats and the specializations of organisms that live in them.

BIO 453 Field Experience in Ecology and Conservation Biology (1 to 6). Prerequisites: **BIO 300** or **302**, and **304**. This course will examine principles of ecology and conservation biology through field research in a natural setting. Students will participate in research projects emphasizing analyses of biodiversity, population demography, species interactions, or behavior. Following preparatory sessions at Cleveland State University, the class will travel to off-campus field sites for the balance of the course. Living conditions may be primitive in the field and international travel may be required. See semester course schedule and contact the biology office (216) 687-2440 for further information.

BIO 454 Ecology (2-0-2). Prerequisites: **BIO 300** or **302**, and **304**. Study of interactions of organisms with their environment, including growth and regulation of populations, energetics of organisms and ecosystems, life-history evolution, and community ecology.

BIO 455 Ecology Laboratory (0-4-2). Prerequisite or corequisite: **BIO 454**. Selected exercises designed to reinforce concepts covered in **BIO 454**. The laboratory includes a few one-day field trips on weekends.

BIO 456 Vertebrate Biology and Evolution (3-0-3). Prerequisites: **BIO 302** and **304**. Topics cover the biology of vertebrates, with special emphasis on those aspects that relate to the evolutionary history of the group; lectures on the basic mechanism of Darwinian evolution.

BIO 458 Behavior (3-0-3). Prerequisites: **BIO 302** and **304**. An introduction to, and survey of, animal behavior from an evolutionary perspective.

BIO 460 Vertebrate Embryology (3-0-3). Prerequisite: **BIO 308**. A comparative study of development in the vertebrates. Emphasis is upon developmental anatomy and evolutionary aspects of the group.

BIO 462 Evolutionary Ecology of Sexual Reproduction (3-0-3). Prerequisite: **BIO 300** or **BIO 302**. Although organisms spend huge amounts of energy carrying out activities related to sexual reproduction, it is by far the most dominant mode of reproduction. This course will explore that dilemma and examine various modes of sexual reproduction in diverse organisms in an evolutionary context.

BIO 464 Developmental Biology (3-0-3). Prerequisite: **BIO 308**. The fundamental principles of development will be illustrated using classical invertebrate and vertebrate systems. The molecular, genetic, and cellular basis of development will be integrated with classical descriptive and experimental approaches.

BIO 465 Developmental Biology Laboratory (0-2-1). Prerequisite or corequisite: **BIO 464**. Examination of important mechanisms and concepts operating in developing animal systems. Laboratories will expose students to both classical embryology and modern molecular approaches to experimental developmental biology.

BIO 468 Theories of Aging (3-0-3). Prerequisite: **BIO 308**. This course is an inquiry into the reasons why some organisms show aging in the form of senescence, while other organisms seem to be perennial, or at least long-lived. Current theories of aging will be critically analyzed.

BIO 471 Summer Local Flora (2-4-4). Prerequisite: **BIO 300**. Study and identification of representative species, genera, and families of mainly local vascular plants found in summer. Lecture, laboratory, and field work.

BIO 472 Wetland Ecology (3-2-4). Prerequisites: **BIO 300** and **BIO 304**. A study of the interaction of physical, geochemical, and biological components of wetland ecosystems. Adaptations of organisms in wetland ecosystems and community interactions are emphasized. Field and laboratory study give students experience in inquiry-based activities involving data collection and analyses used in wetland ecology. Techniques in wetland characterization and delineation are covered.

BIO 473 Spring Local Flora (2-4-4). Prerequisite: **BIO 300**. Study and identification of representative species, genera, and families of mainly local vascular plants found in spring. Lecture, laboratory, and field work.

BIO 474 Stream Ecology (3-2-4). Prerequisite: **BIO 300** or **302** or **304**. A study of the interaction of physical, geochemical, and biological components in stream ecosystems. Adaptations of organisms in aquatic environments, community interactions, and ecosystem energetics are emphasized. Field and laboratory study give students experience in inquiry-based activities involving data collection and stream ecosystem analyses. Techniques in stream habitat and water quality assessment are covered. An 8-week summer course held at Woodlake Environmental Field Station, Peninsula, Ohio.

BIO 476 Plant Biochemistry (3-0-3). Prerequisites: **BIO 300** and **308**. Corequisite: **BIO 477**. Basic physiological processes in plants; photosynthesis, uptake of nutrients, respiration, growth, and the role of hormones and enzymes involved in these processes.

BIO 477 Plant Biochemistry Laboratory (0-2-1). Corequisite: **BIO 476**. Selected exercises designed to reinforce concepts covered in **BIO 476**.

BIO 478 Morphology of Angiosperms (3-0-3). Prerequisite: **BIO 300**. Corequisite: **BIO 479**. Study of the overall form, development and, to a minor extent, microscopic structure of the vegetative and reproductive structures of flowering plants.

BIO 479 Morphology of Angiosperms Laboratory (0-2-1). Corequisite: **BIO 478**. Selected exercises designed to reinforce concepts covered in **BIO 478**.

BIO 480 Developmental Plant Biology (3-0-3). Prerequisite: **BIO 300**. Corequisite: **BIO 481**. Plant anatomy and morphogenesis: a comparative study of the origin, differentiation, and structure of cells, tissues, and organs in higher plants, with emphasis on evolutionary development.

BIO 481 Developmental Plant Biology Laboratory (0-2-1). Corequisite: **BIO 480**. Selected exercises designed to reinforce concepts covered in **BIO 480**.

BIO 490 Honors Research (1 or 2).
Prerequisite: Honors degree status. Supervised research in a faculty member's laboratory on a project approved by the Honors Program Committee. May be repeated for credit.

BIO 491 Honors Thesis and Defense (3-0-3).
Prerequisite: Honors degree status. Written report on honors research project and a public defense of the thesis before a faculty committee. *Writing*.

BIO 492 Honors Seminar (1-0-1).
Prerequisite: Honors degree status. Oral reports on selected topics, including the honors research project. May be repeated for credit. *Writing*.

BIO 493 Special Topics in Biology (3-0-3).
Prerequisite: at least junior standing. Study of a particular topic in biology. Topics to be announced in semester course schedule. May be repeated for credit with a change of topic.

BIO 494 Special Topics in Biology (4-0-4).
Prerequisite: at least junior standing. Study of a particular topic in biology. Topics to be announced in semester course schedule. May be repeated for credit with a change of topic.

BIO 495 Seminar (1-0-1).
Prerequisites: Senior standing and major in biology. Presentation of student reports on topics of the instructor's choice. *Writing*.

BIO 496 Independent Study in Biology (0-4-2).
Prerequisites: Junior or senior standing, and permission of Biology adviser. Special problem or independent study course for undergraduate Biology majors. May be repeated for credit. *Writing*.

BIO 497 Independent Study in Biology (0-8-4).
Prerequisites: Junior or senior standing, and permission of Biology adviser. Special problem or independent study course for undergraduate Biology majors. May be repeated for credit. *Writing*.

BIO 499 Exit Evaluation (0-1-0).
Prerequisite: Senior standing. Final exit examination and outcomes assessment evaluation required of all graduating seniors. Graded S/U.

Black Studies Courses

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Faculty

Associate Professor: Michael Williams.

Course Descriptions

BST 200 Introduction to Black Studies (4-0-4).
Prerequisite: none. Introduction to Black Studies is designed to serve as the foundational course for those interested in pursuing the Black Studies major or minor. The theoretical and applied foundations of the Black Studies discipline are presented and explored. The course will introduce the student to the discipline's founders. The course will follow the development of the discipline from its origins to its current state. *Human Diversity*, *African-American Experience*.

Business Law Courses

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Faculty

Professor: Bruce McClain; **Associate Professor:** Theresa Johnson Holt.

Course Descriptions

BLW 411 Business Law and Ethics (3-0-3).
Prerequisite: Junior standing. Topics include elements of legal contracts, proof, inadmissible evidence, discharge, breach, and termination; statutes of fraud and limitations; principal-agent relationships; nature of partnerships and essentials of partnership agreements; formation and organization of corporations; powers and regulations of foreign corporations; Uniform Partnership and Ohio General Corporation Acts. *Writing*.

BLW 412 Advanced Business Law (3-0-3). Prerequisite: **BLW 411**. Extends study of topics covered in BLW 411. Focuses on laws that protect individuals and society. Topics include business crimes, consumer protection, employment discrimination, property rights, and environmental law. *Writing*.

College of Business Administration
Special Topics Courses

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Course Descriptions

BUS 101 Introduction to University Life (1-0-1).
Part of the university's General Education Requirements, this is a required course for freshmen intending to pursue the degree in business or computer and information science. Covers various issues related to univers ity life, academic achievement and choosing a major, career planning, and related topics. *Freshman Orientation*.

BUS 193 Special Topics (2-4 credits). Special topics in business, suitable for students in their first or second year of col lege. Open to students from all colleges or majors. A free elective; does not count toward the BBA d egree core requirements.

BUS 293 Special Topics (2-4 credits). Special topics in business, suitable for students in their first or second year of col lege. Open to students from all colleges or majors. A free elective; does not count toward the BBA d egree core requirements.

BUS 393 Special Topics (2-4 credits). Special topics in business, suitable for students in their second or third year of col lege. Open to students from all colleges or majors. A free elective; does not count toward the BBA d egree core requirements.

BUS 490 Business Internship (1-4 credits).
Prerequisites: Approval of program head or department chair; senior standing. Designed to provide the business student with supervised professional work experience in one or more areas of business. Internship e xperience will be sponsored by a professor in a business discipline and will require a written proposal and a final report.

BUS 493 Special Topics (2-4 credits). Special topics in business, suitable for students in their third or fourth year of col lege. Open to students from all colleges or majors. A free elective; does not count toward the BBA d egree core requirements.

BUS 499 Honors Thesis in Business Administration (4 credits). Prerequisite: Restricted to senior honors students in Business Administration. The Honors Thesis requires the honors student to conduct a piece of or iginal research in business administration under the supervision of a Business faculty member. The thesis will be presented orally and submitted as a written report.

Career Services Courses

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Course Descriptions

CSC 121 Career Orientation (1-0-1).
Prerequisite for entry into the Cooperative Education Program, but open to all students. Covers policies and procedures of the Cooperative Education Program, orientation to career decision-making, personal evaluation, interviewing techniques, resume preparation, and job-market trends. Satisfactory/Unsatisfactory basis only.

CSC 224 Career Exploration (3-0-3).
Designed to help students explore the world of work, their skills and interests, job-search strategies, and the relationship between various college majors and careers. Highly recommended for undeclared/undecided students. Satisfactory/Unsatisfactory basis only.

CSC 300 Co-op Field Experience (1-0-1).
Required of and limited to students on co-op work assignments in all colleges. One hour of credit is awarded for each successful assignment completed. This credit is not counted toward the number of hours needed for graduation but it will add academic hours to a student's credit total and enhance career preparedness.

CSC 321 Employment Strategies (1-0-1).
Designed to prepare juniors, seniors, and graduate students for an effective job search. Covers a range of related subjects: taking personal inventory, initiating a personal job campaign, resume preparation, telephone techniques, accessing the hidden job market, salary negotiations, networking, interviewing, follow-up measures, and strategies to enhance on-the-job success. Satisfactory/Unsatisfactory basis only.

CSC 400 Co-op Field Experience (1-0-0).
Special field assignment for students who have completed prior co-op requirements or who participate in community work study. Satisfactory/Unsatisfactory basis only.

Chemical Engineering Courses

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Faculty

Professors:
Joanne M. Belovich, George A. Coulman (Emeritus), Jorge E. Gatica, Bahman Ghorashi, Edward S. Godleski (Emeritus), Dhananjai B. Shah, Orhan Talu (Chair), Surendra N. Tewari; **Associate Professors:** George P. Chatzimavroudis, Rolf Lustig, Sridhar Ungarala; **Assistant Professors:** Nolan B. Holland

Course Descriptions

CHE 300 Chemical Engineering Principles (4-0-4). Prerequisites: **MTH 182**, **CHM 262**, **PHY 241**. Pre- or co-requisite: **ESC 250**. Mathematical analysis of steady-state chemical processes based on conservation of mass and energy. An introduction to computer-aided design of chemical processes.

CHE 302 Chemical Engineering Thermodynamics (4-0-4). Prerequisites: **CHE 300**, **ESC 321**, **MTH 283**, and **ESC 250**. Evaluation and application of the laws of thermodynamics with respect to physical and chemical processes. Real gas behavior, solution thermodynamics, phase and reaction equilibria.

CHE 306 Transport Phenomena (4-0-4). Prerequisites: **CHE 300**, **ESC 301**, and **ESC 250**. Formulation of the physical laws of momentum, heat, and mass transport, with emphasis on their interrelationship. Application of these principles to basic transport processes. Diffusive and convective transport mechanisms.

CHE 308 Junior Chemical Engineering Laboratory (0-2-1). Prerequisites: **CHE 300**, **ESC 350**, or permission of the instructor. Introduction to common practices in engineering laboratories and preliminary statistical concepts on experimental design, data collection, and analysis of experimental data. Introduction to preparation and presentation of technical reports. Perform experiments on bench scale apparatus with an emphasis on measurements and statistical assessment of experimental data. Concepts examined in detail include: correlation of experimental results with engineering science, design theory, and statistics in engineering. Comprehensive technical report and oral report presentation required. *Writing*.

CHE 366 Bioprocess Engineering Principles (3-0-3). Prerequisites: Calculus I (**MTH 181**), General Chemistry (**CHM 261**/**266**), Cell Biology (**BIO 308**), and either Biochemistry and Molecular Biology (**BIO 306**) or Biochemistry (**CHM 402**). An introduction to the fundamental concepts needed for the design of large-scale cell-based processes. Topics include: material and energy balance analysis of process equipment; the design of batch, continuous, and alternative reactor designs for growth of cells; heat transfer; fluid flow and mixing; aeration and agitation systems; downstream processing. Does not satisfy the technical elective requirement for chemical engineering students.

CHE 404 Chemical Reactor Design (3-2-4). Prerequisites: **CHE 302**, **CHE 306**, and **CHE 308**. Basic principles of chemical reaction engineering. Basic (Ideal) reactor description modeling, and design. Analysis of kinetic data. Isothermal and non-isothermal reactor design. Principles of catalysis. Reaction engineering principles in modern technologies.

CHE 408 Separation Processes (4-0-4). Prerequisites: **CHE 302**, **CHE 306**, and **ESC 350**. Study of diffusion mass transfer and mass transfer operation, including humidification, absorption, stripping, distillation, liquid-liquid extraction, leaching, drying, crystallization, evaporation, filtration, adsorption, and membrane separations.

CHE 420 Chemical Engineering Laboratory (2-4-4). Prerequisites: **CHE 306**, **CHE 404**, and **CHE 408**. In this course chemical engineering experiments are performed on both bench and pilot plant scale apparatus. The results are used to correlate the chemical engineering science, and the design theory taught in previous course work with the units' actual operation. Emphasis is placed on technical report-writing and oral report presentation. *Writing*.

CHE 430 Process Control (3-2-4). Prerequisites: **ESC 350** and **CHE 404**. Introduction to the application of process control to chemical and physical processes. *Writing*.

CHE 440 Process Design I (3-0-3). Prerequisites: **CHE 404** and **CHE 408**. Design of small-scale chemical systems with project and case study approaches, equipment and materials specification, economic evaluation of individual plant subsystems.

CHE 441 Process Design II (3-0-3). Prerequisite: **CHE 440**. Large-scale, integrated design of chemical systems within the constraints of return on investment, market forecasts, safety, and pollution abatement.

CHE 451 Agile Manufacturing (3-0-3).
Prerequisite: Senior standing in Engineering, or permission of instructor. An interdisciplinary course in agile manufacturing. Emphasis is placed on re-configurable self-directed work teams, flexible structures, adoption of advanced technology, and quality improvements.

CHE 461 Principles of Air Pollution Control (3-0-3).
Prerequisite: Senior standing in Engineering, or permission of instructor. The application of engineering principles to the analysis and control of air pollution; includes techniques of air sampling and analysis, atmospheric chemistry and transport, air quality standards, and methods of air pollution abatement.

CHE 466 Biochemical Engineering (3-0-3).
Prerequisite: Senior standing in Chemical Engineering, or permission of instructor. Introduction to the fundamental concepts in biochemical engineering. Topics include enzyme kinetics, immobilized enzymes, genetic engineering, cell growth kinetics, batch and continuous bioreactor design.

CHE 468 Process Modeling (3-0-3).
Prerequisite: Senior standing in Chemical Engineering, or permission of instructor. Review of the basic principles of transport of momentum, heat, and mass with applied problems. Numerical methods for solving more complex problems of transport phenomena and kinetics.

CHE 472 Principles of Adsorption and Catalysis (3-0-3). Prerequisite: Senior standing in Chemical Engineering, or permission of

instructor. An in-depth study of the chemical principles governing the adsorption of molecules onto chemically active surfaces of catalysts and determining how this adsorptive interaction causes chemical reactions to be promoted. The course emphasizes the study of catalysts in industrially significant reactions, such as in petroleum refining.

CHE 474 Multiphase Reactors (3-0-3).
Prerequisite: Senior standing in Chemical Engineering, or permission of instructor. Isothermal and non-isothermal analysis of kinetic data for gas-solid catalytic and noncatalytic reacting systems. Design of packed bed, fluidized bed, and moving bed reactors.

CHE 476 Multicomponent Mass Transfer (3-0-3).
Prerequisite: Senior standing in Chemical Engineering, or permission of instructor. Diffusion and mass transfer as applied to stagewise and continuous operations. Emphasis will be placed on multicomponent, non-isothermal, unsteady-state operations. There will be a considerable amount of time devoted to computer programs.

CHE 480 Advanced Materials Processing (3-0-3).
Prerequisite: Senior standing in Engineering, or permission of instructor. Use of fundamental principles in design and analysis of advanced materials processing, such as fabrication of semiconductor devices, optical materials fabricated by sol-gel processes, ceramic-metal composites, and control of morphology at submicron levels.

CHE 482 Introduction to Combustion Phenomena (3-0-3). Prerequisite: Senior standing in Engineering or Science major, or permission of instructor. Develops a foundation in combustion phenomena including transport and other mechanisms in homogeneous and heterogeneous combustion. Environmental implications of combustion. Elementary modeling and preliminary design calculations in industrial and modern applications of combustion, such as hazardous waste incineration, gas turbines, catalytic converters, and coal combustion systems. Regulatory concerns, stoichiometry, thermochemistry, incinerators and air pollution control.

CHE 484 Principles and Applications of Rheology (3-0-3). Prerequisite: Senior standing in Engineering, or permission of instructor. Rheological models for non-Newtonian fluids. Study of principles of equipment design.

CHE 486 Fundamentals of Polymers (3-0-3).
Prerequisite: Senior standing in Engineering, or permission of instructor. Study of polymer molecular structure and its relation to physical properties, such as molecular weight distributions, gel point, glass transition, heat capacity, and viscosity; polymerization kinetics; condensation esterification, emulsion polymerization; methods of analysis, such as X-ray diffraction, infrared spectroscopy, and other important basic engineering properties of polymers.

CHE 488 Materials Selection and Specification (3-0-3). Prerequisite: Senior standing in Engineering or permission of instructor. Application of engineering of materials science principles in the selection and/or specification of metals, ceramics, and plastic materials for use in structural, mechanical, and chemical usage. Mechanical properties, corrosion, oxidation, and variation of properties with temperature are considered.

CHE 494 Selected Topics in Chemical and Biomedical Engineering (3-0-3). Prerequisite: Permission of instructor. Topics of current importance in chemical and biomedical engineering.

CHE 494H Honors Selected Topics in Chemical and Biomedical Engineering (3 credit hours). Prerequisites: Junior or Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Topics of current importance in chemical and biomedical engineering.

CHE 495H Honors Selected Topics in Chemical and Biomedical Engineering (3 credit hours). Prerequisites: Junior or Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Topics of current importance in chemical and biomedical engineering.

CHE 496 Chemical and Biomedical Engineering Projects (1-4-3). Prerequisites: Senior standing in Chemical Engineering and 3.0 GPA or higher, or permission of chairperson. Special individual chemical engineering projects under the direction of a faculty adviser. May be repeated for up to 6 credit hours.

CHE 496H Chemical and Biomedical Engineering Honors Project (1 to 3 credit hours). Prerequisites: Junior or Senior standing, Honors standing or permission of university Honors Program, and approval of student honors adviser. Student will be involved in an engineering research or development project under the personal supervision of a faculty member. The specific responsibilities of the student will be arranged by mutual consent of the student, the student honors adviser, and the department's undergraduate adviser. May be repeated for credit.

CHE 499H Chemical and Biomedical Engineering Honors Thesis (3 credit hours). Prerequisites: Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Student will be involved in an engineering research or development project under the personal supervision of a faculty member. The specific responsibilities of the student will be arranged by mutual consent of the student, the student honors adviser, and the department undergraduate adviser. The culmination of this course is a written thesis that is approved by a committee of departmental faculty members. The student will also make a public, oral presentation of the thesis to Department faculty and students.

Chemistry Courses

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Faculty

Professors:
David J. Anderson, David W. Ball, Stan A. Duraj, Baochuan Guo, Michael Kalafatis, John Masnovi, Lily Ng (Chairperson), Yan Xu; **Professors with joint appointments:** Michael Tevesz; **Professors Emeriti:** Anson H. Andrist, Roger W. Binkley, Frank J. Bockhoff, Julius Kerkay, Kerro Knox, Robert L.R. Towns, Bruce F. Turnbull; **Associate Professors:** Mekki Bayachou, Valentin Gogonea, John Turner, Robert Wei, Aimin Zhou; **Associate Professors Emeriti:**
Thomas W. Flechtner, Ralph A. Gardner, Robert Megargle, Earl Mortensen, Paul Olynyk, Alan Rhodes; **Assistant Professors:** Xue-Long Sun; **Adjunct Faculty:**
Robert Bonomo, Stanton Gerson, Aloysius Hepp, Nicholas Leventis, James Phillips, Joseph Reed-Mundell, Alan Riga, James Smialek, Bingcheng Wang, Renliang Zheng; **Clinical Faculty:** Manjula Gupta, Michael P.C. Ip, Frederick Van Lente; **CCF Faculty:** Alex Almassan, Sipra Banerjee, Kathleen Berkner, Graham Casey, Martha Cathcart, Guy Chisolm, John Crabb, Paul DiCorleto, Joseph DiDonato, Donna Driscoll, Serpil Erzurum, Maria Febbraio, Paul Fox, Ram Ganapathi, Jaharul Haque, Stan Hazen, Mie-Jae Im, Donald Jacobsen, Sadashiva Karnik, Michael Kinter, Andrew Larner, Xiaoxia Li, Alan Marmorstein, Kunio Misono, Richard Morton, Richard Padgett, Edward Plow, Jun Qin, Robert Silverman, Roy Silverstein, Jonathan Smith, George Stark, Dennis Stuehr, Bruce Trapp, Qing Wang, Satya Yadav, Maciej Zborowski.

Course Descriptions

CHM 151 Chemistry Around Us (3-0-3).
Study of chemical thought from alchemy to chemistry, and how it affects our lives from the kitchen to the nuclear power plant. *Natural Science*.

CHM 156 Chemistry Around Us Laboratory (0-2-1). Corequisite: **CHM 151**. Selected experiments designed to reinforce concepts covered in **CHM 151**. *Natural Science Laboratory*.

CHM 251 College Chemistry I (3-0-3).
Prerequisite: one unit high-school algebra. Introduction to chemistry, including fundamental concepts, tools and techniques; matter and energy; atomic structure; chemical bonds and reactions; equilibrium and the gas laws; applications to daily life, industry and life processes. *Natural Science*.

CHM 252 College Chemistry II (3-0-3). Prerequisite: **CHM 251**. Survey of organic and biological chemistry with a specific orientation toward the health sciences. *Natural Science*.

CHM 255 Principles of Environmental Chemistry (3-0-3). Prerequisite: one-unit high-school algebra. Study of natural and polluted environmental processes through chemical concepts and principles.

CHM 256 College Chemistry Laboratory I (0-2-1). Corequisite: **CHM 251**. Selected experiments designed to reinforce concepts covered in **CHM 251**. *Natural Science Laboratory*.

CHM 257 College Chemistry Laboratory II (0-2-1).
Prerequisite: 256. Corequisite: 252. Selected experiments designed to reinforce concepts covered in **CHM 252**. *Natural Science Laboratory*.

CHM 261 General Chemistry I (4-0-4). Prerequisites: one unit each high-school algebra and chemistry or **CHM 251**. Stoichiometry, atomic theory, states of matter, electronic structure, oxidation-reduction, and thermodynamics. *Natural Science*.

CHM 262 General Chemistry II (4-0-4). Prerequisite: **CHM 261**. Kinetics, equilibrium, acid-base chemistry, nuclear chemistry, and descriptive chemistry. *Natural Science*.

CHM 266 General Chemistry Laboratory I (0-3-1). Corequisite: **CHM 261**. Selected experiments designed to reinforce concepts covered in **CHM 261**. *Natural Science Laboratory*.

CHM 267 General Chemistry Laboratory II (0-3-1). Prerequisite: **CHM 266**. Corequisite: **CHM 262**. Selected experiments designed to reinforce concepts covered in **CHM 262**. *Natural Science Laboratory*.

CHM 272 Honors General Chemistry (4-0-4). Prerequisites: **CHM 261** and instructor approval. Advanced course parallel to **CHM 262** open to qualified students by instructor approval only.

CHM 277 Honors General Chemistry Laboratory (0-3-2). Prerequisites: **CHM 266** and instructor approval. Advanced course parallel to **CHM 267** open to qualified students by instructor approval only.

CHM 278 REEL General Chemistry Laboratory (0-6-2). Prerequisites: **CHM 261**, **CHM 266** and instructor approval. Corequisite: **CHM 262**. Designed to provide chemistry research experience to enhance learning (R.E.E.L.). May substitute for **CHM 267**. *Natural Science Laboratory*.

CHM 300 Computer Applications in Chemistry (2-0-2). Prerequisites: **MTH 182** and **CHM 262** or **CHM 272**. Introduction to the use of personal computers for chemical problem solving, numerical methods, and access of online chemical resources.

CHM 310 Survey of Analytical Chemistry (2-0-2). Prerequisite: **CHM 262** or **CHM 272**. Corequisite: **CHM 315**. Introduction to and survey of classical and modern instrumental methods of chemical analysis.

CHM 311 Analytical Chemistry (4-0-4). Prerequisite: **CHM 262** or **CHM 272**. Corequisite: **CHM 316**. Theory and techniques of gravimetric and volumetric analysis, and fundamentals of electroanalytical chemistry.

CHM 315 Survey of Analytical Chemistry Laboratory (0-4-2). Prerequisite: **CHM 267** or **CHM 277**. Corequisite **CHM 310**. Classical analytical techniques: potentiometry and selective ion electrodes, solution and flame spectroscopy, infrared spectroscopy, gas chromatography.

CHM 316 Analytical Chemistry Laboratory (0-3-2). Prerequisite: **CHM 267** or **CHM 277**. Corequisite: **CHM 311**. Selected experiments

designed to reinforce concepts covered in **CHM 311**.

CHM 320 Survey of Physical Chemistry (4-0-4). Prerequisites: **MTH 182** and **PHY 222** or **PHY 242** or **PHY 244** and **CHM 262** or **CHM 272**. A less rigorous survey of physical chemistry designed for preprofessional majors.

CHM 321 Physical Chemistry I (4-0-4). Prerequisite: **MTH 281** or **MTH 283** and **PHY 242** or **PHY 244** and **CHM 262** or **CHM 272**. Behavior of gases, thermochemistry, spontaneity, equilibrium, phase rule, colligative properties, ideal and real solutions, condensed phases, electrochemistry, and introduction to chemical kinetics.

CHM 322 Physical Chemistry II (4-0-4).
Quantum chemistry, spectroscopy, introduction to statistical mechanics, kinetic theory of gases, and theoretical kinetics.

CHM 331 Organic Chemistry I (4-0-4). Prerequisite: **CHM 262** or **CHM 272**. Modern presentation of organic chemistry stressing theory and mechanism, extensive use of resonance and conformational analysis; alkanes, cycloalkanes, alkyl halides, alcohols, ethers, alkenes, alkynes, and stereochemistry. **CHM 336** should be taken concurrently.

CHM 332 Organic Chemistry II (4-0-4). Prerequisite: **CHM 331**. Continuation of **CHM 331**. Spectroscopy, aromatic compounds, aldehydes and ketones, carboxylic acids and their derivatives, amines, and polyfunctional compounds. **CHM 337** should be taken concurrently.

CHM 336 Organic Chemistry Laboratory I (0-3-2). Prerequisites: **CHM 262** or **CHM 272** and **CHM 267** or **CHM 277**. Corequisite: **CHM 331**. Organic chemistry laboratory exercises to accompany **CHM 331**.

CHM 337 Organic Chemistry Laboratory II (0-3-2). Prerequisites: **CHM 331** AND **CHM 336**. Corequisite: **CHM 332**. Organic chemistry laboratory exercises to accompany **CHM 332**.

CHM 338 REEL Organic Chemistry Laboratory (0-6-2). Prerequisites: **CHM 331**, **CHM 336**, and instructor approval. Corequisite: **CHM 332**. Designed to provide chemistry research experience to enhance learning (R.E.E.L.). May substitute for **CHM 337**.

CHM 341 Pharmacology I (3-0-3). Prerequisites: **CHM 332** and **CHM 337** or their equivalent. Corequisite: **CHM 402** is strongly recommended. First of a two-course sequence in pharmacology. General aspects of pharmacology, drug effects on the nervous system and neuroeffectors, psychopharmacology, depressants and stimulants of the central nervous system, anesthetics, drugs used in cardiovascular diseases, drug effects on the respiratory tract, drugs that influence metabolic and endocrine functions, chemotherapy, principles of toxicology, etc..

CHM 342 Pharmacology II (3-0-3). Prerequisite: **CHM 341**. Second of a two-course introduction to pharmacology. Study of human disease processes and the specific rational pharmacotherapeutics relating to the cardiovascular, respiratory, renal, hematological, and dermatologic systems as well as eyes, ears, nose and throat. Specific drug's indications, contraindications, mechanism of action, side effects, dosages, and methods of administration will be presented.

CHM 351 Medicinal Chemistry I (3-0-3). Prerequisites: **CHM 332** and **CHM 337** or their equivalent. Corequisite: **CHM 402** is strongly recommended. First of a two-course sequence in medicinal chemistry. Structure-activity relationships, molecular features of drugs, mechanisms of drug action, design and development of drugs, drug names and nomenclature, and therapeutic applications of drugs.

CHM 352 Medicinal Chemistry II (3-0-3). Prerequisite: **CHM 351**. Second of a two-course introduction to medicinal chemistry. Continuation of the topics from CHM 351.

CHM 379 Independent Study (v,1-4).
Prerequisite: Approval of departmental faculty member. Content and credit (up to four credits) as arranged with instructor. Graded S/U.

CHM 379H Honors Independent Study (v,1-4).
Prerequisite: Honors standing or permission of university Honors program. Content and credit (up to four credits) as arranged with instructor. Graded S/U.

CHM 380 Principles of Chemistry for Middle School Teachers (5-0-5). This course will provide the content, knowledge and skills of scientific inquiry necessary for teaching chemistry in the middle school.

CHM 401 Chemical Information (2-0-2). Prerequisite: **CHM 332** or equivalent. The chemical literature and access to the information it contains, automated chemical filing systems and computerized database searches. *Writing*.

CHM 402 Biochemistry I (3-0-3). Prerequisite: **CHM 332**. Chemistry of carbohydrates, lipids, proteins, nucleic acids, vitamins and hormones, with major emphasis on biochemical processes in human cells and organs and enzyme kinetics, and energetics of metabolic reactions.

CHM 403 Biochemistry II (3-0-3). Prerequisite: **CHM 402**. Metabolism of carbohydrates, lipids, proteins, nucleic acids, vitamins and hormones, with major emphasis on metabolism within human cells.

CHM 403 Environmental Toxicology (3-0-3).
Prerequisite: one year of natural sciences or permission of instructor. Topics on the impact of environmental pollutants on humans.

CHM 404 Environmental Chemistry (3-0-3).
Chemical aspects of environmental problems including air and water pollution, solid waste, toxic substances, and related topics.

CHM 406 Environmental Chemistry Laboratory (0-3-2). Prerequisites: **CHM 316** and **CHM 331**. Selected experiments designed to reinforce concepts covered in **CHM 404**, with emphasis on standard methods of analysis of air and water samples.

CHM 407 Environmental Toxicology (3-0-3).
Prerequisite: one year of natural sciences or permission of instructor. Topics on the impact of environmental pollutants on humans.

CHM 410 Electronics (2-3-4). Prerequisite: **CHM 411**
or equivalent. Introductory modular approach to analog and digital electronics including processing of signals, display of results, and control of experimental parameters.

CHM 411 Instrumental Analysis (3-0-3). Prerequisites: **CHM 322** and **CHM 316** and C or better in **CHM 311**. Basic theory and techniques of instrumental methods of analysis, with emphasis on spectrophotometry, X-ray, NMR, chromatography, and mass spectrometry.

CHM 416 Instrumental Analysis Laboratory (0-6-4). Prerequisites: **CHM 311** and **CHM 316**. Selected experiments designed to reinforce concepts covered in **CHM 411**. *Writing*.

CHM 417 Forensic Chemistry (2-2-3). Prerequisite: **CHM 411**. A general overview of the prevalent chemical principles, methods, and instrumentation involved in the analysis of physical evidence.

CHM 421 Special Topics in Physical Chemistry (4-0-4). Prerequisite: **CHM 322** or equivalent or instructor approval. Discussion of special topics in physical chemistry reflecting student and faculty interests.

CHM 423 Statistical Thermodynamics (4-0-4). Prerequisite: **CHM 322** or equivalent. Fundamentals of statistical mechanics, distribution laws, and development and application of partition functions to the evaluation of thermodynamic properties of chemical substances.

CHM 424 Chemical Kinetics (4-0-4). Prerequisite: **CHM 322**
or equivalent. Principles of rate processes considered and applied to chemical kinetics, investigation of uni- and bi-molecular reactions, and effects of isotopic substitution.

CHM 426 Physical Chemistry Laboratory I (0-4-3). Prerequisites: **CHM 321** or equivalent. Selected experiments in physical chemistry. *Writing*.

CHM 427 Physical Chemistry Laboratory II (0-4-3). Prerequisites: **CHM 322** and **CHM 426**. Selected experiments in physical chemistry.

CHM 431 Advanced Organic Chemistry (2-0-2). Prerequisite: **CHM 332** or equivalent. Applications of spectroscopic techniques in the study of organic reactions and compounds.

CHM 441 Inorganic Chemistry (4-0-4). Prerequisite: **CHM 321**. Corequisite: **CHM 322**. Consideration of the elements and their compounds based on electronic structure, molecular orbital theory, shape and structure of molecules, and ligand field theory.

CHM 444 Pharmacokinetics (3-0-3). Prerequisites: **CHM 342** and **CHM 352**; **MTH 182**. Mathematical description of drug absorption, distribution, metabolism and excretion. Includes a variety of methods by which drug concentrations in biological matrices and formulations are determined. Mathematical modeling involves the determination of the best parameter values for models used to fit experimental data determined in pharmacokinetic studies of clinical uses of pharmacokinetics.

CHM 446 Inorganic Chemistry Laboratory (0-3-2). Corequisite: **CHM 441**. Selected experiments in inorganic chemistry.

CHM 449 Pharmaceutical Science Practicum (0-12-4).
Prerequisites: Senior status in any BSPS track. Practical experience at a relevant, off-campus pharmaceutical science-related site.

CHM 455 Biotechnology Techniques (1-5-4). Prerequisite: **CHM 332** and **CHM 337**. Techniques of immunoassays and techniques of isolation, manipulation, and analysis of proteins/nucleic acids are covered. Includes both lecture and laboratory.

CHM 461 Polymer Chemistry (3-0-3). Prerequisite: **CHM 332**. Consideration of polymer structures and properties; kinetics and mechanism of polymerization, copolymerization and polycondensation.

CHM 471 Faculty Colloquium (1-0-1). Prerequisite: Senior standing in chemistry. Research seminars presented by faculty. Graded S/U.

CHM 472 Student Colloquium (1-0-1). Prerequisite: Senior standing in chemistry. Seminars presented by students.

CHM 479 Independent Study (v,1-6).
Prerequisite: Approval of departmental faculty member. Content and credit (up to 4 credits) as arranged with instructor. Graded S/U.

CHM 479H Honors Independent Study (v,1-6).
Prerequisite: Honors standing or permission of university Honors program. Content and credit (up to 4 credits) as arranged with instructor. Graded S/U.

CHM 489 Senior Research (v,1-6). Prerequisites: **CHM 401** and senior standing in chemistry. Design and execution of experiments, recording and reporting of results. Requires written reports on specific problem. May be repeated for up to six credits. Graded S/U.

CHM 496 Forensics Internship (0-9-3).
Prerequisites: All other courses required for forensic chemistry certificate. Practical experience at a relevant, off-campus forensics lab.

CHM 497 Topics in Chemistry (v,1-6).
Prerequisite: Instructor approval. Discussion of selected topics in chemistry as determined by faculty and student interest.

CHM 497H Honors Senior Research (v,1-6). Prerequisite: Honors standing or permission of university Honors program, **CHM 401** and senior standing in chemistry. Design and execution of experiments, recording and reporting of results. Requires written reports on specific problem. May be repeated for up to six credits. Graded S/U.

Chinese Courses

On this page:

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- **Course Descriptions**
- **To Modern Languages List**
- **Back to Course Index**

Faculty

Associate Professor : Philippa Brown Yin (Chairperson).

Course Descriptions

Students with native experience of Chinese may not enroll for credit in 100-level courses in Chinese.

All students with training or experience in Chinese other than a previous course in that language at Cleveland State must consult a counselor in the Department of Modern Languages for assistance in deciding where to enter the Chinese sequence. Failure to seek counseling may result in schedule shifts during the first week of class.

CHN 101, 102 Chinese I, II (4-2-5).
Prerequisite: CHN 101: None; CHN 102: Completion of CHN 101 with a "C" or better or permission of instructor. Essentials of Chinese usage; practice in hearing, speaking, reading, and writing. Lab fee.

CHN 193, 293, 393, 493 Special Topics in Chinese (1 to 4 credits). Prerequisite: Permission of instructor. Study of a particular topic in Chinese language, literature, or civilization. May be repeated with a change in topic. Lab fee.

Civil and Environmental Engineering Courses

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Faculty

Professors: Paul X. Bellini, Paul A. Bosela (Chair), Stephen F. Duffy, Yung-Tse Hung, Chin Kuo, Mark Tumeo; **Associate Professors:** Philip H. DeGroot, Norbert J. Delatte, Nilufer Dural, Lutful L. Khan, Walter M. Kocher: **Emeriti:** William G. Fleck, John Hemann, John J. Tomko.

Course Descriptions

CVE 211 Surveying (3-2-3). Prerequisite: **MTH 181**. Theory and techniques of horizontal and vertical distance measurement, angle measurement, theory and adjustment of errors, area and traverse calculations, tacheometry, state plane coordinate system, topographic mapping, horizontal and vertical curves, earthwork calculations, fundamentals of engineering graphics, integration of geometrical theory, and computer-aided drawing.

CVE 212 Surveying Laboratory (1-2-2). Practical application of theory learned in **CVE 211** through field problems involving the measurement of angles and horizontal and vertical distances. **CVE 211** must be taken concurrently or as a prerequisite.

CVE 310 Strength of Materials Laboratory (1-2-2).
Laboratory testing of engineering materials to determine physical properties and to verify basic theories. **ESC 211** must be taken concurrently or as a prerequisite.

CVE 312 Structural Analysis 1 (3-0-3). Prerequisite: **ESC 211**. Truss and frame analysis, influence lines and load position criteria, deflection analysis, analysis of indeterminate structures by compatibility methods, moment distribution method, slope deflection method.

CVE 322 Structural Steel Design (3-0-3). Prerequisite: **CVE 312**. Design of structural steel components subject to tensile, compressive, bending and combined bending and compressive loadings; design of bolted and welded connections.

CVE 331 Introduction to Geotechnical Engineering (3-0-3). Prerequisite: **ESC 211**. Phase relationships, index properties, soil classification, clay mineralogy and soil structure. Soil-water interaction; capillarity, shrinkage and swelling, permeability seepage and effective stress, shear strength and consolidation theories, slope stability.

CVE 332 Geotechnical Engineering Laboratory (1-2-2). Corequisite: **CVE 331**. Performance of basic soil tests, such as Atterberg limits, grain size analysis, compaction, consolidation, and triaxial testing. *Writing*.

CVE 361 Hydraulic Engineering (3-0-3). Prerequisite: **ESC 301**. Application of the principles of fluid mechanics to the design and operation of pipeline, pump, open channel, and ground-water hydraulic systems. Introduction to hydrology.

CVE 362 Hydraulics Laboratory (1-2-1). Prerequisite or Corequisite: **CVE 361**. Experimental verification of pump, open channel, and ground-water energy-loss theory. Measurement of pipe and open-channel flow. Determination of centrifugal pump operating characteristics. Simulation of flow in pipe networks.

CVE 371 Environmental Engineering I (3-0-3). Prerequisite: **ESC 301**. Introduction to environmental engineering issues, legal aspects, engineering solutions, and basic approaches to abatement system design. Includes water quality, water supply, wastewater treatment systems, air pollution abatement, fate of pollutants, solid wastes, hazardous wastes, hazardous materials management, and environmental impacts.

CVE 401 Structural Engineering Laboratory (0-3-1). Prerequisite: **CVE 422**. Laboratory work in testing of structural engineering materials and components; proportioning of concrete mixes; testing of concrete cylinders and beams, reinforcing bars.

CVE 403 Construction Planning and Principles of Estimating (3-0-3). Prerequisites: **CVE 322**, **CVE 331**. Types and uses of construction equipment and study of construction procedures; study of different types of estimates, direct and indirect costs, insurance, taxes, and bonds; analysis of construction schedule planning by CPM or PERT.

CVE 404 Civil Engineering Systems Analysis (4-0-4).
Prerequisite: Senior standing. Application of standard mathematical optimization procedures to the solution of linear and nonlinear civil engineering systems.

CVE 412 Structural Analysis II (3-0-3). Prerequisites: **CVE 312**, **ESC 350**. Matrix analysis of two- and three-dimensional trusses, continuous beams, and frames; emphasis on the displacement method and stiffness matrix development. Use of AutoCad and an ALGOR software program are required.

CVE 413 Advanced Strength of Materials (4-0-4). Prerequisite: **ESC 211**. This course will foster an understanding of a number of advanced concepts in the field of engineering mechanics. Topics include three-dimensional stress-strain relationships, failure theories, bending of non-symmetrical members, curved beam theory, beams on elastic foundations, torsion of noncircular shafts using membrane analogy, and plate theory.

CVE 414 Analysis and Design of Composite Materials (4-0-4). Prerequisite: **ESC 211**. Behavior of unidirectional composites, rule of mixtures, short-fiber composites, analysis of orthotropic lamina, analysis of laminated composites, design of polymer composite structures, and repair of reinforced concrete structures with composite materials.

CVE 415 Reliability (4-0-4). Prerequisites: **CVE 413**, **ESC 310**. Structural reliability depends on a precise definition of failure, which is usually specified by loss of service. In order to quantify reliability, a basic review of reliability mathematics, including probability density functions and hazard rate functions, is provided. Aspects of Monte Carlo and decision tree analysis will be discussed as they relate to structural analysis. Since there is appreciable scatter in the failure strength of brittle materials (such as ceramics and concrete) the concepts of Weibull analysis and weakest link theory will be thoroughly discussed. Bundle theory and its relationship to composite materials will be introduced. Standard techniques to estimate statistical parameters such as linear and nonlinear regression analysis,

as well as maximum likelihood estimation methods will be highlighted. Finally, issues relating to limit state functions, the reliability index, and approximate methods will be discussed.

CVE 417 Structural Vibrations (4-0-4). Prerequisites: **ESC 202**, **ESC 250**, **CVE 412**. Dynamic response of single and multiple degree-of-freedom and continuous structural systems to general force inputs by integration and modal methods, approximate design methods of structural systems under dynamic loading.

CVE 421 Behavior and Properties of Concrete (3-0-3). Prerequisite: **CVE 422**. Properties of hydraulic cements, aggregates, plastic, and hardened concrete; effect of admixtures and curing conditions; specifications and acceptance tests; placement, consolidation, finishing, and durability of concrete.

CVE 422 Reinforced Concrete Design (3-0-3). Prerequisite: **CVE 322**. Analysis and design of reinforced concrete members by service and ultimate strength methods; flexure, shear, displacement, and anchorage of beams; combined axial and bending stresses in columns; one-way slabs and continuous beams.

CVE 423 Prestressed Concrete (3-0-3). Prerequisite: **CVE 422**. Immediate and long-term stress losses in post-tensioned and pre-tensioned members; analysis and design of prestressed structural members for flexure and shear; proportioning of members for size and placement of reinforcement; analysis of crack width, development, and deflection.

CVE 424 Non-Destructive Evaluation (3-2-4).
Theory, methods, applications, and case studies of nondestructive evaluation for detecting and evaluating flaws and estimating the engineering properties of materials. Methods covered such as ultrasonics, acoustic emissions, impact-echo, seismic waves, ground penetrating radar, and thermal methods, with hands-on applications in a laboratory setting.

CVE 425 Advanced Structural Design (3-0-3).
Topics in reinforced concrete and steel design, plastic design of beams and frames, composite construction, plate girder design, torsion, two-way slab design and limit state design.

CVE 426 Senior Design (0-3-2).
Prerequisite: Senior standing. A capstone course which applies and extends previously developed principles of civil engineering. Students will form teams and work on design projects under the supervision of civil engineering faculty in the various areas offered by the faculty. Computer-aided analysis, cost estimation, planning, and management should be included in the design. Registration must be for two consecutive semesters of 2 credits each. *Writing*.

CVE 428 Structural Wood Design (4-0-4). Prerequisite: **CVE 322**. Vertical dead and live loads due to gravity, roof, and floor. Lateral design loads due to wind and seismic. Properties and grades of sawn lumber and glulam members; modification factors of allowable stresses; analysis and design of sawn and glulam beams for flexure and lateral stability, shear, bearing, and deflections; analysis and design of axially loaded members, combined axial, and bending effects. Properties and grades of plywood and other rated sheathing; analysis and design of horizontal diaphragms, chords, drag struts, and shearwalls. Design of nailed, bolted connections; timber connectors and connection hardware.

CVE 429 Foundation Engineering (3-0-3). Prerequisites: **CVE 331** and **CVE 332**. Subsurface exploration, bearing capacity analysis, shallow foundation design; spread footing, combined footing and mat footing. Lateral earth pressure theory; Retaining wall design; sheet piles; deep foundations; piles and caissons; soil improvement.

CVE 430 Advanced Soil Mechanics (3-0-3). Prerequisite: **CVE 331**. Soil mineralogy, determination of soil composition, clay-water electrolyte systems, soil composition, and engineering properties. Conduction phenomenon. Frozen soil engineering.

CVE 431 Advanced Foundations (3-0-3). Prerequisite: **CVE 429**. Subsurface explorations, shallow foundations, design of spread footings, mats, retaining walls, deep foundations, design of piles, piers and caissons.

CVE 440 Soil Stabilization and Decontamination (3-1-3). Prerequisites: **CVE 331** and **CVE 373**. Engineering classification of soils; clay mineralogy; properties of different types of soils including strength, permeability, volume-density and characteristics; soil contaminant interaction, methods of soil stabilization, methods of soil decontamination, process selection, and site remediation. Soil decontamination design project.

CVE 446 Transportation Engineering (3-0-3). Prerequisite: **CVE 331**. Survey of transportation development, characteristics, and planning; traffic characteristics capacity of various systems, including basic procedures, controls, and criteria in highway design; environmental considerations.

CVE 447 Highway Engineering (4-0-4).
Properties of materials used in highway construction. Effects of loading and the environment on pavement life. Design of flexible and rigid pavement systems. Construction methods and management.

CVE 450 Environmental Technology (3-0-3).
Introduction to environmental quality, water resources, wastewater treatment, air pollution, solid and hazardous waste management, waste site remediation. Emphasis on solutions to business, industrial, and manufacturing problems; including site audits, pollution prevention and regulatory issues. (This course is for non-engineers only.)

CVE 451 Boundary Surveying (3-0-3). Prerequisites: **CVE 211**, **CVE 212**. The land surveyor's role, analysis of evidence and procedures for boundary locations, retracement principles for sequences, simultaneous and public surveys, laws on surveying practices. (Surveying Certificate Program only.)

CVE 452 Real Estate Law (3-0-3). Prerequisites: **CVE 211**, **CVE 212**. Legal aspects of real estate transactions and documents (deeds, mortgages and leases) and selected elements of the law of real estate brokerage. (Surveying Certificate Program only.)

CVE 453 Subdivision Design (3-0-3). Prerequisites: **CVE 211**, **CVE 212**. Process of subdividing and platting land; analysis of soils, topography, terrain, earthwork, geometry and other variables for land subdivision; plat preparation; layout of development plans. (Surveying Certificate Program only.)

CVE 454 Route Surveying (3-0-3). Prerequisites: **CVE 211**, **CVE 212**. Route surveying and geometric design; topographic site surveys and mapping; civil engineering and construction surveys; earthwork computation; layout of industrial plants, buildings, cables, pipelines and manufacturing. (Surveying Certificate Program only.)

CVE 461 Hydrologic Analysis (3-0-3).
Characterization and analysis of the hydrologic cycle and associated hydrologic abstractions. Statistical analysis of hydrologic events, hydrologic routing, and the effects of urbanization on the hydrologic response of a watershed.

CVE 462 Open Channel Hydraulics (3-0-3).
Application of the principles of the conservation of mass, energy, and momentum to open channel flow phenomena. Analysis of open channel hydraulic structures and floodplain hydraulics. Emphasis is on computer applications and numerical methods.

CVE 463 Water Resources Engineering (3-0-3). Prerequisite: **CVE 361**. Analysis and hydraulic design of water resource engineering subsystems including subsurface drainage, pressure flow systems, pumps and turbines, reservoirs, spillways, and landfills.

CVE 464 Ground-Water Hydrology (3-0-3).
Analysis of the physical properties and the resultant ground-water flow in porous media. Application of the principles of the conservation and mass, energy, and momentum to ground water flow systems. Includes well hydraulics, well design, aquifer analysis, infiltration, flow in the unsaturated zone, and introduction to ground-water contamination.

CVE 470 Environmental Chemistry (4-0-4).
Theoretical concepts from inorganic, organic, and physical chemistry applied to water chemistry and environmental engineering issues.

CVE 471 Environmental Law, Regulation and Compliance (4-0-4). The study of environmental legislation and the resultant regulations as they apply to the environmental engineering profession. Addresses federal, state, and local regulations as applied to soil, water, air, and multimedia engineering activities.

CVE 472 Biological Principles of Environmental Engineering (4-0-4). Application of the principles of biochemistry and microbiology including microbial metabolic cycles, enzyme systems, inhibitors, and electron transport mechanisms important to the water and wastewater treatment processes.

CVE 473 Environmental Engineering II (3-0-3). Prerequisite: **CVE 371**. Introduction to environmental engineering design of unit processes and pollution abatement systems. Topics include water treatment plant design, wastewater treatment plant design, air pollution abatement systems, solid waste engineering management, hazardous waste engineering management, and waste site remediation.

CVE 474 Environmental Engineering Laboratory (1-2-2). Prerequisite: **CVE 371**. Laboratory methods for the measurement of physical, chemical, and bacteriological parameters of water and wastewater. Interpretation of laboratory results with regard to the design and operation of water and wastewater treatment processes and to the control of the quality of natural waters.

CVE 475 Solid and Hazardous Waste Engineering (4-0-4). Generation, storage, collection, transfer, treatment, and disposal of solid waste. Addresses engineering and management issues including waste minimization and recycling.

CVE 476 Environmental Health Engineering (4-0-4). The application of engineering principles to the analysis and control of problems in occupational and environmental health, with emphasis on problems in small water and wastewater treatment systems, industrial hygiene, air pollution, noise, hazardous materials control, and public health.

CVE 478 Water Treatment Plant Design (4-0-4).
Design of water treatment and distribution systems, engineering principles in design, selection of alternative process schemes, and cost estimates.

CVE 479 Wastewater Treatment Plant Design (4-0-4).
Design of wastewater treatment and collection systems, engineering principles in design, selection of alternative process schemes, and cost estimates.

CVE 481 Air Pollution (4-0-4). Prerequisite: **CVE 470**. Types of air pollutants, and their sources, characteristics, environmental effects, control, and environmental fate. Dispersion modeling.

CVE 490 Special Topics (1 to 4 credits).
Prerequisites: Senior standing and departmental approval. Detailed study of a special topic under the guidance of a faculty member. Available every semester.

CVE 491 Advanced Civil Engineering Design or Research I (1 to 4 Credits). Prerequisite: Senior standing. Advanced design or research under the direction of an instructor. Available every semester.

Classical and Medieval Studies Courses

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- **To Classical & Medieval Studies Major**
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Faculty

Professors: John A.C. Greppin, Edward R. Haymes, Nicholas J. Moutafakis; **Professors Emeriti:** Earl R. Anderson, Bruce A. Beatie, Glending Olson; **Associate Professors:** Michael Baumer, Elizabeth Lehfeldt, Derwood C. Smith; **Assistant Professors:** Stephen Cory, Heba El-Attar, Stella Singer, Abed el-Rahman Tayyara, Laura Wertheimer (Director).

Course Descriptions

CLM 293/393/493 Special Topics in Classical and Medieval Studies (1 to 6 credits). Focus on some topic in classical and medieval studies otherwise not offered. The topic may be an individual author; text, monument; genre; style; historical period; social, philosophical, or religious movement; linguistic problem; or an appropriate combination of these. May be repeated for a total of 24 credit hours with a change in topic. Classical and Medieval Studies course.

CLM 495 Seminar (1 to 3 credits).
Prerequisite: Permission of the instructor. In-depth study of some area related to classical and medieval studies. May be repeated fora total of 24 credit hours with change in topic.

CLM 498 Senior Thesis Proposal (1-0-1).
Prerequisities: Senior standing and permission of the CLM Director. During their last year, CLM majors will propose a senior thesis topic to the CLM Adisory Committee for approval. In most cases, the thesis will be closely related to the student’s area of concentration. When the topic has been approved, the student will be assigned to an appropriate thesis director and will register for the thesis over two semesters: CLM 498, followed by **CLM 499**.

CLM 499 Senior Thesis Writing (3-0-3).
Prerequisites: Senior standing and permission of the CLM director. During their last year, CLM majors will propose a senior thesis topic to the CLM Advisory Committee for approval. In most cases, the thesis will be closely related to the student's area of concentration. When the topic has been approved, the student will be assigned to an appropriate thesis director and will register for the thesis over two semesters: **CLM 498**, followed by CLM 499.

Notes: Other courses may apply toward the CLM major and minor. Also, certain special topics courses may apply, if approved by the CLM Advisory Committee. See individual departmental listing for course descriptions and prerequisites. For additional information, call (216) 687-4645.

Communication Courses

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Faculty

Professors:
Robert Abelman, David Atkin, Eileen Berlin Ray (Communication Management Division Director), Susan E. Kogler Hill, Leo W. Jeffres, Sidney Kraus (Emeritus), Jae-won Lee (Journalism and Promotional Communication Division Director), Kimberly A. Neuendorf, Richard M. Perloff (School Director); **Associate Professors:** Gene Hare, Michael H. Rand (Media Arts and Technology Division Director), George B. Ray, Jill E. Rudd; **Assistant Professors:** Cheryl Bracken, Claude File, Guowei Jian, Edward Horowitz, Katheryn Maguire, Gary Pettey, Sukki Yoon; **Term/Adjunct Faculty:** Clifford Anthony, John Ban, Patricia Burant, Eleanor Dombrowski, Holly Holsinger; **Professional Staff/Faculty:** Richard Pitchford.

Course Descriptions

COM 100/200/300 Communication Lab (1 to 6 credits). Practical workshops and labs to develop communication skills. Students may apply material from accompanying lecture courses (with which the lab may be coordinated) to specific communication problems or participate in special stand alone workshops. May be repeated as topic varies.

COM 101 Principles of Communication (4-0-4).
Reviews principles of communication and introduces theories applied in various contexts, including interpersonal, organizational, and mass communication. Lab experiences help students develop specific communication skills and apply theories in their everyday lives. *Social Science*.

COM 131 Media Mystery Tour: Insiders' Perspective (4-0-4). Through a combination of videotaped interviews, lectures, discussions and electronic field trips, you are introduced to the processes that form visual communication. Professionals in broadcast, video and audio production, corporate and organizational video, cable television and emerging technologies explain how they work their crafts. Emphasis is placed on developing an informed and critical understanding of the nature of media, how the media work, how they are organized and how they construct reality. You are introduced to the language and syntax of moving image communication and offered an opportunity to develop and understand these skills for effective communication.

COM 204 Single Source Video/Audio Production and Editing (4-4-4). Prerequisite: **COM 101**. Students are introduced to visual storytelling and writing for the ear. Concept of single-camera production, including composition and movement, moving image sequencing (such as cut-ins and cut-always), shooting for the edit, and three-point lighting are stressed. Students learn operation of camcorders, portable audio recorders, and video editors. Single microphone techniques, cueing, digital audio editing, and dubbing of various audio media are also introduced. Includes lab component.

COM 211 Communicating in Personal Relationships (4-0-4). Examines the fundamental role of communication in establishing and maintaining personal relationships. By surveying the leading research and theories in interpersonal communication, this course will engage students in the detailed analysis of how individuals enter into, maintain, and terminate relationships. Conceptual perspectives examined will include communicative competence, relational development, interaction process, codes, and context. *Social Science*.

COM 221 Introduction to Film (4-0-4).
Explores the range of film styles, movements, and genres; the relationship between theory and technique in the "language" of sounds and images; and the economic and social importance of film. Includes the screening and analysis of classical and contemporary films, both U.S. and international. *Arts and Humanities*.

COM 225 Media Writing (4-0-4).
Development of basic writing skills for journalists and other media professionals, including judging news values, following the inverted pyramid style of writing, and using the AP style and copy-editing techniques. Development of major news-gathering tools such as interviewing and covering traditional sources of news — meetings, speeches, and press conferences. Application of journalistic forms and tools for print and electronic media and public relations. *Writing*.

COM 226 Mass Media and Society (4-0-4). Prerequisite: **COM 101** or permission of instructor. Examines basic theoretical concepts and models underpinning the study of mass communication, including processes of message construction in media organizations, content patterns, audience message processing, media effects, media systems, and relationships with other systems. *Social Science*.

COM 231 Evolution of Mass Media (4-0-4).
Survey course tracing the origin and growth of mass media in the United States. Presents an overview and analysis of the influence of media upon American society. *Social Science*.

COM 242 Public and Professional Speaking (2-1-3).
Organizing and presenting informative and persuasive speeches, with stress on evidence and reasoning to support ideas, and adapting to the audience and speaking situation.

COM 293 Special Topics in Communication (2-4 credits).
Prerequisite: Permission of instructor. Topics of interpersonal, mass, or telecommunication that change each semester and focus on communication skills. May be repeated once.

COM 301 Broadcast and New Media Writing (4-0-4). Through a combination of writing assignments, lectures and discussions, this course familiarizes students with various types of writing used in new media, broadcast media and allied fields. Special emphasis is put on television and radio news writing, and on writing commercials and PSAs (public service announcements) for TV and radio. Students also learn about the use of broadcast style writing in non-broadcast applications such as corporate and organizational video, internet sites and writing for emerging media. *Writing*.

COM 303 Communication Inquiry (4-0-4). Prerequisite: **COM 101** or permission of instructor. Understanding methods of inquiry in

communication, including social science orientation, quantitative and qualitative methods for gathering and analyzing data, and critiquing and interpreting research. Theory, design, and basic statistics involved in survey and experimental research. Students are actively involved in data collection and research projects.

COM 310 Psychological Processing of Media (4-0-4). Examines how people process information from mass and interactive media, including both traditional and emerging media. The class focuses on both psychological and communication issues, applying theories to media use, impact of media on consumers, and ways to design more effective media environments.

COM 320 History of the Moving Image (4-0-4). Prerequisite: **COM 221**, **COM 226**, or permission of instructor. Historical study of silent and sound film styles in their social, economic, and technological contexts. Film influence in early television production is also considered. Both U.S. and international films are considered. *Western Culture and Civilization*.

COM 321 Documentary Form in Film and Television (4-0-4). Prerequisite: **COM 221** or permission of instructor. The history, theory, and contemporary practice of nonfiction film and film-for-television. Involves intensive analysis of selected films and tapes.

COM 325 Screenwriting (4-0-4). Prerequisite: **COM 221** or a film course. This course examines the tools of writing for the screen. Students will learn standard formats of screenwriting. The class will include the analysis of published screenplays, the development of character and story, and the presentation of student works for constructive comment and criticism. This intensive scriptwriting class is intended to help students construct and write a short film or the first act of a feature-length narrative.

COM 326 Advanced Reporting (4-0-4). Prerequisite: **COM 225**. Development of advanced information-gathering skills for the media, with an emphasis on use of public records, observational techniques, electronic data bases, and interviewing techniques. Covers various public and urban affairs contexts for the media, and some specialized writing forms, including writing news features and writing for the Internet. *Writing*.

COM 327 Media Criticism (4-0-4).
Introduces criteria for determining social responsibilities and judging the performance of print, broadcast, and film media. Addresses history, analysis, and evaluation of technique, content, and aesthetic effect of media messages. *Writing*.

COM 328 Specialized Writing (4-0-4).
Develops advanced reporting and writing skills using the journalistic personal essay form. The course introduces students to the personal essay and noted works by well-known writers. *Writing*.

COM 329 Contemporary Film (4-0-4). Prerequisite: **COM 221** or permission of instructor. Explores and examines structures of narrative filmmaking for cinema and television presenting the modern era. Examines cinematic practices outside and inside of the domestic U.S., market influence, the influence of the development of television, the economic expansion of the Hollywood apparatus, and cinema in opposition to dominant culture.

COM 330 Nonverbal Communication (4-0-4).
Study of nonlinguistic and paralinguistic aspects of communication, including personal space, body language, eye contact, touching, and paralanguage; survey of research in the field along with class experiences in nonverbal communication.

COM 331 Gender and Communication (4-0-4).
Explores the relationship of gender to the communication process. Examines issues of power, conflict, sex role stereotypes, and cultural patterns of interaction on interpersonal relationships. *Human Diversity*.

COM 332 Interracial Communication (4-0-4).
Applies communication theory to interracial situations, problem-solving in interracial groups, blockages to successful relations between the races, stereotyping, prejudice, and roles. *African-American Experience*, *Human Diversity*.

COM 341 Group Process and Leadership (4-0-4).
Examines the structure and dynamics of groups, the nature and function of leadership, problem-solving and decision-making, communication networks, role differentiation, and group growth.

COM 345 Film Theory (4-0-4).
This course focuses on theories used in the scholarly analysis of film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception.

COM 346 Communication in Organizations (4-0-4).
Explores approaches and processes of communication in organizational settings. Specific focus is on structure and function of messages and information dissemination, as well as application of theory.

COM 347 Political Communication (4-0-4).
Introduces students to contemporary and historical scholarship of politics, mass media, and public opinion. Examines such issues as the impact of television on elections, the press and the presidency, political advertising, presidential debates, and opinion polling. Explores theories and research on mass media and elections.

COM 348 Intercultural Communication (4-0-4).
Analyzes the cultural dimensions of communication with emphasis on interpersonal and social encounters. Examines the cultural foundations of communication behavior, including ethnicity, cultural sensitivity, personal relationships, group processes, verbal and nonverbal communication, and cultural adaptation. Strategies for effective intercultural communication are also discussed.

COM 350 Persuasive Communication and Attitude Change (4-0-4). Introduces students to the field of persuasion. Examines theories of persuasion, research on persuasive communication, and the formation of social and political attitudes. Topics include the dynamics of attitude change, interpersonal persuasion, brainwashing, subliminal persuasion, and media information campaigns.

COM 351 Audio Production for Radio (4-2-4). Prerequisite: **COM 204**, **COM 231**, or permission of instructor. Focuses on microphone techniques, commercial and news production techniques, radio writing, and operational tasks of broadcast radio and recording studios. Radio formats and program types are studied. Field recording and digital audio editing skills are honed. Includes lab component.

COM 352 Multi-Source Video Production (4-2-4). Prerequisite: **COM 204**, **COM 231**, or permission of instructor. Focuses on operation of video switcher, teleprompter, lighting board and studio cameras. Students learn television program direction and floor managing. Students study multi-camera production, studio and remote multi-camera lighting, and put knowledge in practice in the lab component. Program types studied include persuasive, news/informational, and entertainment.

COM 353 Media Electronics (4-0-4). Prerequisite: **COM 204**, **COM 352**, or permission of instructor. Covers history, practical application, and basic electronic theory as applied to design, operation, and maintenance of video/audio origination, recording, playback, and distribution equipment. Designed for majors and non-majors with technical/engineering interests or background.

COM 357 Principles of Public Relations (4-0-4). Prerequisite: **COM 225** or permission of instructor. Examines the role and context of professional public relations practitioners and development of techniques for ongoing public relations programs, managing crises, and conducting projects and campaigns. Development of particular public relations writing forms, including speeches, press releases, reports, and fact sheets.

COM 358 Media Law, Economics and Ethics (4-0-4).
Examines media law, including First Amendment and administrative law. Focuses on social, political, and economic influences. Examines legal constraints for students planning to become professional communicators.

COM 359 International Communication (4-0-4).
Surveys the global, regional, and national media systems and practices. Examines the role of the mass media in public diplomacy, national development, national policies, cultural interactions, and perceptions and images people develop about other countries, peoples, and the world. Also examines the future of the New World Information and Communication Order.

COM 360 Principles of Advertising (4-0-4).
Presents an overview of the field. Surveys the operational principles and fundamental practices of advertising that include advertising theories, ethics, regulation, research methods, media planning, message strategy and campaign planning strategy. Students also are involved in an advertising campaign project as part of the hands-on exercise in class.

COM 361 Advertising Copywriting and Layout Design (4-0-4). *(Number effective Spring 2006; previously **COM 460**.)* Prerequisite: **COM 360**, or permission of instructor. Students learn practical skills in writing copy for advertising and in laying out designs; focuses on creative writing exercises, computer graphic designs, portfolio development and the discussion of audience/consumer psychology as well as media use patterns as the basis for copywriting.

COM 362 Health Communication (4-0-4).
Focuses on interactions of people involved in the health-care process and the dissemination and interpretation of health-related messages. Provides overview of provider-recipient communication, communication in health-care organizations, and public health concerns as they relate to physical, mental, and social health issues.

COM 363 Advertising Media Planning and Sales (4-0-4). Prerequisite: **COM 360**. Introduces students to theory and methods of audience/media research, how to analyze and interpret audience and media research results, strategize sales presentations, and conduct account planning.

COM 364 Interactive Advertising Designs (4-0-4). Prerequisite: **COM 360**. Introduces students to the Internet as a communication medium, from a socio-cultural perspective. The course examines communication techniques needed to transform the Internet into an advertising tool. It combines theory and hands-on techniques in teaching students how to design and produce advertising campaigns online.

COM 366 Communication and Conflict (4-0-4).
Approaches to the management of intra-personal, interpersonal, and societal conflict, game theory, frustration and aggression, the etiology of conflict; role playing and case study methods to be supplemented by lecture-discussions and readings.

COM 368 Introduction to Language (4-0-4).
Introduces the role of language in communication. Topics include an introduction to linguistics, sociolinguistics, psycholinguistics, information processing, and animal language systems from a communication perspective.

COM 370 Communication Technology and Social Change (4-0-4). Studies the role of communication in societal change and the diffusion of innovations. Particular emphasis is placed on new communication technologies and the attributes of their adopters; the ongoing convergence of such technologies as telephone, broadcasting, film and the Internet.

COM 379 Communication and Negotiation (4-0-4). Prerequisite: **COM 366** or permission of instructor. Examines basic dimensions and theories of negotiation, and develops an understanding of the significance that communication theory has on the study of negotiation. Covers conflict resolution in a wide variety of contexts including interpersonal, organizational, community, international, and public policy.

COM 380 Family Communication (4-0-4).
Investigates communication in the family group, with emphasis on functional and dysfunctional ways in which family members relate to one another.

COM 388 The Rhetoric of Black America (4-0-4).
Studies the use of rhetoric by Black Americans as an instrument for modifying social, economic, and political conditions. Materials include speeches and documents by Black American spokespersons. *African-American Experience*, *Human Diversity*.

COM 393 Special Topics in Communication (2-4 credits).
Prerequisite: Permission of instructor. Topics of interpersonal, mass, or telecommunication that change each semester and emphasize skills and communication theory. Example: Photojournalism. May be repeated once.

COM 400 Studio and Media Production Department Management (4-2-4). Prerequisite: **COM 204**, **COM 352**, or permission of instructor. Analyzes and provides practical techniques and procedures of studio and media production department management. Students learn production systems design, production planning and process, facility bookmaking and budgeting. The lab component requires participation in Video/Audio Communication Center productions.

COM 401 Advanced Video/Audio Production (4-4-4). Prerequisites: **COM 204**, **COM 226**, **COM 352** or **COM 225**, **COM 301**, **COM 351**, **COM 404**, or permission of instructor. Students produce commercial-grade information, educational, training or marketing programs, or broadcast or cable programs for on- or off-campus clients. There is a lab component. Students also study basic operation of broadcast newsrooms and corporate/organizational video departments. May rotate instructors from other areas to allow for differing emphasis.

COM 403 Advanced Video/Audio Editing (4-4-4). Prerequisites: **COM 204**, **COM 352**, **COM 353** and permission of instructor. Students learn operation of nonlinear video editing, and digital audio workstations and digital graphics applications. Students study and practice the concepts of sequencing (including cut-ins and cut-aways), montage, time manipulation, rhythm, and transitions. Students spend considerable lab time outside the classroom.

COM 404 Performance for the Screen: Broadcast and Film (4-2-4). Prerequisites: **COM 204** and Theater prerequisites and permission of instructor. Students learn broadcast talent skills for both on- and off-camera work. Delivery styles, dressing for video success, and performance self-criticism techniques are all studied. The role of talent as communicator is emphasized. There is a lab component.

COM 405 Electronic Journalism (4-4-4). Prerequisites: **COM 204**, **COM 225**, **COM 226**, **COM 351** or **COM 352** and permission of instructor. Students learn to produce news programs and program components through further development of news writing, news

talent, and news production skills. Students also learn of the dilemmas faced every day by working broadcast journalists. Ethics and technologies are studied. Also includes elements of Computer-Assisted Reporting and reporting for the Internet. There is a substantial lab component. *Writing*.

COM 410 Film Production I (4-4-4). Prerequisites: **COM 204**, **COM 221**, **COM 325**, **COM 345**. This course is a production-based exploration of the development and transformation of cinematic practice as communication and art. It is designed to enable students to explore the development of narrative and non-fiction filmmaking through viewing and, centrally, producing work in both 16 mm and digital video formats. The class is intended to follow a course of study in film techniques and aesthetics, culminating in an original filmic work by the student.

COM 411 Film Production II (4-4-4). Prerequisites: **COM 204**, **COM 221**, **COM 325**, **COM 345**, **COM 410**. This course is a continuation of COM 410, a production-based exploration of the development and transformation of cinematic practice as communication and art. It is designed to enable students to collectively explore advanced filmmaking theory, history, techniques and aesthetics through the making of film/digital media projects in a series of workshops and assignments. The class is intended to follow a course of study in film techniques and aesthetics, culminating in a original filmic works produced by student groups in 16mm.

COM 414 Film Practicum (2-6-4). Prerequisites: **COM 411**. This advanced laboratory course thoroughly examines the filmmaking process from the script to the screen. It is designed so that each student can spend an entire semester exploring, fostering and developing ideas to create an original short film.

COM 425 Editing and Graphics (4-0-4).
Understanding basic principles for print media graphics and developing editing skills. Learning how to design and lay out newspapers, newsletters, magazines and Web pages using such computer software as PageMaker.

COM 426 Laboratory Newspaper I (1-10-4). Prerequisites: **COM 225** or **360** and permission of instructor. Introduces students to all aspects of newspaper work and publishing a publication - from advertising sales to distribution on newsstands. Students will increase skills in reporting, interviewing, and photography; learn basics of editing, newspaper design and layout; develop fundamental skills in PageMaker and PhotoShop software; understand rudiments of the business side of the publication; and participate in its distribution.

COM 427 Laboratory Newspaper II (Advanced) (1-10-4). Prerequisites: **COM 426** and permission of instructor. Continuation of Com 426: Laboratory Newspaper I. Students hold staff positions on the paper, mentor students in COM 426, and develop and maintain publication Web site. Students will continue to work on all aspects of creating a publication - from advertising sales to distribution on news stands, and will become increasingly involved in the decision-making process for news selection and placement, coordination of reporting assignments and story development, and the application of ethics and other related concerns.

COM 428 Imaging Africa (4-0-4).
Designed to enable students to explore and examine the processes, images, stereotypes, and myths associated with the historical development of film. Taught through lectures and intensive examination of films and television programming within a seminar setting. *Nonwestern Culture and Civilization*.

COM 444 Mediation and Collaborative Problem Solving (4-0-4). Prerequisite: **COM 366**, or **COM 379**, or permission of instructor. Examines how mediation works, factors that determine whether mediation can be used to resolve disputes, and the conditions under which mediation is most effective.

COM 447 Public Relations Writing (4-2-4). Prerequisites: **COM 225**, **COM 226** and **COM 357**, or permission of instructor. A workshop course in advanced public relations-writing skills. Emphasizes message design and dissemination techniques that range across print and electronic media for communication with both internal and external organizational publics, including newsletters and annual reports. *Writing*.

COM 448 Managing Organizational Teams (4-0-4).
Focuses on the structure, functions, and processes of organizational teams and work groups. Special attention is given to promoting effective teamwork in today's organizations through methods of team-building and examining leadership issues confronting teams.

COM 449 Advanced Issues in Health Communication (4-0-4). Prerequisite: **COM 362** or permission of instructor. Provides in-depth examination of key theoretic and applied approaches to health communication. Topics include health communication models, doctor-patient communication, gender issues and health, health information campaigns, mass-media influences on health, the role of culture on health and disease, the health-care organization, group influences on well-being, communication and mental health, communication and social health, and the politics of health communication.

COM 450 Media Programming and Research (4-0-4). Prerequisites: **COM 226**, **COM 231** or permission of instructor. Analysis of the social, economic, political and cultural setting of the media; exploration of the determinants of programming strategies based on media research at the local and national levels.

COM 455 Communication Campaigns (4-0-4). Prerequisites: **COM 226**, **COM 357**, or permission of instructor. Introduces students to the fundamentals of communication campaigns, including public information and political campaigns. Course content encompasses the role of campaigns in shaping social, cultural, and political agendas; theoretical foundations of communication campaigns; and campaign management techniques. Students participate in an actual campaign exercise to gain experience as campaign strategists.

COM 470 DVD and Emerging Media: Authoring and Project Management (4-0-4). Prerequisite: **COM 204**. Through DVDs and other media, guest speakers, lab exercises, readings and discussions, this course explores the world of DVD and emerging media. The technologies are examined and students are introduced to authoring and project management, the most common DVD careers filled by college graduates. How visual storytelling (sequencing) fits the world of DVD and other new media is also explored.

COM 475 Senior Seminar in Managing Communication (4-0-4). Prerequisites: Senior standing, 24 credit hours completed in Communication courses, or permission of instructor. Uses a case-study approach to facilitate in-depth integration of communication courses in relational, organizational, conflict, health, and intercultural communication. Focuses on analysis of problems in managing communication, with emphasis on decision-making, team dynamics, and conflict resolution, as well as preparation for a career in communication management.

COM 485 Science Writing for the Media (4-0-4). Prerequisites: **COM 326**. This course introduces students to principles and practices in science journalism. Students will develop their skills in reporting about science (i.e., information gathering) and writing news stories about scientific developments. They will hone their skills in effectively communicating science information through different modalities, such as newspapers, magazines, and broadcast media. The course has several parts: a) introducing students to multiple perspectives on communicating science through the mass media; b) developing news-gathering skills, such as how to interview scientists and understand scientific papers conveyed to the media; and c) writing about different aspects of science, including the biological, physical and social sciences. Students will get extensive practice writing science news and feature stories. *Writing.*

COM 490 Internship in Communication (2 to 8 credits). Prerequisites: Junior or senior standing, permission of internship director. Field work with community agencies concerned with promotional communication, communication in organizations, political campaigns, and the media. May be repeated for a maximum of 8 credit hours (only 4 credit hours can count toward the major).

COM 493 Special Topics in Communication (2 to 8 credits). Prerequisite: **COM 226**, or permission of instructor. Topics in interpersonal and organizational communication, broadcasting, film, journalism, and mass communication that change each semester and deal with a variety of important subjects and issues. May be repeated with departmental permission.

COM 494 Special Topics in Media Arts & Technology (2 to 8 credits). Prerequisite: **COM 204**, or permission of instructor. Topics in media arts, audio and video production, digital media, broadcasting, film and the Internet that change each semester and deal with a variety of important subjects and issues. May be repeated with departmental permission.

COM 495 Seminar in Communication (4-0-4).
Prerequisites: Senior standing, permission of instructor. Seminar topics vary across specific areas of emphases. May be repeated once.

COM 496 Independent Study (2 to 8 credits).
Prerequisites: Junior or senior standing, approval of a department faculty member. May be repeated for a maximum of 8 credit hours (only 4 credit hours can count toward the major).

Computer and Information Science Courses

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Faculty

Professors:
Alan Benander, Barbara A. Benander, Adam M.A. Fadlalla, Paul J. Jalics, Chien-Hua (Mike) Lin, Santosh K. Misra (Chairman), Toshinori Munakata; **Associate Professors:**
Timothy J. Arndt, Ben A. Blake, Donald G. Golden, Victor M. Matos, David R. McIntyre, Howard Paul, Michael A. Pechura, Janche Sang; **Assistant Professors:** Iftikhar Sikder; **Term Assistant Professor:** Jackie Woldering; **Term Instructors:** Stephen Adams, David Antolovich, Dennis Smolinski.

Course Descriptions

Note: see also **IST courses**

CIS 260 Introduction to Programming (4-0-4).
Prerequisite: None. Introduction to the principles of computation, problem solving methods, and algorithm development on a computer using a current object-oriented programming language. Development of good programming style and basic skills of designing, coding, debugging, and documenting programs. Topics include functions, arrays, strings, structures, recursion, file I/O, pointers, and introduction to linked lists.

CIS 265 Data Structures and Algorithms (4-0-4). Prerequisites: **CIS 260**, **MTH 153** or **MTH 181**. This is a continuation of CIS 260. Programming and problem-solving skills are further developed by using language features to implement various data structures such as stacks, queues, linked lists, trees, and graphs. Topics include additional programming and problem solving techniques, and sorting, searching, and hashing algorithms.

CIS 306 Computers and Society(3-0-3). Prerequisite: **CIS 265** or **IST 203**. History of computing and technology, the computer and the individual, privacy issues, legal issues, computer crime, computer security, future of computing.

CIS 334 Computer Organization (2-0-2). Prerequisite: **CIS 265**. Foundations of PC architecture and assembly language. Topics include machine language, hardware fundamentals, memory organization, data representation, addressing modes, and introduction to assemblers. This course contains the first half of the material from CIS 335. May not be used to satisfy BSCIS major-field requirements.

CIS 335 Language Processors (4-0-4). Prerequisite: **CIS 265**. Foundation of PC architecture and assembly language. Topics include machine language, hardware fundamentals, registers, numbering systems, data definition, and addressing modes. Fundamentals of systems programming including the implementation and use of assemblers, macro processors, linkers, loaders, and compilers. Examples of language processors are studied on various computers.

CIS 340 C/C++ for Systems Programming (2-0-2). Prerequisite: **CIS 265**. This course covers the basics of the C/C++ languages and selected standard library functions. Teaches students with a Java background to write C/C++ programs using standard library functions, primarily for use in later system-oriented courses.

CIS 345 Operating System Principles (4-0-4). Prerequisite: **CIS 340**. PC architecture and assembly language, including interrupts, I/O handling, and memory management. Study of operating system functions, including the management of computer resources such as processor scheduling, memory management, I/O device scheduling, and file system structure and protection using Unix.

CIS 368 Object Oriented Design and Programming (4-0-4). Prerequisite: **CIS 265**. Course provides in-depth coverage of both design and implementation of O-O programs. Students will gain understanding of the tenets of the O-O paradigm; they will design and create advanced O-O programs using a current object-oriented programming language. They will become familiar with pre-defined classes available for the language, and learn how to use them in their own software. Unified Modeling Language (UML) will be introduced as a graphical mechanism for system design. Students also will become familiar with design patterns.

CIS 408/508 Internet Programming (4-0-4). Prerequisite: **CIS 265**. Introduces Internet and intranet programming languages such as HTML, XML, Perl, JavaScript and ASP, in the context of building Internet and World Wide Web applications. Also discusses technologies such as Unix, socket programming, remote procedure calls, and Web-based application servers. Focuses on best practices enabled by each tool.

CIS 424/524 Comparative Programming Languages (4-0-4). Prerequisite: **CIS 265**. A short history of programming languages and styles precedes the study of a comparison of modern programming languages currently in use. The major programming paradigms are surveyed, including procedural, functional, object-oriented, graphical-user-based, and logic programming.

CIS 430/530 Data Base Concepts (4-0-4). Prerequisite: **CIS 265**. Concepts of data-base management systems and data-base models, primarily relational. Detailed study of query languages including relational algebra, Structured Query Language (SQL), and Query-by-Example (QBE). Introduction to data abstraction E-R models, normalization theory. Lab experience using a commercial DBMS and its supporting programming environment.

CIS 433 Systems Analysis(4-0-4). Prerequisite: **CIS 430**. Introduction to the tools and techniques of object-oriented analysis based on use of the Unified Modeling Language and the Rational Unified Process. System life cycle through the structured system specifications. Tools and techniques of object-oriented design.

CIS 434 Software Engineering (3-0-3). Prerequisite: **CIS 433**. Topics in software engineering and performance engineering, including comparison between structured and object-oriented software development, verification and testing, software design for concurrent and real-time systems, and system reengineering for increased performance.

CIS 438 Client-Server Computing (3-0-3). Prerequisites: **CIS 430** . Concepts of client-server architecture, distributed database design, electronic mail and data interchange, distributed programming methodology, and implementation issues. Distributed database and

electronic mail applications will be developed in cooperative distributed computing environment. Students will acquire system design knowledge and programming experience in client-server computing applications.

CIS 443/543 Graphical User Interfaces (3-0-3). Prerequisites: **CIS 340**, **CIS 368**; or **CIS 459**. Graphical User Interfaces for advanced bit-mapped display systems characterized by close interaction with pointing devices. Consideration of both the underlying application programming interfaces as well as the use of a framework of C++ classes. Use of an interactive environment for design and debugging. A specific industry standard system is explored in detail with extensive programming involvement.

CIS 454/554 Data Communications and Computer Networks (4-0-4). Prerequisites: **CIS 345**. Data communications: characteristics of physical transmission media, including international standards for data encoding and device interfacing; transmission principles, modems and multiplexors; data link protocols, mechanisms for error detection/correction, and flow control; Computer Networks: broad survey of existing networks; network topology; network layers from the ISO OSI reference model; network programming; analytical tools for network analysis and design.

CIS 457 Computer graphics (3-0-3). Prerequisite: **CIS 265**. Investigation of the some of the algorithms for the drawing of lines, polygons, circles and ellipses; image clipping, image transformation, fractals and splines.

CIS 459/559 Object Oriented Programming (3-0-3). Prerequisite: **CIS 340** . This course teaches the methodology of object-oriented design and programming using the C++ language. The C++ language taught includes built-in data types, pointers, classes, operator overloading, code reusability via simple and multiple inheritance, polymorphism, stream I/O, and the use of class libraries.

CIS 465 Multimedia (3-0-3). Prerequisite: **CIS 265**. Multimedia hardware; multimedia objects and their acquisition; applications of multimedia, multimedia tools and techniques; authoring advanced multimedia applications using authoring systems; investigating Windows programs for multimedia applications.

CIS 467 Introduction to Artificial Intelligence (3-0-3). Prerequisite: **CIS 265**. The course is an elementary introduction to artificial intelligence, which presents an overview of various domains of the field. Topics studied include search techniques, symbolic algebra, natural language processing, knowledge-based systems, reasoning under uncertainty, machine learning, and some non-symbolic topics such as neural networks and genetic algorithms. Common Lisp, a major symbolic AI language, will also be introduced.

CIS 490/590 Foundations of Computing (3-0-3). Prerequisites: **MTH 182**, **MTH 220**, and **CIS 335**; Mathematics majors may substitute one mathematics course numbered 280 or above for CIS 335 . Sets, relations, regular languages, finite automata, context-free languages, pushdown automata, phrase-structure languages, Turing machines, Church's theory, recursion, computability, decidability, computational complexity.

CIS 491 Professional Internship (1 to 3 credits).
Prerequisite: Junior standing and permission of a CIS Department faculty adviser. Corequisite: **CIS 490**. Work experience in a professional environment. The work performed must extend the academic curriculum and provide a meaningful learning experience in the student's area of interest. Term paper required. This course may only be taken once.

CIS 493 Special Topics in Computer and Information Science (1 to 4 credits). Prerequisite: Varies. Special topics of current interest in Computer and Information Science. Content varies each offering. May be repeated.

CIS 496 Independent Study (1 to 4 credits).
Prerequisites: Senior standing, departmental approval. Special research projects in Computer and Information Science. Arranged between student and adviser and subject to departmental approval prior to registration.

CIS 499 Honors Thesis in CIS (3 credits).
Prerequisite: Restricted to senior CIS honors students. The Honors Thesis requires the honors student to conduct a piece of original research in computer and information science under the supervision of a CIS faculty member. The thesis will be presented orally and submitted as a written report.

Dance Courses

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Course Descriptions

DAN 100 Performance Practicum (1 hour).
Prerequisite: Concurrent enrollment in one PES or DAN dance activity course and permission of instructor. Introduction to the performance techniques of live dance production. Learning, rehearsing, and performing a contemporary dance work in an informal and/or formal setting.

DAN 201 Introduction to Dance (3 hours).
Survey course exploring the diverse aesthetic, multicultural, and historical aspects of Western dance, including theater, social, and ethnic forms. *Arts and Humanities*.

DAN 210 Dance for the Physical Educator (1 hour).
Introduction to the fundamentals of dance with focus on clear movement patterning. Theories and skills of dance technique will be explored, including elements of rhythm, phrasing, step patterns, movement combinations, and qualitative and aesthetic considerations. Includes attention to dance teaching strategies.

DAN 211 Dance History (3 hours).
Study of the history of dance and its relationship to the arts and society from the 16th century to the present. *Arts and Humanities*.

DAN 212H The Pleasure, Power, and Art of Movement (3 hours). A survey course exploring the diverse aesthetic, multi-cultural, and historical aspects of western culture's dance forms and their relationship to non-western cultures. Through readings, lectures, viewing of dance, and participation in dance styles, an understanding of dance in present society will be developed, as well as a global viewpoint of how dance fits into the contemporary world. *Arts and Humanities*, *Human Diversity*.

DAN 240 Modern Dance III (2 hours). Prerequisite: **PES 141** or permission of instructor. Further study of modern dance theory and skill with emphasis on increasing physical competence and understanding of underlying theory. May be repeated for up to 9 hours.

DAN 250 Ballet III (2 hours). Prerequisite: **PES 151** or permission of instructor. Further study of the theory and skills of classical ballet, with emphasis on increasing physical competence and understanding of underlying theory. May be repeated for up to 8 hours.

DAN 300 Modern Dance Repertory (3 hours).
Techniques, improvisation, choreography, and production experience leading to public performance. Audition is required for entry.

DAN 301 Dance Composition I (2 hours).
Study and exploration of the elements of dance composition, including rhythm, time, space, gesture, and sources of composition material.

DAN 302 Dance Composition II (2 hours). Prerequisite: **DAN 301**. Explores the creative process and compositional elements of designing a choreographic work beyond the solo. Student will take the choreographic tools from previous levels of dance composition and apply them to the solo and group work.

DAN 340 Modern Dance IV (2 hours). Prerequisite: **DAN 240** or permission of instructor. Advanced contemporary dance technique expanding upon previously learned modern training to develop advanced movement phrases, integrated body patterning, and sensitivity to the body as an expressive instrument.

DAN 350 Ballet IV (2 hours). Prerequisite: **DAN 250**
or permission of instructor. Advanced ballet technique expanding upon previously learned ballet training to develop articulate execution of complex classical ballet vocabulary and refined presentational skills.

DAN 410 Teaching Dance (2 hours). Prerequisite: **DAN 210**. Methods for teaching various elements of dance in the elementary and secondary schools. Emphasis is upon developing educational dance/movement activities of both spontaneous and formal structure. Included are dance appreciation and interdisciplinary activities.

DAN 473 Contemporary Dance Technique (1 hour).
Prerequisite: Intermediate/advanced level or above of previous contemporary dance training. Continuing study in the techniques of contemporary dance; designed for the professional or post-graduate dancer interested in maintaining a dance training program. Consists of warm-up, floor and centerwork, and complex combinations emphasizing integrated body patterning and rhythmic clarity with a diverse qualitative sensibility.

DAN 480 Practicum in Dance (3 hours).
Prerequisite: Permission of instructor. A structured, supervised field experience designed to provide an extended, practical experience in a selected dance setting; designed and executed by the student in consultation with a member of the faculty.

DAN 496 Independent Study (Hour as Arranged).
Prerequisite: Permission of instructor. Faculty supervised independent study in an area of the student's interest.

DAN 499 Dance Seminar (1 hour).
Intensive study in topics of importance for contemporary dancers including creative process, world dance forms, guest artist residency activities, and body work issues. May be taken for credit more than once, but no single topic may be repeated. Topics appear in course schedule.

Dramatic Arts Courses

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Faculty

Professors Emeriti: Joseph J. Garry, Jr., Reuben Silver; **Associate Professors:** Guy E. Hare, Jr., Michael L. Mauldin (Director); **Assistant Professor:** Kenshaka Ali; **Term Assistant Professor:** Holly Hosinger; **Adjunct Faculty:** Eileen Arnold, Allan Byrne, Margaret Ford-Taylor, Jill Levin, Donald McBride.

Course Descriptions

DRA 101 Production Practicum (0-6-2).
Laboratory experience through work on university theatre productions in performance, technical work, or business participation. May be taken four times for credit; may be repeated thereafter without credit.

DRA 111 Theatre Appreciation (4-0-4).
Survey of the elements of dramatic/theatric communication; intended to develop understanding and enjoyment of the theatre in all of its forms; lectures, readings, demonstrations. *Arts and Humanities*.

DRA 200 Introduction to Technical Theatre (4-0-4). A survey of the basic techniques and practices in technical theatre and production, including stage management, pre-production, the rehearsal period, technical rehearsals, load-ins, and calling the show. Building a prompt script with all detailed paperwork will be emphasized. Prerequisite to all other technical theatre courses.

DRA 211 History of the Theatre I (3-0-3).
Survey of dramatic and theatrical developments from their ritual beginning through the theatres of the Greek, Roman, Medieval, and Italian and Spanish Renaissance, French Neoclassic and Elizabethan periods; focuses on the physical theatres, production techniques, and dramatic literature and conventions. Classical and Medieval Studies. *Arts and Humanities*, *Writing*.

DRA 212 History of the Theatre II (3-0-3).
Continuation of the history survey; Italian and French Neoclassicism, Restoration, 18th Century; Romanticism, 19th Century through 1850. *Arts and Humanities*, *Writing*.

DRA 213 History of the Theatre III (3-0-3).
Traces the rise of Realism and Naturalism, "Modern" theatre, Symbolism, Expressionism, Dada, Futurism, and Epic, to the beginnings of contemporary theatre. *Arts and Humanities*, *Writing*.

DRA 216 African American Theatre (3-0-3).
Study of contemporary Black plays and playwrights; the practice and roots of the contemporary Black theatre; the changing image of African-Americans from the stereotypes of early American theatre to today's varied characterizations. *African-American Experience*, *Human Diversity*, *Arts and Humanities*.

DRA 225 Principles of Acting for Television, Film, and the Stage (4-0-4). Study of the actor's vocal, physical, and psychological resources; introduction to the mechanics of stage movement; exercises in sensory, imaginative, emotional, and pantomimic responsiveness; fundamentals of characterization; attendance at productions.

DRA 300 Stage Management (3-0-3).
Study of the special problems and considerations of stage management in and out of rehearsal. Special emphasis is placed on prompt-books, scheduling and coordination functions of a working stage manager as well as performance functions such as calling a show.

DRA 301 Lighting Design (3-0-3). Prerequisite: **DRA 200**. This is an introductory course in the basic elements of stage lighting design. Study includes principles, theories, equipment and use of lighting, as applied to today's modern professional theatre.

DRA 311 Drama and Film (4-0-4). Prerequisite: **DRA 111**, **COM 221**, or permission of instructor. Detailed study of ten major plays which have been adapted into major films; study of differences in stage and film presentations with emphasis on structure, acting styles, and directing techniques.

DRA 314 Plays in Performance I (3-0-3).
Designed to acquaint the student with the major trends in literature and the authors writing for the stage from the earliest pre-literary oral traditions in the Middle East through the Greek Golden Age, Medieval European Drama, the Spanish Renaissance to and including 17th-Century France. A brief look at major classical Far Eastern (Sanskrit, Noh, Kabuki, Kyogen) dramatic literature will be included. Emphasis will be placed on the conventions, structures, and themes unique and common to each of the plays considered. *Writing*.

DRA 315 Plays in Performance II (3-0-3).
The course, consisting of lectures and guided class discussions, is designed to acquaint the student with the major trends in literature and the authors writing for the stage from the earliest pre-Elizabethan England to modern-day America. Topics will include Elizabethan, Jacobean, and Restoration England; 18th-Century England, France and Germany; 19th-Century England, France, Germany, Russia and America, French Neo-Classicism, and Romanticism to 1850. Emphasis will be placed on the conventions, structures, and themes unique and common to each of the plays considered. *Writing*.

DRA 316 Plays in Performance III (3-0-3).
The course, consisting of lectures and guided class discussions, is designed to acquaint the student with the major trends in literature and the authors writing for the stage from the mid-19th-century Europe to modern-day America. Topics will include the rise of Realism and Naturalism, Symbolism, Expressionism, Futurism, Dadaism and The Anti-Literary Movement. Playwrights will include Shaw, Wilde, Pinero, Strindberg, and Pirandello. Emphasis will be placed on the conventions, structures, and themes unique and

common to each of the plays considered. *Writing*.

DRA 317 Society and Minority Theatre (3-0-3).
"Society & Minority Theatre" is predicated on the notion that the American melting pot has failed in its original intent: E Pluribus Unum ("Out of Many, One"). Instead, we may describe the U.S. in reverse: "In One, Many"- so visible and vocal are the nation's sub-groups. Their rise to prominence has been so vigorous and occasionally so strident that it is often described as a revolution. Blacks, Gays, Women, Hispanics, Native Americans, Asians, Handicapped, Aged, et al. theatre artists have chronicled these social eruptions, and their works illuminate these historical and social developments with insight and passion. Through the playwright's lens, we can gain insight and understanding into both the arts of the theatre and significant contemporary social manifestations. *Human Diversity*.

DRA 318 African American Theatre II (3-0-3). Prerequisite: **DRA 216**. Explores in greater depth the topics, theatres, playwrights, and themes introduced in **DRA 216** "African American Theatre." *African-American Experience*, *Human Diversity*.

DRA 319 Nonwestern Culture: Theatre of the East (3-0-3). Survey of non-Western theatre forms, exploring the classic theatre of India, Japan, China, and Indonesia. The course will include lectures on and films of Kabuki, Chinese Opera and other Asian productions, as well as hands-on experience with Indian, Indonesian, Japanese and Chinese puppets. *Nonwestern Culture and Civilization*.

DRA 321 Contemporary Drama (4-0-4). Prerequisite: **DRA 111** or permission of instructor. Survey of dramatic literature post-World War II to the present with emphasis on new trends in the theatre; lectures, readings, demonstrations; where possible, attendance at productions.

DRA 325 Intermediate Acting (4-0-4). Prerequisite: **DRA 225**. Study of and experimentation with theories of characterization and role preparation; study of voice and movement.

DRA 326 Voice and Movement (4-0-4).
A study of conventional, period, and abstract stage movement in association with a study of voice improvement and standards used in various styles of theatre.

DRA 331 Principles of Directing (4-0-4). Prerequisite: **DRA 225**. Study of various conceptualizations of the director's role; fundamental consideration of play analysis, rehearsal and production procedures, and essentials of directing techniques.

DRA 332 Advanced Directing (4-0-4). Prerequisite: **DRA 331**. Detailed study of directing theories and techniques, applications to scenes directed in class, in-class analysis and criticism.

DRA 351 Theatre Makeup (3-0-3).
Study and practice in the art and science of the use of theatrical makeup for the legitimate stage, film, and television.

DRA 352 Creative Dramatics (3-0-3).
Theories and methods of developing the creative capacities through original dramatization, freeing the imagination to create plays spontaneously or from literature; practice in workshop. Valuable course for majors in Elementary Education.

DRA 353 Children's Theatre (3-0-3).
Study of theory and methods of producing plays for children; scriptwriting analysis and adaptation; rehearsal and production procedures.

DRA 354 Puppet Production (3-0-3).
A study of various types of puppetry, construction, and design methods; manipulation, scripting and producing.

DRA 371 Scene Design I (4-0-4).
A study of research methods for theatre design, including the compilation of a reference file, the drafting techniques used to produce working drawings for scenic construction, and perspective drawing and rendering techniques used in set design.

DRA 372 Scene Design II (4-0-4). A study of the design of the single-set play and the design of the multiset play.

DRA 381 Theatre Organization and Management (4-0-4). Prerequisite: **DRA 111**. Study of organizational patterns and management theories and practices in educational, community, and professional theatre; organization of personnel; publicity/promotion; fiscal operations; familiarization with theatre unions and contracts.

DRA 391 Costume History and Design (3-0-3). Study of period, fashions, research, presentation, and design techniques.

DRA 425 Advanced Acting (4-0-4). Prerequisite: **DRA 325**. Study of acting styles and the performance characteristics of serious drama, comedy, melodrama, and farce; experimental approaches to contemporary acting theories and techniques; emphasis on performance and audition.

DRA 451 Theatre Criticism (4-0-4). Prerequisite: **DRA 111**. Examination of major historical theories in the criticism and evaluation of drama and theatre; study of contemporary approaches to criticism.

DRA 452 3-D Makeup (4-0-4). Prerequisite: **DRA 351**. A study of the modeling, casting, and application of three-dimensional material in makeup.

DRA 461 Playwriting (4-0-4).
Prerequisite: Permission of instructor. Study of materials and forms pertinent to the creation of play scripts; methods of encoding dramatic information; exposure to theoretical writings of playwrights; lectures, discussions, practice in writing scenes and short plays for class analysis and criticism.

DRA 490 Professional Theatre Internship (4-16 credits). Prerequisite: Senior standing or permission of instructor. Majors assigned to an internship at a professional theatre in tech, design, performance, or administrative areas. Approval of Cleveland State University Dramatic Arts faculty and professional theatre staff required. Syllabi will be created to meet specific demands.

DRA 491 Comprehensive Exam (4-0-4).
Required of all graduating senior Drama majors, this course is a term-long final preparation for the career centered on comprehensive oral examination by the faculty.

DRA 494 Studio Production Lab (1-4 credits).
Prerequisite: permission of instructor. Participant will produce an original script at the Theatre Arts facility with the support of the Theatre Arts Area. Credit will be given for playwriting, directing, stage management, acting, design, and technical work. Credit hours will be assigned by instructor for each production according to the need. (May be repeated for a maximum of 8 credit hours.)

DRA 495 Drama Seminar (4-0-4).
Prerequisite: Senior standing or permission of instructor. In-depth study of selected topics in drama and theatre; may involve either

group work or individual research.

DRA 496 Independent Study (1-12 variable credits). Prerequisite: Senior standing or permission of instructor and director. Individual study and research of a topic of interest to the student.

Economics Courses

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Faculty

Professors: Myong-Hun Chang (Chairperson); **Professors Emeriti:** Diran Bodenhorn, Karl B. Bonutti, John F. Burke Jr., Leonard Martin, Vijay K. Mathur, Harvey S. Rosen, Clinton Warne; **Associate Professors:** Jon D. Harford, Sheldon H. Stein, Douglas O. Stewart, Allan J. Taub; **Associate Professor Emeritus:** Edward B. Bell; **Assistant Professors:** Sebastien Buttet, Vasilios Kosteas.

Course Descriptions

ECN 201 Principles of Macroeconomics (3-0-3).
Introductory course in macroeconomic theory: national accounting, levels of output and employment, money supply, government monetary and foreign exchange, and the international monetary system. *Social Science*.

ECN 202 Principles of Microeconomics (3-0-3).
Introductory course in microeconomic theory: pricing, resource allocation, distribution, current domestic economic problems, international trade, and alternate economic systems. *Social Science*.

ECN 221 Introduction to Mathematical Methods in Economics (3-0-3). Prerequisite: high-school algebra. Introduction to mathematical tools necessary for the effective study of economic theory and econometric models. Cannot be used for elective credit to satisfy major-field requirements.

ECN 230H Game Theory and the Social Sciences - Honors (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. This course is an introduction to game theory and its application to social sciences. The main focus is on developing the basic tools of game-theoretic modeling and analysis through lectures and exercises and putting these tools to work by applying them to issues that arise in many diverse areas of the social sciences. The ultimate purpose is to enable the students to understand various social phenomena as the logical outcomes of individually rational and strategically motivated choices. Students who are taking or have taken ECN 494/694/794 (Special Topics: Game Theory and Business Strategy) are not permitted to take this course. *Mathematics and Logic*, *Social Science*.

ECN 301 Intermediate Macroeconomics (3-0-3). Prerequisites: **ECN 201** and **ECN 202** or equivalent. Determinants of aggregate economic variables such as GDP, unemployment, inflation, interest rate, exchange rate and trade balance.

ECN 302 Intermediate Microeconomics (3-0-3). Prerequisites: **ECN 201** and **ECN 202** or equivalent. Systems for allocating resources among competing wants, prices as a rationing mechanism, consumer choice, business behavior under various market situations, markets for capital and labor, general equilibrium and welfare economics.

ECN 311 Economic History of the United States (3-0-3). Economic development of agriculture, commerce, money and banking, industry, labor, and government.

ECN 316 Comparative Economic Systems (3-0-3). Prerequisites: **ECN 201** and **ECN 202** or equivalent. American capitalism compared with socialism, communism, and other planned economies.

ECN 322 Statistics and Econometrics (3-0-3). Prerequisite: **MTH 147** or equivalent. Development of statistical theory and its application to econometric models, including simple, multiple, and nonlinear regression and correlation; derivations of some important sampling distributions and their application in economics and business.

ECN 330 Managerial Economics (4-0-4). Prerequisite: **ECN 302**. Applications of economic theory and methodology to decision-making problems of business and public institutions. The course deals with microeconomic concepts, such as demand, demand forecasting, production, costs, pricing practices, and capital budgeting.

ECN 333 Economics of Health Care (4-0-4). Prerequisite: **ECN 202** or equivalent. Overview of health and the features of medical-care markets; economic analysis of demand for medical care including the role of uncertainty and insurance on demand; supply of medical care and the role of doctors, hospitals and insurance on supply side; organizational form of health-care markets and policy issues in financing and resource allocation; international dimensions of health-care issues.

ECN 350 Economics of Crime and Punishment (4-0-4). Prerequisite: Junior standing. Trends in criminal activity, data and data sources; economic impact on society of criminal activity; economic analysis of criminal behavior and the criminal justice system; role of deterrence including certainty and severity of punishment, and economics of victimless crimes with applications in the markets for heroin and cocaine.

ECN 355 Money and Banking (4-0-4). Prerequisites: **ECN 201** and **ECN 202** or equivalent. The role of money in economic activity, financial markets and instruments, depository financial institutions and money, the Federal Reserve System, monetary theory and policy, international banking and finance.

ECN 360 Public Sector Economics (4-0-4). Prerequisite: **ECN 201** or **ECN 202** or equivalent. Economics of the governmental or public sector in the United States; topics include the economic rationale for government, theory of public choice, public expenditure theory, analysis of selected expenditure programs, taxation theory, analysis of selected taxes and fiscal relations between governments. *Writing (effective through Summer 2006)*.

ECN 391 Consumer Economics (3-0-3).
Money management and consumer choice and protection; budgeting, saving, and borrowing; buying food, clothing, housing, insurance, and investments.

ECN 415 History of Economic Thought (3-0-3). Prerequisites: **ECN 201** and **ECN 202** or equivalent. Development of economic thought from ancient times to the present day.

ECN 433 Industrial Organization (4-0-4). Prerequisite: **ECN 202** or equivalent. Investigation of how market structure and firms'

conduct influence economic performance. Topics include oligopoly theory, entry barriers, merger activity, product differentiation, and innovation. Effects of government regulation (and deregulation) and antitrust policy will also be examined.

ECN 441 Business Fluctuations and Forecasting (4-0-4). Prerequisite: **ECN 301** or permission of instructor. Nature and causes of business fluctuations; business cycle theories; methods of forecasting GDP, inflation, and unemployment.

ECN 450 Economics of Law (4-0-4). Prerequisite: **ECN 302**. The economic concepts of public and private goods, externalities, and benefits vs. cost will be used to analyze the economic basis for and effects of property, contract, tort, and criminal law. Important cases will be discussed and issues such as the rules for determining the liability for accidents and the proper level of penalties for crimes will be explored. In addition, the trade-offs involved in the use of the legal system itself will be explored in such areas as plea bargaining, trial vs. settlement of civil cases, and various arrangements for payment of legal costs. *Writing*.

ECN 470 Urban Economics (4-0-4). Prerequisites: **ECN 201** and **ECN 202** or equivalent. Theory concerning development and growth of cities; land rent and land use patterns, suburbanization, and control; discussion of urban problems and issues such as poverty and public policy, housing market, discrimination; and local government finance.

ECN 474 Environmental and Natural Resource Economics (4-0-4). Prerequisite: **ECN 302**, or **ECN 202** and permission of instructor. Using the concepts of public goods and externalities, the causes of environmental problems will be analyzed. Regulatory approaches will be examined as to their impact and efficiency in controlling pollution and congestion. Externality and sustainability issues involving the rate of exploitation of natural resources will be explored. Both positive and normative economic reasoning will be applied to the related issues of population size, economic-ecological interactions, and future prospects for humanity. Cross-listed with ECN 574.

ECN 475 Labor Economics (4-0-4). Prerequisite: Intermediate Microeconomics (**ECN 302**). Analysis of labor market issues such as labor supply and demand, wage inequality, human capital formation, unemployment, the minimum wage, labor mobility and unions. Considers policy applications including school quality choices and the effect of health and safety regulations.

ECN 482 International Economics (4-0-4). Prerequisites: **ECN 201** and **ECN 202** or equivalent. The determinants of comparative advantage and the pattern of international trade, the gains from trade, and the effects of trade restrictions, trade growth and development, the balance of payments, the economics of exchange rates, and macroeconomics in an open economy.

ECN 485 Economics of Development and Growth (4-0-4). Prerequisites: **ECN 201** (Principles of Macroeconomics) and **ECN 202** (Principles of Microeconomics). A theoretical approach to development problems of the less developed nations; comparison of growth theories, inequality and economic development; population and growth; the impact of development on rural and urban sectors; market failures and government policies; international assistance.

ECN 494 Special Topics in Economics (1-4 credits).
Prerequisite: Permission of instructor. Course title and content may change from term to term.

ECN 496 Independent Study in Economics (1-3 credits). Prerequisite: Permission of instructor. Independent research project under faculty supervision. The course may be repeated for credit for a total of 8 credit hours.

ECN 497 Honors Essay (3-0-3).
Prerequisite: Admission to the honors program. Required of all honors students in economics. Directed research supervised by the Honors Essay Committee. *Writing*.

Education Courses

Course Areas

- **Curriculum and Foundations**
- **Teacher Education**
  - **Early Childhood Education**
  - **Literacy Development and Instruction**
  - **Middle Childhood Education**
  - **Multi-Age Instruction**
  - **Secondary Education**
  - **Special Education**
- **Specialized Study and Field Experiences**

Curriculum and Foundations Courses

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Faculty

Professors: William Beasley, Francine Peterman, Rosemary Sutton; **Professors Emeritae:** Elyse S. Fleming; **Professors Emeriti:** David Adams, Frank Johns, Robert MacNaughton, Carol A. Takacs, Sam P. Wiggins; **Associate Professors:** Joshua G. Bagaka's, Jim Carl (Chairperson), Sanza Clark, Jeremy Genovese, Lih-Ching Chen Wang, Brian Yusko; **Associate Professors Emeriti:** Floyd M. Adams, Gordon E. Samson; **Assistant Professors:**
Ronald Beebe, Marius Boboc, Anne Galletta, Brian Harper, Rollin Nordgren, Mehmet Ozturk, Graham Stead, Selma Vonderwell, Dwayne Wright; **Clinical Assistant Professors:** Diane Corrigan, Susan Rakow; **Visiting Instructor:** Vic Higgins.

Course Descriptions

EDB 101 Developmental Reading (4 hours).
Development of reading comprehension, vocabulary, and study strategies that enhance comprehension of narrative and expository text. Emphasis on critical and analytical reading, and instruction in synthesizing and analyzing text from various academic disciplines. Course is designed to prepare students for the demands of college reading and college studying. Letter grading system used. Graduation hour.

EDB 200 Teaching as a Profession (2 hours).
Students will examine teaching as a profession - the roles and responsibilities they will encounter in the classroom, the school, and the community. Students will develop a teaching philosophy, examining why they want to be teachers, what will be expected of them in that role, and what being a professional teacher means. Offered every semester.

EDB 250 Politics of Black Education (4 hours).
Using a historical perspective, this course will examine the nature, functions, and consequences of schooling for African-Americans in both the North and South since the Civil War. Special attention will be given to the interface of schools as social and political institutions with both the larger society and African-American communities. *African-American Experience*, *Human Diversity*.

EDB 300 Educational Technology (2 hours).
Provides an introduction to instructional technology useful to teachers. Students will use and evaluate media technology, focusing on ways to effectively integrate technology and other media resources into the instructional program. Offered every semester.

EDB 301 Social Foundations of Education (3 hours). An examination of the school in its cultural context. Emphasis is on the historical, social, economic, and technological forces that shape current educational discourse. Special emphasis is placed on the role of diversity in educational decision-making. Offered every semester. *Writing*.

EDB 302 Psychological Foundations of Education (3 hours). Prerequisites: **PSY 220** and/or **PSY 221;** An analysis of the nature of human learning and development and their relationship to the process of education and to instruction. Emphasis is on current theories and research relating to the contextual nature of human learning to instructional practice. Offered every semester. *Writing*.

EDB 303 Teaching and Management in the Middle School (3 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**. Corequisite: **EDB 304**.
The primary purpose of this course is to combine educational theory with actual classroom practice. Students will identify and plan appropriate instructional strategies for diverse learners in middle-school contexts and identify appropriate classroom management skills and techniques for adolescents. Students will examine a variety of programs and strategies such as adviser-advisee, interdisciplinary team teaching, and integrated curriculum planning. A field experience will provide students with an opportunity to practice and reflect upon their own teaching.

EDB 304 History and Philosophy of the Middle School (1 hour). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**. Corequisite: **EDB 303**. This course addresses the historical and philosophical foundations of the middle school. In particular, students will examine the historical dimensions of the structure and curriculum of middle schools. Philosophical issues such as tracking, interdisciplinary curriculum, and experiential learning will be discussed.

EDB 305 Teaching and Management in the Secondary School (3 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**. The primary purpose of this course is to combine educational theory with actual classroom practice. Students will identify and plan appropriate instructional strategies for diverse learners and secondary school contexts and identify appropriate classroom management skills and techniques for secondary students. Students will examine a variety of classroom management techniques and develop a disciplinary unit of instruction to implement. A field experience will provide students with an opportunity to practice and reflect upon their own teaching.

EDB 400 Classroom Assessment (2 hours). Prerequisite: **EDB 303** or **EDB 305**. This course should be taken during practicum (preferable) or student teaching in the midde school Adolescent/Young Adult, Visual Arts, Music, or Foreign Language programs. Students will examine their roles as teachers, colleagues, reflective practitioners, and advocates, as they develop and communicate the results of classroom assessments to students, their parents, colleagues, and other community members. They will develop techniques for assessment of student learning that can be used to improve teaching and achievement and effective communication with students, parents, teachers, administrators, community members, and other professional educators. Students will explore methods for collaborating with other professionals to address the inequities related to differences of special need, race, class, and gender.

EDB 411 Seminar on Improving Instruction (1 to 4 hours). Prerequisite: Completion of course(s) in teaching methods in the content area or written permission of instructor. Opportunity to explore in-depth a topic of special nature with a group having similar interests. Topic explored may be under consideration as a new course and will be included in the seminar title. May be repeated in different topics. No more than eight **EDB 411** hours may be included in a degree program.

EDB 451 Individual Projects in Education (1 to 4 hours). Prerequisite: Permission of chairperson. An independent project in a

selected area of education. Project must be approved by department chairperson and adviser.

EDB 455 Women and Education (4 hours). Examination of gender bias beliefs, attitudes and values in schools and society and their effects on the aspirations and autonomy of women; multidisciplinary examination of effects of socialization process on women; consideration of possible school-based remedies to sexism. Women's Studies course. *Human Diversity*.

EDB 495 Seminar on Classroom Inquiry (3 hours). Introduces pre-service educators to the process of classroom inquiry and reflection through a collaborative action research project. Specifically, the focus is to develop methods consistent with critically reflective practices that support effective teaching and enhance student learning. By employing a systematic process of classroom inquiry, participants will learn how to develop classroom-based research by searching for relevant literature, design appropriate data collection methods, analyze, interpret and reflect upon the results, and provide a discussion of the findings related to the classroom and teacher practice. In addition, participants will also share the findings with colleagues and submit an article to the online CSU journal *Teacher Research Journal*. This course serves as the capstone course for the upper division honors program for teacher license candidates.

Specialized Study and Field Experience Courses

Course Descriptions

Without exception, appropriate authorization for enrollment in any course with an EST prefix must be obtained prior to registration. Moreover, failure to adhere to the following policies and deadlines may result in the delay of graduation by one or more semesters.

Student Teaching and Practicum Requirements:
Students must complete an on-line application for practicum or student teaching prior to registering for these experiences. Application deadlines are February 15th for Fall field experiences and September 15th for Spring field experiences. Please note that these deadlines are strictly enforced and that placements will only be given to students who have achieved an overall 2.50 cumulative grade point average and a minimum grade point average of 2.75 in the professional education sequence, with no grades below a C. Candidates for secondary and multi-age practicum and student teaching placements must also have at least a 2.50 grade point average in their major field. In addition, each EST practicum and student teaching course has specific course prerequisites and/or corequisites. Not all of these courses are listed below. Individuals should refer to their program checklist or check in the College Advising Office, RT 1401, for specifics.

NOTE: Under consideration at the present time, but not yet approved, are the following two proposals relating to Student Teaching and Practicum requirements: (1) All practicum experiences will require five half-days per week for one semester in an appropriate school placement; (2) Student teaching assignments will begin on the date when the individual's assigned school begins in August/September or January and will continue for 15 weeks.

EST 370 Practicum in Early Childhood Education (3 hours). Prerequisites: requires prior on-line application and approval of the Office of Field Services and successful completion of Portfolio Checkpoint #2, all Foundations and Curriculum & Methods courses, **EDL 300**, **EDL 301**, **ESE 415**, 5-6 remaining Literacy or Special Methods, 2.50 GPA. Requires five half-days per week for one semester, observing and teaching under the direction of a mentor teacher and a university supervisor; includes seminar. Practicum or student teaching (**EST 480**) must be in an urban classroom. Both may be urban. If Practicum is in a pre-kindergarten classroom, then Student Teaching must be in a kindergarten-grade 3 classroom. If Practicum is in a k-3 classroom, then Student Teaching must be in a pre-k classroom. Practicum and/or Student Teaching may be in an inclusive classroom. Required for early childhood teaching license.

EST 371 Practicum in Middle Childhood Education (3 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Foundations and Curriculum & Methods courses; **EDL 301**; 50% of courses in each concentration; 2.50 Cumulative GPA; 2.50 Concentration GPA; 2.75 Professional GPA. Must be taken concurrently with two methods courses as specified by program. Structured field experience designed to accompany specific methods courses and to prepare Middle-Childhood-Education majors for student teaching; stresses practical application of methods and theory with emphasis on the various roles of a teacher. Students begin formulating a personal philosophy for teaching while working four half-days per week in an upper elementary, middle-, or junior-high school classroom under the direction of a mentor teacher and a university supervisor; includes seminar. Required for middle childhood teaching license.

EST 373 Practicum in Teaching English as a Second Language (3 hours). Prior on-line application to the Office of Field Services is required. University-supervised field experience designed to provide guided practice in the application of current theory and research in ESL/EFL instruction. Students spend four half-days per week in a classroom that serves ESL students under the direction of a mentor teacher; includes seminar. Required for TESOL endorsement.

EST 374 Practicum in Foreign Language Education (3 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Foundations courses; **EDB 305**, **EDL 305**; 50% Major Field courses; 2.50 Cumulative GPA; 2.50 Major Field GPA; 2.75 Professional GPA. Must be taken concurrently with **EDC 312** and **EDC 313**. Structured field experience designed to prepare modern-language majors for student teaching; stresses the practical application of theory and research to the planning, delivery, and evaluation of instruction. Students explore the various roles of a teacher and begin formulating a personal philosophy for teaching while working four half-days per week in a school under the direction of a mentor teacher and a university supervisor; includes seminar. Placement must be different than that received for **EST 484**
so that students gain both PreK-8 and 9-12 classroom experience. Required for multi-age foreign language teaching license.

EST 377 Practicum in Special Education: Mild/Moderate Educational Needs (4 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Foundations courses and three Curriculum & Methods courses; 2.50 Cumulative GPA; 2.75 Professional GPA. University-supervised field placement that provides extended, firsthand experience in working with students who need specially designed instructional programs. Requires four half-days per week for one semester in a state-approved special education program serving students with mild/moderate disabilities; includes seminar. Required for licensure as a Mild/Moderate Intervention Specialist.

EST 378 Practicum in Special Education: Moderate/Intensive Educational Needs (4 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Foundations courses and three Curriculum & Methods courses; 2.50 Cumulative GPA; 2.75 Professional GPA. University-supervised field experience designed to provide extended, guided practice in working with students with cognitive disabilities, multiple disabilities, and/or emotional disturbances. Requires four half-days per week in a state-approved special education program that serves students with moderate/intensive educational needs working under the direction of a mentor teacher; includes seminar. Required for licensure as a Moderate/Intensive Intervention Specialist.

EST 379, 380, 381 or 382 Practicum in Secondary Education English, Math, Social Studies, or Science (3 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Foundations courses; **EDB 305**, **EDL 305**; 50% Major Field coursese; 2.50 Cumulative GPA; 2.50 Major Field GPA; 2.75 Professional GPA. Must be taken concurrently with either **EDS 313**, **EDS 315**, **EDS 316**, or **EDS 317**. Structured field experience designed to accompany secondary methods courses in English, science, mathematics, or social studies education. Prepares Secondary Education Minors for student teaching; stresses the practical application of theory and research to the planning, delivery, and evaluation of instruction. Students explore the various roles of a teacher and begin formulating a personal philosophy for teaching while working four half-days per week in a middle-, junior-high, or senior-high school classroom under the direction of a mentor teacher and a university supervisor; includes seminar. Required for secondary teaching license.

EST 480 Student Teaching in Early Childhood Education (10 hours). Prerequisites: requires prior on-line application and approval of the Office of Field Services and successful completion of Portfolio Checkpoint #3, course prerequisites listed on application including **EST 370**; 2.75 Professional GPA. Requires five full days per week for one semester, observing and teaching under the direction of a mentor teacher and a university supervisor; includes seminar. Practicum (**EST 370**) or student teaching must be in an urban classroom. Both may be urban. If Practicum is in a pre-kindergarten classroom, then Student Teaching must be in a kindergarten-grade 3 classroom. If

Practicum is in a k-3 classroom, then Student Teaching must be in a pre-k classroom. Practicum and/or Student Teaching may be in an inclusive classroom. Required for early childhood teaching license.

EST 481 Student Teaching in Middle Childhood Education (10 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: **EST 371**; 2.50 Cumulative GPA; 2.50 Concentration GPA; 2.75 Professional GPA. Must be taken concurrently with **EDB 400**. Five full days a week for one semester in an upper-elementary, middle-, or junior-high school classroom observing and teaching under the direction of a mentor teacher and a university supervisor. Required for middle childhood teaching license.

EST 484 Student Teaching in Foreign Language Education (10 hours). Prior on-line application to the Office of Field Services is required.Prerequisites include: **EST 374**; 75% Major Field courses; 2.50 Cumulative GPA; 2.50 Major Field GPA; 2.75 Professional GPA. Must be taken concurrently with **EDB 400**. Five full days a week for one semester observing and teaching under the direction of a mentor teacher and a university supervisor. Placement must be different than that received for **EST 374** so that students gain both PreK-8 and 9-12 classroom experience. Required for multi-age teaching license in foreign language education.

EST 485 Multiage Student Teaching for Music Majors (10 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: all Professional Education courses; 75% Major Field courses; 2.50 Cumulative GPA; 2.50 Major Field courses; 2.75 Professional courses. Must be taken concurrently with **EDB 400**. University-supervised student-teaching experience in two separate educational settings to provide both PreK-8 and 9-12 classroom experience. Involves observation and teaching music under a mentor teacher's direction, five full days per week for one semester. Required for multi-age teaching licensure in music. **Return to top**

EST 486 Multiage Student Teaching for Art Majors (10 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include all Foundations and Curriculum & Methods courses; 75% of Major Field courses; 2.50 Cumulative GPA; 2.50 Major Field GPA; 2.75 Professional GPA. Must be taken concurrently with **EDB 400**. University-supervised student-teaching experience in two separate educational settings to provide both PreK-8 and 9-12 classroom experience. Involves observation and teaching music under a mentor teacher's direction, five full days per week for one semester. Required for multi-age teaching licensure in art. **Return to top**

EST 487 Student Teaching for Mild/Moderate Educational Needs (12 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: **EST 377**; 2.50 Cumulative GPA; 2.75 Professional GPA. University-supervised student-teaching experience in a state-approved special education program serving students with mild/moderate disabilities; five days a week for one semester observing and teaching under the guidance of a mentor teacher. Successful completion requires demonstration of competencies necessary for licensure as a Mild/Moderate Intervention Specialist.

EST 488 Student Teaching for Moderate/Intensive Educational Needs (12 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: **EST 378**; 2.50 Cumulative GPA; 2.75 Professional GPA. University-supervised student-teaching experience in two separate state-approved special education programs: one for students with cognitive or multiple disabilities, and one for students with emotional disturbance. Five days a week for one semester observing and teaching under a mentor teacher's direction. Successful completion requires demonstration of competencies necessary for licensure as a Moderate/Intensive Intervention Specialist.

EST 489, EST 490, EST 491, EST 492
Student Teaching in Secondary Education English, Math, Social Studies, or Science (10 hours). Prior on-line application to the Office of Field Services is required. Prerequisites include: either **EST 379**, **EST 380**, **EST 381** or **EST 382**; 75% Major Field courses; 2.50 Cumulative GPA; 2.50 Major Field GPA; 2.75 Professional GPA. Must be taken concurrently with **EDB 400**. Five full days a week for one semester in a secondary school classroom observing and teaching under the direction of a mentor teacher and a university supervisor. Required for secondary teaching license.

EST 493 Special Topics in Curriculum and Instruction (1 to 4 hours). Prerequisite: May require permission of instructor. Opportunity to explore in depth, with a group having similar interest, a topic of a special nature; individual and group work in the classroom, library, or community under the direct supervision of at least one faculty member and other resource persons as necessary. In many instances, the topic explored may be under consideration as a new course or program to assure student participation in this process and will be included in the seminar title. May be repeated for a maximum of nine hours.

EST 496 Independent Study in Education (1 to 4 hours). Prerequisites: Permission of instructor and department chairperson. Independent project in a selected area of education; approval by and arrangements made with permission of the supervising instructor and the department chairperson. Independent study hours may not exceed six hours in a degree program.

Teacher Education Courses

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Faculty

Professors:
Clifford T. Bennett (Chair), Thomas W. Frew, James A. McLoughlin (Dean), Dinah Volk, Jane A. Zaharias (Associate Dean); **Professors Emeritae:** Mary A. Boehnlein, Nancy K. Klein; **Associate Professors:** Ronald J. Abate, Maria Angelova, Joanne Goodell, Kristien Marquez-Zenkov, Roland G. Pourdavood, Theresa A. Quigney, James Salzman, Judy I. Stahlman, Karl Wheatley; **Associate Professor Emerita:** Lillian R. Hinds; **Assistant Professors:** Kay E. Benjamin, Robert Ferguson, Issaou Gado, Mary K. Gove, Grace Hui-Chen Huang, Debbie Jackson, Hoe Kyeung Kim, Trisha Wies Long, Anthony Menendez, James Moore, Terri Purcell, Catherine Ross-Stroud, Scott Sowell, Kristine Still, Karen Spector, Patrick Wachira, Deborah Webster, Connie Wong, Amanda Yurick; **Clinical Assistant Professor:** Anne Price; **Term Faculty:** Ron Weitzner, Judith Poluga.

Course Areas

- **Early Childhood Education**
- **Literacy Development and Instruction**
- **Middle Childhood Education**
- **Multi-Age Instruction**
- **Secondary Education**
- **Special Education**

Early Childhood Education Courses

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Course Descriptions

ECE 300 Introduction to Early Childhood Education (3 hours). Prerequisites: **PSY 220**; Prerequisite or Corequisite: **EDB 200**, **EDB 301**, **EDB 302**
(students must be officially admitted into EC program). Survey of major models and programs that educate young children and examination of the theories that provide the foundation for such programs. Attention to the history of early childhood education and to current issues in the classroom and beyond. Satisfies *Writing* Across the Curriculum requirement.

ECE 401 Developmental Curriculum for Early Childhood Education (4 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, and **ECE 300**. Study of curriculum development for educational settings that serve children from age 3 to age 8, including typically developing children, and children with mild and moderate disabilities. Attention is given to developmental considerations and national and state subject matter standards; different curriculum theories and models as well as their implementation.

ECE 402 Teaching Methods in Early Childhood Education (4 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, **ECE 300**, and **ECE 401**. Study of teaching methods for educational settings that serve children from age 3 to age 8. Attention given to strategies for planning; organizing the learning environment; facilitating teacher-child interactions; guiding children's behavior; conducting lessons; assessing; care giving; supporting play; and addressing standards through integrated and emergent curriculum. Field placement in an early childhood classroom for 2 hours per week the last 10 weeks of semester is required.

ECE 403 Teaching Young Children with Mild and Moderate Disabilities (3 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, and **ECE 300**. Introduction to educational issues related to working in regular early childhood settings with young children who have mild and moderate disabilities. Attention is given to characteristics, etiology, classification, and legal and interdisciplinary issues, as well as to curricular and pedagogical approaches for the inclusive classroom.

ECE 412 Collaboration with Families and Professionals in Early Childhood Settings (4 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, **ECE 300**, and **EDC 300**. Explores the relationships between early childhood professionals and families, as well as with other professionals. Strategies for communicating and collaborating with others and for fostering home-school connections are examined. History, philosophy, and issues related to collaboration and family involvement, including diversity, are discussed.

ECE 415 Mathematics Instruction in Preschool and the Primary Grades (3 hours). Prerequisites: **MTH 127**, **MTH 128**, **MTH 129**, **EDB 301**, **EDB 302** and either **ECE 300** or **ESE 400**. Designed to provide students with the opportunity to consider and evaluate the philosophy, principles, practices, and problems in preschool and primary grades with special focus on mathematics instruction. The students will engage in mathematics activities as a basis for reflecting on learning and teaching mathematics that is culturally responsive. The students will examine various facets which lead to making decisions with regard to a learning environment best adapted to the abilities and needs of the students as mathematics learners. Other areas of focus will be integration of history, culture, and the appropriate use of technology in the teaching and learning of mathematics.

ECE 416 Social Studies Instruction in Preschool and the Primary Grades (3 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, and **EDC 300**; also **ECE 300**
if seeking Early Childhood license. Objectives, principles, trends, materials and current practices for teaching social studies and fostering social development in early childhood education. This course will focus on developmentally appropriate content and strategies for introducing young children to the study of history, geography, economics, and other social sciences.

ECE 417 Science Instruction in Preschool and the Primary Grades (3 hours). Prerequisites: **EDB 200** , **EDB 301**, **EDB 302** and either **ECE 300** or **ESE 400**. The nature, scope, and role of science experiences in the learning and development of young children with emphasis given to a constructivist, inquiry-oriented approach consistent with national standards. Various activities, investigations, and discussions will be drawn from physical, biological, and earth science.

Literacy Development and Instruction Courses

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Course Descriptions

EDL 300 Phonics Assessment and Instruction (3 hours). Prerequisites: **EDB 200, EDC 300**. Prerequisite or Corequisite: **EDB 200**, **EDB 300**, **EDB 301** and **EDB 302**. Focuses on the nature and role of word recognition in proficient reading and spelling. Provides the background necessary for teaching and assessing phonics, phonemic awareness, and word recognition.

EDL 301 Beginning and Intermediate Reading Instruction and Assessment (3 hours). Prerequisites: **EDB 200, EDC 300**. Prerequisite or Corequisite: **EDB 200**, **EDB 300**, **EDB 301** and **EDB 302**. Survey of methods and materials used to teach reading in elementary and middle school settings. Includes overview of the reading process, introduction to diagnostic measures for assessing reading development, techniques for remediating reading difficulties, and critical examination of related theory and research. Satisfies *Writing Across the Curriculum* requirement.

EDL 305 Content Area Literacy (3 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**, (except Music Education students). Critique and analysis of current theory, research, and practice as it relates to content-area reading instruction. Particular attention is given to the development of comprehension, metacognitive awareness, and effective study strategies. Also stressed are internal and external textbook-thinking skills, the integrated use of reading and writing, and materials and methods to promote lifelong learning. Other topics considered include media literacy, inquiry learning, authentic assessment, action research, and diversity issues. Required for reading endorsement.

EDL 311 Emergent Literacy (3 hours). Prerequisites: **ECE 300** (Early Childhood students only), and **EDL 301**. Examines theory, research, and practice as it pertains to the processes by which young children learn to read and write in day care, preschool, and primary classrooms. Consideration of language, literacy, and concept development, with emphasis on factors that influence children's growth in these areas. Addresses the relationships between thought and language, as well as integrative methods for language-arts instruction and assessment that build on these relationships and contribute to the acquisition of literacy during early childhood.

EDL 312 Literature-Based Reading Methods for Children (3 hours). Prerequisites: **EDB 200**, **EDB 302**. Focuses on techniques for using classic, contemporary, and multiethnic children's literature of all genres to support reading acquisition and instruction in preschool and the primary grades, with particular attention given to teaching methods using literature. Other topics for discussion include the evaluation and selection of appropriate trade and picture books for classroom use, the application of children's literature to content area instruction, and the role of children's literature in family literacy and recreational reading programs. Satisfies *Writing Across the Curriculum* requirement.

EDL 313 Literature-Based Reading Methods for Adolescents (3 hours). Prerequisites: **EDB 200**, **EDB 302**. Focuses on techniques for using classic, contemporary, and multiethnic literature of all genres to support reading instruction in grades 4 through 12. Emphasizes the developmental nature of reading preferences and comprehension, the application of reader-response theory to the selection and design of teaching strategies and materials, the potential use of literature across the curriculum, and criteria for selecting and evaluating trade books for young adults.

EDL 402 Foundations of Literacy: Theory and Practice (3 hours). Prerequisite: Permission of instructor. Explores the linguistic, psychological, social, cultural, philosophical and historical bases of literacy acquisition and its development. Particular emphasis is given to current research and classroom practice. Required for reading endorsement.

EDL 403 Assessment and Evaluation of Diverse Literacy Learners (4 hours). Prerequisites: **EDL 402** and permission of instructor. Assessment and evaluation of literacy development, with a focus on reading, writing, and complementary language-arts processes for students of all ages. Consideration of linguistic, affective, cognitive, and physical factors that may influence encoding, decoding, comprehension, and composition and their evaluation. The construction, administration, interpretation, and critique of formal and informal assessment procedures are addressed. Course includes supervised, weekly, practical experience with an assigned client resulting in development of a case study. Required for reading endorsement.

EDL 404 Literacy Development: Meeting the Needs of Diverse Learners (4 hours). Prerequisites: **EDL 403** and permission of instructor. Supervised practice in teaching reading and writing with emphasis given to the preparation, analysis, and evaluation of individualized instructional programs based on case study evaluations. Includes approaches for developing positive attitudes toward literacy and strategies aimed at overcoming difficulties in reading and writing development. Course requires preparation of a progress report based on weekly practical experience with an assigned client. Required for reading endorsement.

EDL 406 Second Language Learning and Pedagogy (3 hours). The first of a two-course sequence in ESL/EFL pedagogy, this course covers theories of second-language acquisition, competing methods for teaching English to speakers of other languages, psycholinguistics, sociolinguistics, and issues involving language learning in multicultural settings. Required for TESOL endorsement.

EDL 407 TESOL Methods (3 hours). The second of a two-course sequence in ESL/EFL pedagogy, this course provides critical exploration and analysis of current approaches for teaching English to speakers of other languages with particular emphasis given to the development of communicative competence. Consideration of the role of assessment in instructional design, student placement, and advancement, as well as related legal issues. Required for TESOL endorsement.

EDL 408 Applied Linguistics for Teachers (3 hours). Designed for practicing and prospective teachers, this course provides an introduction to linguistic theory as it relates to the language development of native and non-native speakers of English. Emphasis is given on the practical application of linguistic knowledge in phonetics, phonology, syntax, morphology, and semantics to classroom practice. Required for TESOL endorsement.

EDL 409 Assessment and Evaluation in the ESL/Bilingual Classroom (3 hours). This course will explore the notion of second-language proficiency and help students develop an understanding of how they can assess or evaluate LEP (limited English proficiency) students' progress in the development of proficiency. Addresses topics of formal and informal methods of assessing language

proficiency, test preparation, and interpretation of test results. Students will have a chance to practice creating authentic assessment tasks. Required for TESOL endorsement.

EDL 410 Pedagogical Grammar (3 hours). This course provides foundational knowledge of the history and structure of the English language and explores a variety of approaches to teaching grammar in the ESL/EFL classroom. Reviews the historical development of English and explains many of the irregular aspects of the language. The major focus of the course is on the grammatical structures of English and their functions in communication. An experiential, discussion-based course appropriate for all students interested in improving their knowledge about teaching English grammar. Required for TESOL endorsement.

Middle Childhood Education Courses

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Faculty

Course Descriptions

EDM 313 Teaching and Assessing Language Arts in the Middle School (4 hours). Prerequisites: **EDB 303**, **EDB 304**, **ESE 404**, and **EDL 301**. Concurrent enrollment in **EST 371**. Critical exploration and analysis of student-centered methods that encourage integrated study of the language arts. Areas of study include pragmatic and theoretical aspects of reading, writing, listening, viewing, and oral language development during early adolescence - especially as they apply to the selection of objectives, strategies, and materials for instruction and the evaluation of pupil progress. Satisfies *Writing Across the Curriculum* requirement.

EDM 315 Teaching and Assessing Mathematics in the Middle School (4 hours). Prerequisites: **EDB 303**, **EDB 304**, **ESE 404**, **EDL 301**, **MTH 326**, and **MTH 329**. Concurrent enrollment in **EST 371**. Provides opportunities for the prospective mathematics teacher to gain experience in preparing, teaching and assessing problem-centered standards-based lessons. Focuses on materials and strategies for teaching and assessing mathematics at the middle-childhood level. Also considered are student characteristics, teaching and learning styles, issues of equity and diversity, constructivist theories of learning and the history of mathematics. Extensive use of technology is integrated throughout.

EDM 316 Teaching and Assessing Social Studies in the Middle School (4 hours). Prerequisites: **EDB 303**, **EDB 304**, **ESE 404**, and **EDL 301**. Concurrent enrollment in **EST 371**. Explores concepts, purposes, and underlying assumptions of teaching the social sciences; develops activities to improve children's understanding of democratic citizenship in a pluralistic society; addresses interdisciplinary curriculum linkages.

EDM 317 Teaching and Assessing Science in the Middle School (4 hours). Prerequisites: **EDB 303**, **EDB 304**, **ESE 404**, and **EDL 301**. Concurrent enrollment in **EST 371**. Introduction to science instruction and assessment in upper elementary, middle, and junior high school settings; provides background and principles of science education, including instructional planning, methods and materials, integration of technology, nature of current research in science education and its role in guiding science instruction and assessment, best practices in science education and a philosophy for teaching science.

Multi-Age Instruction Courses

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Course Descriptions

EDC 300 Diversity in Educational Settings (3 hours). Focuses on issues related to the education of culturally and linguistically diverse children, gifted children, and children with special needs. Gender issues in education and the relation of diversity to all areas of the teaching-learning process are discussed. Course work involves the development of effective strategies for teaching all children about diversity and for promoting positive relationships among teachers, parents, and children. Satisfies *Human Diversity* requirement.

EDC 309 Art Methods for the Classroom Teacher (2 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**, and **ART 252** or **253**. Offers techniques for teaching expressive and responsive dimensions of the visual arts to young children and individuals with special needs.

EDC 310 Elementary Methods for the Art Specialist (4 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, and **EDB 302**. Prerequisite or Corequisite: **EDB 305**
(open only to Art Education majors). Provides a series of learning experiences that develop knowledge and skills relative to planning, implementing, and evaluating art programs for children in the elementary grades.

EDC 311 Secondary Methods for the Art Specialist (4 hours). Prerequisites: **EDC 310**, **EDB 200**, **EDB 300**, **EDB 301**, and **EDB 302**. Prerequisite or Corequisite: **EDB 305**
(open only to Art Education majors). Class sessions, studio laboratory work, and school-site experiences that develop the necessary knowledge and competencies for planning, implementing, and evaluating art programs in the secondary school.

EDC 312 Foreign Language Education in the Elementary Schools (2 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**, **EDB 305**, **EDL 305**, and oral competency in the target language; must be taken concurrently with **EDC 313** and **EST 374**. Structured field experience. Consideration and evaluation of the philosophy, practices, and problems of teaching modern foreign languages and cultures at the elementary level, with emphasis on lesson planning, implementation, and evaluation.

EDC 313 Foreign Language Education in the Secondary Schools (2 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, **EDB 305**, **EDL 305**, and oral competency in the target language; must be taken concurrently with **EDC 312** and **EST 374**. Techniques and materials for teaching modern foreign languages and cultures at the secondary level, with emphasis on lesson planning, implementation, and evaluation.

EDC 418 Physical Science for the Classroom Teacher (3 hours). Consideration of topics within physics, chemistry, and earth/space science. Emphasis will be given on enhancement of the science content, knowledge of the future, and practicing elementary- and middle-school teachers. Course combines lecture and discussion with hands-on activities thereby modeling appropriate instructional practices.

EDC 419 Outdoor Science for the Classroom Teacher (3 hours). Provides a wide variety of outdoor learning experiences to develop environmental awareness through sensory exploration. Models appropriate instructional practice through lecture, discussion, and field work that actively engages the learner in scientific inquiry.

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Faculty

Course Descriptions

EDS 313 Secondary Language Arts Instruction and Assessment (4 hours). Prerequisites: **EDB 305** and **EDL 305**. Concurrent enrollment in **EST 379**. Critical exploration and analysis of current developments in the teaching of secondary English with emphasis on student-centered methods that encourage integrated study of the language arts. Pragmatic and theoretical aspects of language, literature, and composition instruction are considered - especially as they apply to the selection of objectives, strategies, and materials for instruction and evaluation. Areas of study include reading and writing development, the writing process, the processes involved in reading literary works, oral language and listening skill development, as well as formative and summative techniques for assessing pupil progress. Satisfies *Writing Across the Curriculum* requirement.

EDS 315 Secondary Mathematics Instruction and Assessment (4 hours). Prerequisites: **EDB 305** and **EDL 305**. Concurrent enrollment in **EST 380**. Provides opportunities for the prospective mathematics teacher to gain experience in preparing, teaching and assessing problem-centered standards-based lessons. Focuses on materials and strategies for teaching and assessing mathematics at the intermediate and secondary level. Also considered are student characteristics, teaching and learning styles, issues of equity and diversity, constructivist theories of learning and the history of mathematics. Extensive use of technology is integrated throughout.

EDS 316 Secondary Social Studies Instruction and Assessment (4 hours). Prerequisites: **EDB 305** and **EDL 305**. Concurrent enrollment in **EST 381**. Explores concepts, purposes, and underlying assumptions of teaching and assessing social sciences; develops activities to improve intermediate and secondary student's interest and competence in democratic citizenship in a pluralistic society; addresses interdisciplinary curriculum linkages.

EDS 317 Secondary Science Instruction and Assessment (4 hours). Prerequisites: **EDB 305** and **EDL 305**. Concurrent enrollment in **EST 382**. Introduction to science instruction and assessment in today’s intermediate and secondary schools; provides background and principles of science education, including instructional planning, methods and materials, integration of technology, nature of current research in science education and its role in guiding science instruction and assessment, best practices in science education and a philosophy for teaching science.

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Course Descriptions

ESE 400 Introduction to Special Education (4 credits). Prerequsites or Corequisites: **EDB 200**, **EDB 301** and **EDB 302**. An introduction to the profession of special education with information regarding the characteristics of persons with the various disabilities included in IDEA. Students learn historical and legal issues regarding special education; to identify, plan, and implement a variety of instructional strategies; and information on the concepts of Praxis II and to the profession.

ESE 402 Introduction to Individuals with Mild/Moderate Educational Needs (4 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, and **ESE 400**. History, theoretical foundations, and practices related to the social, emotional, and learning characteristics of individuals with mild/moderate disabilities. Includes presentations of diagnostic approaches and educational and social policies relative to these exceptionalities. Required for licensure as an Intervention Specialist for Students with Mild/Moderate Educational Needs.

ESE 403 Introduction to Individuals with Moderate/Severe Educational Needs (4 hours). Prerequisites: **EDB 200**, **EDB 301**, **EDB 302**, and **ESE 400**. Examination of the learning and behavioral characteristics of individuals with moderate and severe disabilities from birth through adulthood; exploration of implications for a comprehensive service delivery system and trends in best practices, both current and historical. Required for licensure as an Intervention Specialist for Students with Moderate/Severe Educational Needs.

ESE 404 Teaching Students of Varying Abilities (3 hours). Prerequisites or Corequisites: **EDB 200**, **EDB 301**, and **EDB 302** (except for Music Education students). Survey of educational issues related to serving individuals with disabilities as well as those considered to be gifted and talented. Includes an introduction to the characteristics, etiology, classification, incidence, and learning potential of students with special needs, as well as the legal aspects involved in teaching these students. Addresses methods for accommodating learners of varied ability within the regular classroom through alteration of the environment, curriculum, and instruction. Required for Middle Childhood and Adolescent Young Adult Licensures. *Writing*.

ESE 410 Diagnostic Assessment and Multifactored Evaluation for Students with Moderate and Severe Disabilities (2 credits). Prerequisite: **ESE 400**. Students will acquire competencies associated with norm and criterion-referenced assessment and understand the conditions under which assessments should be planned and conducted. Students will gain competency with the interpretation and analysis of assessment information.

ESE 411 Classroom Management and Intervention for Severe Behavior Problems (4 hours). Prerequisite: **ESE 400**. Includes approaches to classroom management that foster productive social interactions and are most compatible with instructional goals. Also examines the characteristics and causes of various severe behavior problems and research-based techniques for intervention. Required for licensure as an Intervention Specialist for Students with Mild/Moderate and Moderate/Severe Educational Needs.

ESE 412 Collaboration and Partnerships Among Parents and Professionals in Special Education (4 hours). Prerequisite: **ESE 400**. Highlights research and productive strategies for establishing successful collaborative relationships with parents of children with disabilities, paraprofessionals, and other professionals. Fosters sensitivity to the needs of culturally and linguistically diverse families. Emphasis on collaboration and partnerships with other professionals, paraprofessionals, and parents as team members designing, implementing, and evaluating appropriate educational experiences for persons with disabilities. Required for all Intervention Specialist licenses in special education.

ESE 413 Supporting Medical and Intensive Educational Needs (4 hours). Prerequisite: **ESE 403**. Overview of medical disabilities and the educational implications for children with medical- and/or health-care needs. Analysis of strategies for cross-disciplinary assessment, planning, technology use, and program implementation, including such disciplines as physical, occupational, and speech therapy; psychology; and other health-related fields.

ESE 415 Assessing Young Children (4 hours). Prerequisites: **ECE 300** (for Early Childhood students), **ECE 403**. Provides a basic understanding of the components of developmental screening, child assessment, child identification, and program evaluation for children "at-risk" and those with disabilities from birth through age 8. Assessment and evaluation focus on child and family variables. Construction of Individualized Education Programs (IEPs) and Individualized Family Service Plans (IFSPs) are stressed.

ESE 416 Life Skills and Career Planning in Special Education (2 hours). Prerequisite: **ESE 402**. Study of appropriate curriculum, instructional techniques, methods, and materials for the development of vocational, career, and functional living skills in students with mild/moderate disabilities. Addresses planning for the transition from secondary education to work, postsecondary education, and community involvement. Required for licensure as an Intervention Specialist for Students with Mild/Moderate Educational Needs.

ESE 419 Life Skills Assessment, Curriculum, and Instruction (4 hours). Prerequisite: **ESE 403**. Exploration of issues related to assessment, functional curriculum theory, Individualized Education Program (IEP) development, choice of teaching objectives, use of technology, and procedures for implementation of quality functional programs for individuals with mental retardation, multiple disabilities or emotional disturbance. Topics include task analysis, prompting procedures, classroom structure, and monitoring of ongoing progress. Required for licensure as an Intervention Specialist for Students with Moderate/Severe Educational Needs.

ESE 420
Assessment, Curriculum, and Instruction to Meet the Academic and Behavioral Needs of Students with Moderate/Severe Educational Needs (4 hours). Prerequisite: **ESE 403**. Exploration of issues related to assessment, curriculum theory, Individualized Education Program development, and academic and behavioral approaches for individuals with emotional disturbance or multiple disabilities. Emphasis on teaching academic skills, and social and emotional behaviors. Required for licensure as an Intervention Specialist for Students with Moderate/Intensive Educational Needs.

ESE 421 Assessment for Instructional Needs (four credits). Prerequisite: **ESE 402**. The focus of this course is the administration

and interpretation of formal and informal assessment tools for students with mild/moderate disabilities. The course emphasizes the direct link between assessment and the design of appropriate instruction. Course assignments will require students to make decisions in selecting and administering assessments as well as developing appropriate educational plans for children with disabilities based on assessment outcomes. Clinical or field experience required.

ESE 422 Assessment-Based Curriculum and Instruction for Students with Mild/Moderate Disabilities (four credits). Prerequisites: **ESE 402**, and **ESE 421**. The focus of this course is on the development and utilization of appropriate assessment-based curriculum and instruction for individuals with mild/moderate educational needs. Participants in this course will develop an understanding of the relationships among assessment issues, learning environments and instructional practices employed in learning environments for students with disabilities. Clinical or field experience required.

Please see also the following EST courses:

- **EST 377** Practicum in Special Education: Mild/Moderate Educational Needs
- **EST 378** Practicum in Special Education: Moderate/Severe Educational Needs
- **EST 487** Student Teaching for Mild/Moderate Educational Needs
- **EST 488** Student Teaching for Moderate/Severe Educational Needs

Electrical and Computer Engineering Courses

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- **Course Descriptions**
- **To Electrical Engineering Major**
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Faculty

Professors: Charles K. Alexander, Vijaya K. Konangi, George L. Kramerich, F. Eugenio Villaseca, Fuqin Xiong (Chairperson);
Associate Professors:
Pong P. Chu, John F. Donoghue, Yongjian Fu, Zhiqiang Gao, Murad Hizlan, Dan Simon, Ana Stankovic, Siu-Tung Yau, Chansu Yu;
Assistant Professors: Lili Dong, Nigamanth Sridhar, Wenbing Zhao, Ye Zhu; **Adjunct Faculty:** Tien-Li Chia, Louis R. Nerone, Robert Romanofski; **Emeritus Faculty:**
James H. Burghart, Manju Ghalla Goradia, Eugene A. Klingshirn, James E. Maisel, A. Haq Qureshi, Ronald G. Schultz.

Course Descriptions

EEC 310 Electric Circuits (4-0-4). Prerequisite or corequisite: **ESC 250**. Basic electrical concepts; network theorems; circuit laws; resistance, capacitance, inductance, response of RC, RL and RLC circuits to initial conditions and constant forcing functions. AC steady-state analysis and AC power. Integration of computer applications using SPICE.

EEC 311 Electric Circuits II (4-0-4). Prerequisites: **EEC 310**, **ESC 250**, and a grade of C or better in EEC 310. Prerequisite or corequisite: **PHY 244**. Continuation of **EEC 310**. Polyphase AC circuits; magnetically-coupled circuits; frequency response and resonance; two-port networks; Laplace transform analysis of circuits; transfer functions, poles and zeros; convolution; Fourier series and Fourier transform analysis; integration of computer applications using PSPICE.

EEC 313 Electronics I (4-0-4). Prerequisites: **ESC 250**, **EEC 310**. Prerequisite or corequisite: **EEC 311**. Rectifier diodes and applications; Zener diodes and applications; biasing BJT and FET amplifiers; small signal analysis of BJT and FET amplifiers; power amplifiers.

EEC 314 Electronics II (4-0-4). Prerequisites: **EEC 311**, **EEC 313**. Corequisite: **EEC 315**. Operational amplifiers and op-amp applications; active filters; oscillator circuits; amplifier frequency response.

EEC 315 Electronics Laboratory (0-3-2). Prerequisites: **EEC 311**, **EEC 313**. Corequisite: **EEC 314**. Selected experiments on electronic circuits.

EEC 316 Electronics Device Laboratory (0-3-1). Prerequisites: **EEC 311**, **EEC 313**. Selected experiments on electronic circuits.

EEC 360 Field Analysis (4-0-4). Prerequisite: **EEC 311**. The electromagnetic field quantities; derivation of Maxwell's equations; boundary conditions; power flow; propagation of plane waves in media; transmission lines, waveguides and cavity resonators; electromagnetic radiation and antennas.

EEC 361 Electromechanical Energy Conversion (4-0-4). Prerequisite: **EEC 311**. Energy storage and conversion, force and emf production, coupled circuit analysis of systems with both electrical and mechanical inputs, applications to electric motors and generators and other electromechanical transducers.

EEC 380 Digital Systems (4-0-4). Prerequisite: **EEC 311**. Prerequisite or corequisite: **EEC 313**. Binary number systems, Boolean algebra, combinational logic design principles, combinational logic design practices, sequential logic design principles, sequential logic design practices, memory elements; programmable logic devices (PLD).

EEC 381 Digital Systems Laboratory (0-3-2). Prerequisites: EE: **EEC 380**, **EEC 315**; CE: **EEC 380**, **EEC 316**. Experiments and projects on digital circuits, including basic gates, combinational circuits, flip-fops, sequential circuits, arithmetic unit and CPLD.

EEC 391H Junior Honors (Credit as arranged). Prerequisites: Junior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Student will take an existing 300-level course in the department. The course will be modified to provide additional material appropriate to an honors course. The course modifications will be arranged by mutual consent between the student, the course instructor, the student's honors adviser, and the department's undergraduate adviser. May be repeated for credit.

EEC 417 Embedded Systems (4-0-4). Prerequisites: EE: **EEC 314**, **EEC 315**, **EEC 380**, **EEC 381**; CE: **EEC 313**, **EEC 316**, **EEC 380**, **EEC 381**. Software design of microcontroller-based embedded systems. Topics covered include: microcontroller architecture, assembly programming, C programming, real time interrupts, program size considerations, input/output issues, analog-to-digital conversion, serial port reception/transmission.

EEC 421 Software Engineering (4-0-4). Prerequisite: **EEC 483**. Software process, methods and tools; phases of the software development process including requirement analysis, design, coding and testing; methods and techniques for software engineering and software project management, metrics and quality assurance.

EEC 430 Digital Signal Processing (4-0-4). Prerequisites: EE: **EEC 314**, **EEC 315**, **EEC 380**; CE: **EEC 313**, **EEC 316**, **EEC 380**. Modeling of DSP operations using discrete-time signals and systems: difference equations, Z-transforms, Fourier methods; signal sampling (A/D) and reconstruction (D/A); digital filters; sample rate converters and oversampling; DFT, fast convolution, and spectrum estimation; selected applications. Out-of-class projects done on DSP equipment in lab.

EEC 440 Control Systems (4-0-4). Prerequisites: EE: **EEC 314**, **EEC 315**; CE: **EEC 313**, **EEC 316**. Feedback control systems. Topics include: characteristics and analysis of feedback control systems; controlled system modeling; performance measures; stability; design using the root locus, frequency response, and state variable methods; characteristics of digital control loops; digital controller design using the emulation method.

EEC 441 Control Systems Laboratory (0-3-2). Prerequisite: EE: **EEC 315**, CE: **EEC 316**. Pre- or co-requisite for EE and CE: **EEC 440**. A series of control system experiments including process control using a PID controller, and modeling and digital control of a

torsion mechanism.

EEC 447 Engineering Applications of Programmable Logic Controllers (4-0-4). Prerequisites: EE: **EEC 314**, **EEC 315**; CE: **EEC 313**, **EEC 316**. Applications of PLC's including ladder logic concepts, data manipulation, analog input and output with an emphasis on PID control, network configurations and concepts, and the solution of practical industrial problems through design projects.

EEC 450 Communications (4-0-4). Prerequisites: EE: **EEC 314**, **ESC 310**; CE: **EEC 311**, **EEC 313**, **ESC 310**. Analog modulation techniques; system performance under noise; digital communication concepts; pulse and digital modulation schemes; data communication techniques; spread spectrum communications.

EEC 451 Communications Laboratory (0-3-2). Prerequisites: EE: **EEC 314**, **EEC 315**; CE: **EEC 313**, **EEC 316**. Pre- or co-requisite for EE and CE: **EEC 450**. Use of communications-specific test and measurement equipment. Experiments on spectrum analysis, noise, amplitude, frequency and phase modulation, mixers, IF amplifiers, pulse modulation, sampling, baseband modulation, optimum receivers, and amplitude-, frequency-, and phase-shift keying.

EEC 470 Power Electronics I (4-0-4). Prerequisites: **EEC 314** and **EEC 360** or **EEC 361**. Analysis, performance characterization, and design of power electronics converters using diodes, thyristors, and controllable semiconductor switches. Power supplies; DC and AC motor drives.

EEC 471 Power Electronics and Machines Laboratory (0-3-2). Prerequisite: **EEC 470**. Experiments dealing with single-phase and three-phase transformers; steady-state performance of dc, induction, and synchronous machines; rectifiers, inverters, switch-mode converters and their applications in adjustable motor drives.

EEC 473 Power Systems (4-0-4). Prerequisite: **EEC 361**. Power system components modeling: transformers, generators, transmission lines; power flow; economic scheduling of generation; power system faults and transient stability.

EEC 474 Power Electronics II (4-0-4). Prerequisite : **EEC 470**. Advanced course in Power Electronics: switching function representation of converter circuits (DC-DC, AC-DC, DC-AC and AC-AC), resonant converters, adjustable torque drives, field oriented induction motor control, residential and industrial applications, utility applications, power supply applications.

EEC 480 Modern Digital Design (4-0-4). Prerequisites: **EEC 380**, **EEC 381**. Coverage includes CPLD/FPGA devices, modern digital design methodology, VHDL hardware description language, VHDL description for combinational circuits, sequential circuits and register-transfer-level systems.

EEC 481 Digital Systems Laboratory II (0-3-2). Prerequisite: **EEC 381** and **EEC 483**. Pre- or corequisite: **EEC 480**. Experiments and projects utilizing VHDL, modern EDA software tools and CPLD/FPGA devices to design, synthesize, simulate, implement and test combinational circuits, sequential circuits and register-transfer-level systems.

EEC 482 Computer Engineering Laboratory (0-4-2). Prerequisites: **EEC 480**, **EEC 481**, **EEC 483**. Laboratory experience with engineering workstation computers, workgroup server computers, and their interconnection by means of modern high-speed network components including hubs, routers, and switches. The Internet architecture and protocols, including IP, static routing, dynamic routing (RIP, OSPF, and BGP), transport (UDP and TCP), DNS, NAT, and DHCP are stressed. The student will learn to use quantitative network performance measurement techniques for the configuration both of workstations and of network interconnection components.

EEC 483 Computer Organization (4-0-4). Prerequisites: **EEC 380**, **CIS 260**, **CIS 265**, **CIS 334**, **CIS 340**, **CIS 345**. Illustration of basic architecture concepts and control circuit implementation. Topics include basic computer organization, central processor organization, instruction set design and addressing schemes, microprogram control, input-output organization, and memory organization.

EEC 484 Computer Networks (4-0-4). Prerequisite: **EEC 483**. Network architectures, Ethernet and token passing networks, performance modeling, error detection and recovery, high-speed LANs, metropolitan area networks, and internetworking.

EEC 485 High Performance Architecture (4-0-4). Prerequisite: **EEC 483**. Architecture of high-speed computer systems with emphasis on design, analysis, and cost-performance ratios, including cache and virtual memory design, pipeline design and control techniques, vector computers, multi-processor computers and parallel algorithms.

EEC 490 Senior Design (4-0-4). Prerequisites: Communications: **EEC 450**; Controls: **EEC 440**; Digital: **EEC 381**, **EEC 480** or **EEC 483**; Power: **EEC 470**. Students are formed into small design groups (typically three students) and assigned a project. In addition to carrying out the design project, students are required to keep a design notebook, to write progress reports and a final report, and to make an oral presentation of the design effort.

EEC 491H Senior Honors (Credit as arranged).
Prerequisites: Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Student will take an existing 400-level course in the department. The course will be modified to provide additional material appropriate to an honors course. The course modifications will be arranged by mutual consent between the student, the course instructor, the student's honors adviser, and the department's undergraduate adviser. May be repeated for credit.

EEC 492 Special Topics in Electrical and Computer Engineering (4-0-4). Prerequisites: approval of instructor and academic adviser. Presentation and discussion of a current topic in electrical and computer engineering.

EEC 495 Undergraduate Research (Credit as arranged). Prerequisites: approval of research adviser and academic adviser. Participation in on-going research. Student will be involved in an original investigation. Course may be substituted for a regularly required departmental course in the curriculum.

EEC 495H Honors Research (Credit as arranged).
Prerequisites: Junior or Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Student will be involved in an engineering research or development project under the personal supervision of a faculty member. The specific responsibilities of the student will be arranged by mutual consent of the student, the student's honors adviser, and the department's undergraduate adviser. May be repeated for credit.

EEC 496 Independent Study (Credit as arranged).
Prerequisite: Approval of instructor and academic adviser. Independent study on a special topic under the guidance of a faculty member. May be repeated up to 8 credits.

EEC 499H Honors Thesis (Credit as arranged).
Prerequisites: Senior standing, Honors standing or permission of university Honors Program, and approval of student's honors adviser. Student will be involved in an engineering research or development project under the personal supervision of a faculty member. The specific responsibilities of the student will be arranged by mutual consent of the student, the student's honors adviser, and the department's undergraduate adviser. The culmination of this course is a written thesis that is approved by a committee of

departmental faculty members. The student will also present a public, oral defense of the thesis to the thesis committee. May be repeated for credit.

Engineering Science Courses

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Faculty

Engineering Science courses are common courses available to the departments of Chemical and Biomedical, Civil and Environmental, Electrical and Computer, Industrial and Manufacturing, and Mechanical Engineering, and Engineering Technology. The courses are taught in cooperation with the departments involved.

Course Descriptions

ESC 100 New Student Orientation (1-0-1).
Strategies for a successful college experience, including study habits, time management, learning styles, and the many rules and regulations to consider when working toward a degree. Includes an in-depth look at the differences between the six majors offered in the Engineering College. *Freshman Orientation*.

ESC 120 Introduction to Engineering Design (0-4-2).
Prerequisite: Placement within one of the academic colleges at Cleveland State University. An introduction to the practice of engineering design, use of hand tools, reverse engineering, the creative process, and the various career paths within engineering. Course is intended for engineering students and for any other student interested in understanding the basics of engineering design and learning about engineering as a possible career.

ESC 151 C Programming (2-2-3). Prerequisite: **MTH 168** or **MTH 181** as a prerequisite or corequisite. Fundamentals of scientific and engineering problem-solving using computers; covers ANSI C and concepts of accuracy and efficiency in programming solutions to engineering problems.

ESC 200 Engineering History and Heritage (3-0-3).
Prerequisite: none. History and heritage of civil, environmental, mechanical, electrical, industrial, manufacturing, and chemical engineering. Uses a case study approach with emphasis on northeast Ohio. Examines how constraints and considerations such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability influence engineering practice. How professional and ethical responsibility affect engineering. Places the impact of engineering solutions in a global, economic, environmental, and societal context. *Writing*.

ESC 201 Statics (3-0-3). Prerequisites: **MTH 181**, **PHY 241** or **243**. Mechanics of forces and force systems; static equilibrium, forces in structures and machines, friction, centroids, moments of inertia, radii of gyration, and virtual work.

ESC 202 Dynamics (3-0-3). Prerequisite: **ESC 201**. Motion of particles and rigid bodies subjected to unbalanced force systems; the kinematics of plane motion, relative motion, coriolis acceleration; the concept of force, mass and acceleration; work and energy, and impulse and momentum.

ESC 203 Statics and Dynamics (4-0-4). Prerequisites: **MTH 181**, **PHY 241** or 243. Statics-mechanics of forces, friction, moment of a force, free body diagrams, 2D static equilibrium. Dynamics-kinematics of particles, kinetics of particles in 2D, force and acceleration, work and energy, impulse and momentum.

ESC 211 Strength of Materials (3-0-3). Prerequisite: **ESC 201**. Study of stress, strain and stress-strain relations; stress-load and load-deformation relationships for axial, torsion and bending members; buckling of columns; combined stresses, inelastic behavior.

ESC 250 Differential Equations for Engineers (3-0-3). Prerequisite: **MTH 182** or permission of instructor. Pre- or corequisite: **ESC 150** or **ESC 151**. First-order differential equations, and linear, and nonlinear differential equations. Laplace transform techniques. Applications to engineering problems.

ESC 270 Materials Science and Engineering (3-0-3). Prerequisites: **CHM 261** and **MTH 168** or equivalent. Structure of materials and their relationship to the mechanical and physical properties of materials, applications and uses.

ESC 282 Engineering Economy (3-0-3).
Prerequisite: Sophomore standing. Course focuses on the coupling of technical analysis and economic feasibility to determine the best course of action among alternatives competing for scarce resources in both public and private sector projects. Studies the principles, concepts, and methodology of the time value of money as applied to governmental, industrial, and personal economic decisions. Topics include benefit-cost analysis, inflation, depreciation, taxes, tax abatements, risk and sensitivity analysis, and the comparison of alternatives. Discussion includes the ethical and social responsibilities of engineers as they apply to project decisions affecting job creation and loss, personnel placement, and capital expenditure. *Social Science*.

ESC 301 Fluid Mechanics (3-0-3). Prerequisite: **ESC 250**. Study of fluid properties, hydrostatics, friction loss, dimensional analysis, statics, and dynamics of compressible and incompressible fluids; continuity, energy, and momentum principles; laminar and turbulent flow; general concepts of boundary layer flow.

ESC 310 Engineering Statistics and Probability (3-0-3). Prerequisite: **MTH 182**. Concepts of statistics and probability for engineers. Probability distributions of engineering applications; sampling distributions; hypothesis testing; parameter estimation; response surface methodology.

ESC 315 Electrical Engineering Concepts (3-0-3). Prerequisites or corequisites: **MTH 182**, **ESC 250**. Solutions of linear DC and AC circuits, impedance, power, power factor correction, operational amplifiers and rotating DC and AC machines; applications to engineering situations.

ESC 321 Thermodynamics I (3-0-3). Prerequisite: **MTH 182**. Classical thermodynamic approach to systems and to control volumes containing simple compressible substances; establishment of important thermodynamic properties and their application to the zeroth, first and second laws analysis of systems and control volumes; analysis of ideal and actual gas cycles.

ESC 350 Linear Algebra and Numerical Methods in Engineering. (2-2-3). Prerequisites: **ESC 151** or equivalent computer programming language, **MTH 182**. Prerequisite or corequisite: **ESC 250**, **MTH 283**. Vectors and vector operations, matrices and determinants, eigenvalues and eigenvectors, systems of linear and non-linear equations, applications and numerical methods. MATLAB for linear algebra applications.

Engineering Technology Courses

Faculty

Associate Professors: A. Fouad Abou-Ghalioum, Robert J. Mikel, Donald F. Zeller; **Associate Professor Emeritus:** John R. Zeller; **Assistant Professors:** Harry W. Fox.

Course Areas

- **Electronic Engineering Technology**
- **Mechanical Engineering Technology**
- **General Engineering Technology**
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Electronic Engineering Technology Courses

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Faculty

Associate Professors: A. Fouad Abou-Ghalioum, Robert J. Mikel, Donald F. Zeller; **Associate Professor Emeritus:** John R. Zeller; **Assistant Professors:** Harry W. Fox.

Course Descriptions

EET 315 Microprocessor & Digital System Design (3-0-3).

EET 316 Microprocessor & Digital System Design Lab (0-3-1). Prerequisites: associate-degree-level microprocessor course and digital logic course. Architecture and hardware design of microprocessor-based system, including bus structure, interrupts handling, I/O ports, control signal, and peripherals. Combinational and sequential logic circuitry implemented with Field Programmable Gate Array design methodology. EET 316 Writing Course. *Writing*.

EET 320 Embedded Microprocessor Systems (3-0-3).

EET 321 Embedded Microprocessor Systems Lab (0-3-1). Prerequisites: **EET 315**, **EET 316**. A comprehensive understanding of the instruction set and the related programming algorithmic thought process required to design with and incorporate microprocessor-based systems in dedicated applications. Topics include serial and parallel data communication, exception processing, file transfer protocol, I/O interfacing and peripherals, and assembly language programming.

EET 330 Advanced Circuit Analysis (3-0-3). Prerequisites: associate-degree-level DC and AC circuit courses, **MTT 300**. Corequisite: **MTT 301**. Transform methods in circuit analysis, including the detailed analysis of circuits, waveforms, time-domain techniques, Laplace transform solutions, transfer functions, frequency response and Bode diagrams.

EET 410 Power Electronic Systems (3-0-3).

EET 411 Power Electronic Systems Lab (0-3-1). Prerequisites: associate-degree-level DC and AC machines courses, **MTT 301**, **EET 330**. Fundamentals of mechanics, DC machines, and AC machines reviewed. Design considerations of power electronic rectification, controlled rectification, DC chopper power modulators, and DC-to-AC inverters. Fourier series analysis of inverter waveforms and power filter design are examined. EET 411 Writing Course. *Writing*.

EET 415 Electronic Circuits, Signals, and Systems (3-0-3).

EET 416 Electronic Circuits, Signals, and Systems Lab (0-3-1). Prerequisites: associate-degree-level analog electronics courses, **EET 315**, **EET 315**, and **EET 330**. Analog electronics with applications using current integrated circuit devices. Analysis techniques of linear and non-linear systems and ideal and non-ideal device characteristics with an emphasis on practical design concepts. EET 416 Writing Course. *Writing*.

EET 430 Applications of FPGAs and VHDL (3-0-3). Prerequisites: **EET 315**, 316. Programming in Very High Speed Integrated Circuit Hardware Description Language (VHDL) that describes the inputs and outputs, behavior, and functions of circuits. Applications of logic circuitry will be implemented with Field Programmable Gate Array (FPGA) technology.

EET 440 Feedback Control Systems (3-0-3).

EET 441 Feedback Control Systems Lab (0-3-1). Prerequisite: **EET 330**. Algebraic diagram representation of open and closed loop processes. Block diagram reduction methods. Fundamental analysis methods of linear feedback controls using transfer function, time-domain, and frequency-domain methodologies. Analysis and design is also extended to non-linear processes using computer simulation methods. Simulation evaluations include closed loop tuning, dead-time process control, and electro-mechanical motion control. EET 441 Writing Course. *Writing*.

EET 450 Digital Signal Processing (3-0-3).

EET 451 Digital Signal Processing Lab (0-3-1). Prerequisites: **EET 330**. This course introduces DSP theory, with an emphasis on digital filter design and implementation. Topics covered include discrete-time system analysis, sampling theory, Z-transforms, IIR and FIR filter design techniques, and Fourier analysis. Technical Elective.

EET 460 Senior Design A (1-0-1).
Prerequisites: Senior standing and all required 300- and 400-level program courses. Planning for the capstone course, **EET 480** Senior Design B, to demonstrate the ability to define a problem in engineering terms and develop a realistic plan to complete an engineering project. A comprehensive written plan including budget, equipment requirements, time schedule, problem description, design alternatives, and tentative design will be prepared. Students are expected to extend their knowledge through self-study and research in developing and assessing design options. Ethical, legal, and environmental considerations are included. Students are encouraged to propose team projects.

EET 470 Machine Vision and Image Processing (3-0-3). Prerequisites: Senior standing and permission of instructor. Image formation, image filtering, template matching, histograms, and morphological operations applied to vision inspection system. Technical Elective.

EET 480 Senior Design B (1-5-3). Prerequisite: **EET 460**
in previous semester. Complete project development from concept and proposal submitted in **EET 460**. Final written and oral reports will be required.

EET 494 Advanced Topics in Electronics Engineering Technology (3-0-3). Prerequisite: Senior standing. Topics of current technical interest in electronics, controls, and computer industries, applying core concepts across the electronic engineering

technology curriculum.
NOTE: The content of this course changes periodically to provide the injection of recent technological topic areas and subject material into the curriculum. May be repeated for credit under different course subtitles. Technical Elective.

EET 497 Special Topics in Electronics Engineering Technology (1 to 6 credits). Prerequisite: Senior standing. Independent study on a special topic or project under the guidance of a faculty member. May be repeated for credit. Technical Elective.

General Engineering Technology Courses

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Faculty

Associate Professors: A. Fouad Abou-Ghalioum, Robert J. Mikel, Donald F. Zeller; **Associate Professor Emeritus:** John R. Zeller; **Assistant Professors:** Harry W. Fox.

Course Descriptions

GET 310 Computer System Technology (3-0-3). Prerequisites: **EET 315**, **EET 316**. Data and computer communication principles, including structure and organization, protocols, linkages and interfacing, signal and media types, coding theory, local area networks (LANs), and industrial data communication standards.

GET 320 Robotics I (2-0-2).

GET 321 Robotics I Lab (0-4-2).
Prerequisites: associate-degree-level physics, statics, dynamics, algebra, trigonometry, and calculus; or **ESC 203**, or **MET 300**. Prerequisite or corequisite: **MTT 300**. An overview of the technology, methods, and practices of robotics and mechatronics (the integration of mechanical, electrical, and computing elements), with basic details on key topics such as kinematics, mechanisms, actuators, sensors, motors, electronic hardware, controllers, and vision. Development of a math foundation in linear algebra and vectors to describe robotic configurations of various degrees of freedom. Laboratory projects to include construction of robots (e.g. LEGO Mindstorms Robots), which are driven by a microcontroller and exhibit various behaviors. Technical Elective.

GET 420 Robotics II (2-0-2).

GET 421 Robotics II Lab (0-4-2). Prerequisites: **GET 320**, **GET 321**. Corequisites: **GET 430**, **GET 431**, or **EET 440**, **EET 441**. Continued study of the technology, methods, and practices of robotics and mechatronics, with emphasis on robots in computer integrated manufacturing. Topics include drive systems, control techniques, path control, end-of-arm tooling, automation sensors, and machine vision. Laboratory projects include sensor testing, experiments with actuators and mechanisms, control scheme simulations, projects and case study problems. Technical Elective.

GET 430 Electrical Power, Controls, and Instrumentation (3-0-3).

GET 431 Electrical Power, Controls, and Instrumentation Lab (0-3-1). Prerequisites: **MTT 301** and associate-degree-level electrical fundamentals. Fundamentals of electrical and electronic power, controls, and instrumentation for Mechanical Engineering Technology students. Electric machines and control. Sensors and actuators and interfacing to PLC and PC. Feedback control theory and implementation. Automated data collection. GET 431 Writing Course. *Writing*.

GET 440 Applications of Programmable Logic Controllers (4-0-4). Prerequisites: **MTT 300** and a high-level programming language. A practical course emphasizing the use of PLCs in a wide range of industrial applications. Topics include ladder logic concepts, data manipulation, timing, discrete and analog I/O, network configuration, sequencers, and shift registers.

GET 444 HMI Applications of Programmable Logic Controllers (3-0-3). Prerequisite: **GET 440**. Develop human-machine-interface for programmable logic controller's industrial applications. HMI includes dynamic graphics, operator station control, trending, data logging, and recipes. Technical Elective.

GET 455 Robotics System Design (3-0-3). Prerequisites: **GET 320**, **GET 321**, **GET 420**, **GET 421**, and **GET 430** or **EET 440**. Design of robotics systems, including concept development, modeling, simulation, selection, and optimization of equipment, sensors, and controllers. Economic consideration, reliability and safety, and documentation of final design. Examples of robotics systems designs to be chosen from industrial and non-industrial applications. Technical Elective.

Math for Engineering Technology Courses

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Faculty

Associate Professors: A. Fouad Abou-Ghalioum, Robert J. Mikel, Donald F. Zeller; **Associate Professor Emeritus:** John R. Zeller; **Assistant Professors:** Harry W. Fox.

Course Descriptions

MTT 300 Applied Mathematics (4-0-4).
Prerequisites: associate-degree-level algebra, trigonometry, geometry, and introductory calculus. Applications of differential and integral calculus including advanced differentiation and integrations techniques as applied to engineering problems.

MTT 301 Advanced Applied Math (4-0-4). Prerequisite: **MTT 300** or equivalent. Differential equations, transient analysis, Laplace transform methods. S-plane poles and zeros are applied specifically toward program applications.

Mechanical Engineering Technology Courses

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Faculty

Associate Professors: A. Fouad Abou-Ghalioum, Robert J. Mikel, Donald F. Zeller; **Associate Professor Emeritus:** John R. Zeller; **Assistant Professors:** Harry W. Fox.

Course Descriptions

MET 300 Fundamentals of Engineering Mechanics (4-1-4). Prerequisites: associate-degree-level algebra, trigonometry, and geometry. Bridge course for associate-degree holders without familiarity with introductory level statics, dynamics, and strength of materials. Analysis of static equilibrium of trusses and frames including forces in members and joints. Section and mass properties. Static and dynamic friction. Dynamic of particles and bodies in translation or rotation. Fundamental properties of ductile and brittle metals for stress and strain. Direct stress and shear, bending stress, and torsional shear in components. Laboratory tensile test and bending deflection demonstrations.

MET 320 Advanced Mechanics of Materials (3-0-3).
Prerequisites: associate-degree-level calculus, statics, and strength of materials courses or **MET 300**. Corequisite: **MTT 300**. Stress under combined loading, stress concentration factors, design stresses, Mohr's circle, endurance limit and fatigue life, and deflection of variable section beams, method of superposition, bucking. Temperature changes and press fits. Combined stress failure theories. Selection and processing of engineering metals, plastics, and composites. Heat-treating, cold working, and residual stresses. Temperature effects on strength, creep, and ductility.

MET 330 Advanced Dynamics (4-0-4). Prerequisites: associate-degree-level calculus, statics, and strength of materials courses or **MET 300**, and **MTT 300**. Displacement, velocity and acceleration of particles and rigid bodies with combined translation and rotation. Reaction and inertia forces and mass and polar moments of inertia. Analysis by equations of motion, force-acceleration, work-energy, and impulse-momentum. Conservative and non-conservative forces and moments. Free and forced vibrations, natural frequency, and fundamentals of damping and vibration isolation.

MET 345 Thermodynamics (4-0-4). Prerequisites: associate-degree-level calculus, dynamics, and fluid power. Corequisites: **MTT 300**, **MET 320**. The study of classical thermodynamics approach to system and control volumes, properties and processes of gases and vapors, zeroth, first, and second laws of systems and control volumes. Vapor and gas power systems. Refrigeration and heat pumps systems. Ideal gas mixtures and psychometrics, reacting gases and combustion.

MET 350 Fluid Mechanics (3-0-3). Prerequisite: **MTT 300**. Corequisite: **MTT 301**. The fundamentals of fluid mechanics, including the properties of fluids, pressure, hydrostatics and dynamics of fluid flow. Laminar and turbulent flow, friction losses, and sizing of pipes. Pump section and application. Selected course topics are included as computer programming projects.

MET 351 Thermal Fluids Lab (0-3-2). Prerequisite: **MET 345**. Corequisite: **MET 350**. Laboratory experiments in selected topics in fluids flow, heat transfer, and thermodynamics. Introduction to validity of measurements, statistical analysis, error and uncertainty analysis. *Writing*.

MET 410 Design of Machine Components (3-0-3).

MET 411 Design of Machine Components Lab (0-3-1). Prerequisites: **MET 320**, **MET 330**, **MTT 301**. Design, analysis, and selection of components used in machines, including shafts, gears, clutches, brakes, bearings, fasteners, springs, and bolted and welded frames. Determination of appropriate design stresses and deflections for strength, durability, and function. Selection of materials and processing and manufacturing considerations. *Writing*.

MET 420 Heat Transfer (3-0-3). Prerequisites: **MET 345**, **MET 350**, **MTT 301**. The mechanisms of heat transfer, including conduction in one and two dimensions, forced and free convection, internal and external flows, heat exchangers, and introduction to radiation.

MET 425 Thermal Sciences for Electronic Engineering Technology (4-0-4). Prerequisites: associate-degree-level physics, **MTT 301**. Thermodynamics, heat transfer, and fluid flow principles and their applications to electronic equipment and digital devices. Topics include heat generation in printed-circuit boards and power transmission mediums, thermal resistance concepts, junction temperature, cooling and heating loads, air and liquid cooled heat sinks, thermoelectric power generation and refrigeration, dielectric heating, heat pipes and vortex tubes and their applications in electronic cooling. Technical Elective.

MET 441 Finite Element Analysis (3-0-3). Prerequisites: **MET 320**, **MET 330**, **MET 410**. This course provides an introduction to the finite element method for analysis of trusses, frames, and various machines. A finite element software package will be used to perform forces, stress, and displacement analysis, which will be compared with rigorous solutions using methods presented in statics, mechanics of materials, and machine design courses. Technical Elective.

MET 445 Solid Modeling Applications (3-0-3). Prerequisites: **MET 330**. Corequisites: **MET 410**, **MET 411**. Development and application of solid models of components and assemblies in engineering design and analysis. Use of solid models in problems related to component design, stress analysis, fluid flow, heat transfer, machine dynamics, and assembly interference. Production of engineering drawings, visual representations, and data files for machining and rapid prototyping. Accuracy and validity considerations of solid models.

MET 450 Mechanical System Design (3-0-3). Prerequisites: **MET 330**, **MET 410**, **MET 411**. Design and analysis of mechanical systems made up of gears, clutches, brakes, bearings, bolted and welded frames, considering interactions among components. Use of standard components. Determination of appropriate design stresses and deflections for strength, durability, and function. Optimization of assembly for cost, weight, durability, etc. Consideration of professional responsibilities in design. Technical Elective.

MET 460 Thermal System Design (3-0-3). Prerequisites: **MET 345**, **MET 350**. Corequisite: **MET 420**. Advanced topics of fluid mechanics, properties of fluids, pressure, hydrostatic, and dynamics of fluid flow. Design of thermal systems. Synthesis and sizing of a system design requirements. Synthesis of components of thermal systems under technical, economical, and social constrains. Technical

Elective.

MET 465 Heating, Ventilating, and Air-Conditioning (HVAC) (3-0-3). Prerequisites: **MET 345**, **MET 350**, **MET 351**. Thermodynamics of gas mixture. Control of gas mixtures, heating, cooling, and humidity. Heating and cooling loads. Design and selection of HVAC systems. Design project. Technical Elective.

MET 470 Senior Design A (1-0-1).
Prerequisites: Senior standing and all required 300- and 400-level program courses. Planning for the capstone course, **MET 480** Senior Design B, to demonstrate the ability to define a problem in engineering terms and develop a realistic plan to complete an engineering project. A comprehensive written plan including budget, equipment requirements, time schedule, problem description, design alternatives, and tentative design will be prepared. Students are expected to extend their knowledge through self-study and research in developing and assessing design options. Ethical, legal, and environmental considerations are included. Students are encouraged to propose team projects.

MET 480 Senior Design B (1-5-3). Prerequisite: **MET 470** in previous semester. Capstone course to demonstrate mastery of analysis and design techniques and engineering judgment applied to a realistic engineering problem. A comprehensive report including research, testing, and analysis results will be required along with an oral presentation. Professional, ethical, social, and legal considerations will be considered.

MET 485 Energy Conversion (4-0-4). Prerequisites: **MET 345**, **MET 350**. Introduction to global energy concerns, fossil and nuclear fuels, energy consumption analysis, energy management and conservation techniques, renewable and alternative energy sources. Modern energy conversion devices such as fuel cells, and power turbines. Technical Elective.

MET 494 Advanced Topics in Mechanical Engineering Technology (3-0-3). Prerequisite: Senior standing. Topics of current technical interest, applying core concepts across the Mechanical Engineering Technology curriculum. *NOTE:* The content of this course changes periodically to provide the injection of recent technological topic areas and subject material into the curriculum. May be repeated for credit under different course subtitles. Technical Elective.

MET 497 Special Topics in Mechanical Engineering Technology (1 to 6 credits). Prerequisite: Senior standing. Independent study on a special topic or project under the guidance of a faculty member. May be repeated for credit. Technical Elective.

English Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To English Major**
- **Back to Course Index**

Faculty

Professors: John A.C. Greppin; **Associate Professors:** Nuala Archer, Louis R. Barbato (Chairperson), Rachel Carnell, Gary R. Dyer, Gary D. Engle, P. Jeffrey Ford, Adrienne Gosselin, Jennifer M. Jeffers, F. Jeffrey Karem, Ted Lardner, David Larson, Sheila Schwartz; **Assistant Professors:** Michael Geither, James Marino, Adam Sonstegard, Stella Singer; **Term Assistant Professors:** Susan Grimm Dumbrys, Eric R. Gardner; **Director:** Neal Chandler (Creative Writing); **Program Director:** Mary Murray (Writing Center); **Professors Emeriti/Emeritae:**
Earl R. Anderson, William S. Chisholm, Cynthia Edelberg, David Evett, Barton Friedman, John C. Gerlach, Daniel C. Melnick, Glending Olson, David Richardson, Leonard M. Trawick; **Associate Professors Emeriti:** James A. Barthelmess, Harold E. Dailey, Jeffrey Ford, Matthew Hazelrig, Phillips Salman, Arnold G. Tew.

Course Descriptions

- **Freshman English and Basic Composition**
- **Basic Writing Courses**
- **Freshman English Courses**
- **Sophomore-Level Courses**
- **Upper-Division Courses**
    - **Courses on Writing and Composition Theory**
    - **Linguistics Courses**
    - **Literature Courses**

Freshman English and Basic Composition

ENG 101 and **102**
(or an approved equivalent writing course) are university-degree requirements, designed to concentrate on composition skills that are essential for success in many college courses. These courses lay the foundation for the university's Writing course requirements. Students should, therefore, enroll in ENG 101 as soon as possible in their college career. Students taking Freshman English at Cleveland State must earn a C or better in both ENG 101 and 102 (or equivalent writing course) in order to graduate.

Placement Testing:
Before enrolling in ENG 101, all students, including transfer students who have not taken Freshman English, must complete the placement process. Placement is done through ACT/SAT scores or the English Placement Exam. Students who are not ready for ENG 101 may be placed in ENG 090. Students enrolled in the Student Development Program must take the comparable exam offered by the Office of Collegiate Studies, and may be placed in ENG 085.

Placement for transfer students with ENG 101 equivalent: Transfer students who enter Cleveland State with 3 or more credits of Freshman English and are credited with ENG 101 do not have to take the placement exam; they may register for ENG 102 (or equivalent writing course).

Placement for international students or residents whose native language is not English: International students should take the English Placement Exam. If they do not place into ENG 101, they should register for ESL 096, which will prepare them for the Freshman Composition series.

ENG 101-102 as Matriculation Requirements: All students, in order to graduate from Cleveland State University, must complete the Freshman English requirement within the first 45 hours of academic work at the university by passing ENG 101 and ENG 102 (or equivalent course) with grades of C or better. Students who have not completed ENG 102 (or equivalent course) within their first 45 hours may not register for any further courses without registering for the appropriate Writing course.

Contact information :
For Freshman English: Jane Dugan, (216) 687-2532.

Basic Writing Courses

Note: ENG 085-090 do not count toward graduation.

ENG 085 Sentence Grammar and Composition (4-0-4).
Review of grammar and punctuation of standard written English, paragraphs, and introduction to the composition of essays. Pass/fail system of grading, but students receive modified letter grades: S(A), S(B), S(C), U(D), U(F). The letter grades in parentheses are not computed in the student's GPAs. Upon successful completion of this course, students are eligible to enroll in **ENG 101**. Students should contact University Studies for information about this course.

ENG 090 Introductory Writing (4-0-4).
An intensive review of the writing process intended to improve student's ability to write brief essays. Covers methods of developing ideas and emphasizes the importance of revision. Students learn essential rhetorical concepts so that they can write with a clear sense of audience and purpose. This course also provides a review of sentence grammar for those students for whom it is appropriate. Pass/fail system of grading. Upon successful completion of this course, students are eligible to enroll in **ENG 101**. Students should contact University Studies for information about this course.

English as a Second Language Courses

(**See ESL Courses page** and contact the **Division of Continuing Education** for further information (687-4850)

Freshman English Courses

ENG 101 English I (4-0-4). Prerequisite: Placement by ACT/SAT scores or Freshman English Placement Exam, or completion of **ENG 085** or **ENG 090**. Intensive guided practice in reading and analyzing expository and argumentative prose and in writing and revising essays that demonstrate coherent logical development, an ability to employ effective strategies of argument and persuasion, and a command of written English appropriate for college-level work. Writing Center assistance for this course is available by taking **ENG 105**
(2 credits). Each semester during the academic year, a special ESL section of ENG 101 is offered, open only to students whose native language is not English. *English*.

ENG 102 English II (3-0-3). Prerequisite: **ENG 101**
with a grade of C or better, or placement by ACT/SAT scores or Freshman English Placement Exam. Transfer students who are credited with ENG 101 may enroll in ENG 102 without taking the Placement Exam. Introduction to academic research and writing through intensive investigation of an issue or topic specified by the instructor. Students will be required to develop and organize a substantial research project related to the topic of the course and to demonstrate the information literacy skills required to find, evaluate, and make appropriate use of primary and secondary materials relevant to their project. Assistance for this course is available by taking **ENG 105** or **106** (2 credits). Note: students who earn an A in **ENG 101** may take **ENG 240** or **ENG 241** in lieu of ENG 102. Students who exercise this option may count the credits earned in the alternative course toward fulfillment of the Freshman English requirement and the Writing Across the Curriculum requirement. *English*.

ENG 102H English II - Honors (3-0-3).
Prerequisite: Honors standing or permission of university Honors Program. An advanced introduction to academic research and writing through intensive investigation of an issue or topic specified by the instructor. Students will be required to develop and organize a substantial research project related to the topic of the course and to demonstrate the information literacy skills required to find, evaluate and make appropriate use of primary and secondary materials relevant to their project. *English*.

ENG 105 Writing Center I (2 credits). Workshops and tutorials to assist students taking **ENG 101** or **102**; also available to students for help with writing assignments in other courses. Pass/fail grading system.

ENG 106 Writing Center II (2 credits). Prerequisite: **ENG 105**. Workshops and tutorials on writing, with topics based on the particular writing problems experienced by students. Pass/fail grading system.

Note: Students may earn no more than 4 credit hours for Writing Center courses.

Sophomore-Level Courses

Completion of ENG 101 and 102 is a prerequisite for all courses numbered ENG 201 and above.

ENG 201 Intermediate Expository Writing (4-0-4).
Practice in reading and writing non-fiction essays, with attention to audience, purpose, voice, tone, style, development, organization, and research. Students who need extra help with writing may be required to take **ENG 106** Writing Center concurrently with ENG 201. *Writing*.

ENG 204 Non-Western Literature (4-0-4).
Significant literary works representing cultures of Africa , Asia, Latin America , and the Caribbean . Includes such authors as Basho, Mo Yan, Mishima, Yosano, Ruben Dario, Borges, Garcia Marquez, Vargas Illosa, the griot Kouyate, Maran, Achebe, and Soyinka. Cross-listed with **MLA 204**. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

ENG 206 Literature and American Culture (4-0-4).
Selected works of American literature illustrating American myths central to our culture's self-conception. Includes such writers as Franklin, Thoreau, Twain, Hemingway, Ellison, and Arthur Miller. *Arts and Humanities*, *Western Culture and Civilization*.

ENG 207 African American Literature (4-0-4). Introduction to the tradition of African-American literature and its underlying historical experiences, cultural values, and modes of literary expression. *Western Culture and Civilization*, *African-American Experience*, *Human Diversity*.

ENG 207H African American Literature: The City (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. This course will examine the Black urban experience in texts by African American authors writing over the course of the 20th Century. Our scope of consideration will include migration to northern cities at the end of the Civil War, the Black Migration during the First World War and patterns of racial development, as well as racial discrimination in the Black urban community. Literary interpretation will focus on ways in which the Black community reacted to and circumvented racist legislation in urban planning and landscape. Students will learn to consider the literature within a socio-historical context. Our approach to examining literature will be interdisciplinary and literary texts will be presented in chronological order, with attention to identifying and analyzing connections between historic and contemporary issues facing urban environments. *Writing*, *Western Culture and Civilization*, *African-American Experience*, *Human Diversity (all effective Spring 2006)* .

ENG 208 Womanism/Feminism (4-0-4).
Literature reflecting the women's movement in America. Initial focus examines 19th-century bi-racial origins and ideologies to establish definitions of womanism as distinct from feminism and to frame readings of women's movements across ethnic and cultural communities in America over the 20th century. *African-American Experience*, *Western Culture and Civilization*, *Human Diversity*.

ENG 210 Native American Literature (4-0-4).
Introduction to literature by Native Americans, with emphasis on their cultural diversity and their struggle for national survival and identity. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

ENG 240 Introduction to Poetry (4-0-4).
The study of poetry written in English, with emphasis on its forms and distinctive characteristics. Students will develop their ability to analyze literary texts and to write persuasive essays about them. Particular attention will be paid to understanding some principal genres of poetry. The course will include poets, both women and men, from several different historical periods in which English verse has been composed, and poets from the diverse national/ethnic groups who have written in English. To place English poetry in the context of world literature, some poems composed in other languages will be read in translation. This course introduces English majors to research and critical techniques needed for the baccalaureate study of literature. *Alternate for **ENG 102** with approval*. *Arts*

and Humanities, *Writing*.

ENG 241 Introduction to Fiction and Drama (4-0-4). An introduction to analyzing and writing about literature, focusing on the genres of fiction and drama. Students will learn techniques for reading analytically and critically and for writing critical/research papers on fiction and drama. The course will examine the generic characteristics of a variety of types of fiction and drama, including works written in English by men and women from diverse ethnic/cultural groups and some translated works illustrating various national traditions.*Alternate for **ENG 102** with approval*. *Arts and Humanities*, *Writing*.

ENG 248 U.S. Ethnic Literature (4-0-4).
An introduction to the literature (in English or in translation) of one or more racial/ethnic minority groups in the United States , such as Puerto Ricans, Cuban Americans, Chinese Americans, Japanese Americans. Topics, texts and approaches will vary depending on the expertise of the instructor. May be taken up to three times with change of topic. *Human Diversity (effective through Fall 2006)*.

ENG 271 Shakespeare and Film (4-0-4). Essential plays of Shakespeare studied and viewed in performance on videotape. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

ENG 280 Classical Literature in Translation (4-0-4).
Survey of major literature of ancient Greece and Rome, including the Iliad , the Odyssey, Vergil's Aeneid , and other significant works by classical authors. Classical and Medieval Studies course. *Arts and Humanities*, *Western Culture and Civilization*.

Upper-Division Courses

The Handbook of Undergraduate Studies in English contains full descriptions of upper-division English courses. The handbook may be obtained in the Department of English office, Rhodes Tower 1815. English majors are advised to take ENG 240 and 241 before taking courses numbered ENG 330 and above. Equivalency rule for transfer students: one 200-level literature course, or permission of the instructor, is prerequisite for literature courses numbered ENG 300 and above. This prerequisite does not apply to linguistics courses (ENG 310-318).

Courses on Writing and Composition Theory

ENG 301 Advanced Expository Writing (4-0-4).
Discussion and practice of writing in nonfiction genres such as the essay, technical writing, and journalism. *Writing*.

ENG 302 Rhetoric of the Law (4-0-4).
Analysis of strategies used in a variety of legal contexts such as closing arguments in criminal trials or arguments before the Supreme Court.

ENG 303 Creative Writing (4-0-4).
Techniques of nonexpository writing, applicable to poetry, fiction, drama, and creative non-fiction. Non-majors are advised to take the course on a pass/fail basis.

ENG 304 Creative Writing for Teachers (4-0-4).
Poetry, fiction, and/or drama-writing with emphasis on teaching creative writing in the schools.

ENG 305 Creative Writing Workshop (4-0-4). Prerequisite: **ENG 303** or **ENG 304** or permission of instructor. Craft course in poetry, fiction, playwriting, or a specialized creative writing topic. May be taken up to three times with change of topic.

ENG 307 Style (4-0-4).
Experiments with the effects of diction, syntax, punctuation, and other linguistic tools in the creation of meaning, using the student's own writing. *Writing*.

ENG 308 Composition Theory for Teachers (4-0-4).
To prepare teachers to effectively integrate writing instruction in the secondary language arts curriculum, this course provides information about current beliefs and best practices that characterize what top teachers do. *Writing*.

ENG 309 Writing Center Practicum (1-4-2).
Prerequisite: Permission of instructor based on evaluation of a writing sample. Composition and tutoring theory integrated with practical experience in the teaching of writing. May be repeated for up to 4 credits. Counts toward the secondary English certification requirement in advanced composition.

Linguistics Courses

ENG 310 Traditional Grammar (4-0-4). Survey of traditional grammar, its history and present use in the schools. Cross-listed with **LIN 310**. Linguistics course.

ENG 311 Elements of Linguistics (4-0-4).
Survey of phonology, morphology, syntax, historical linguistics, semantics, pragmatics, and psycholinguistics with reference to modern English. Cross-listed with **LIN 311**. Linguistics course.

ENG 313 Studies in Linguistics (4-0-4).
Core course in a mainstream linguistic topic, such as American English dialects, historical linguistics, morphology, history of the English language, modern English grammar, semantics, or sociolinguistics. May be taken up to three times with change of topic. Linguistics course.

ENG 314 Applied Linguistics (4-0-4).
Course in the professional application of linguistics, such as Language Diversity and Teaching English, Lexicography, or English as a Second Language. May be taken up to three times with change of topic. Cross-listed with **LIN 314**. Linguistics course.

ENG 315 Introduction to the English Language (4-0-4). An overview of the main components of a linguistic description of English and of the history of the language with an introduction to some relevant areas of applied linguistics: language acquisition; regional and social dialects; socio-linguistics; and pragmatics. Cross-listed with **LIN 315**.

ENG 318 Language Analysis (2 or 4 credits). Prerequisite: **ENG/LIN/MLA/ANT 260** or **ENG 311** or a strong background in a foreign language. Topics may include Sanskrit, Hittite, Classical Armenian, Old English, Old Norse, or Gothic, studied with an emphasis on grammar and linguistic issues. May be repeated as the continuing study of one language, or with a change of topic. A two-semester sequence of one language (such as Sanskrit I and II), or a semester of Old English followed by a semester of Old Norse or Gothic, may satisfy the foreign language requirement. Students who take Sanskrit I and II (4 credits each) may take second year Sanskrit III and IV (2 credits each). Cross-listed with **LIN 318**. Linguistics course; Classical and Medieval Studies course.

Literature Courses

ENG 320 Classical Literature in Translation (4-0-4).
Survey of major literature of ancient Greece and Rome, including the Iliad, the Odyssey, Vergil's Aeneid, and other significant works by classical authors. Classical and Medieval Studies course. *Western Culture and Civilization*, *Writing*.

ENG 321 British Literature I (4-0-4). Survey of British literature from its Anglo-Saxon beginnings to 1789. *Western Culture and Civilization*.

ENG 322 British Literature II (4-0-4). Survey of British literature from 1789 to the present. *Western Culture and Civilization*.

ENG 330 Studies in Ancient Literature (4-0-4).
Study of a single aspect of ancient Greek, Roman, or other classical literature, such as Greek tragedy, feminist approaches to the classics, oral poetics, a writer, genre, theme or period. May be taken up to three times with change of topic. Classical and Medieval Studies course.

ENG 331 Studies in Medieval Literature (4-0-4).
Topics include Arthurian tradition, Dante, Malory, women and writing, and other medieval themes and genres. May be taken up to three times with change of topic. Classical and Medieval Studies course. *Writing*.

ENG 332 Studies in Renaissance Literature (4-0-4).
16th- and 17th-century authors, genres, themes, or movements, including humanism, the Reformation, metaphysical and cavalier poetry, and scientific empiricism. May be taken up to three times with change of topic. *Western Culture and Civilization*.

ENG 333 Studies in Restoration and 18th-Century British Literature (4-0-4). Authors, genres, themes, or movements in 18th-century poetry, fiction, and drama. Possible topics include the Enlightenment, satire, the rise of the novel, and neoclassical and pre-Romantic poetry. May be taken up to three times with change of topic. *Writing*.

ENG 334 Studies in 19th-Century British Literature (4-0-4). Authors, genres, themes, or movements in 19th-century poetry, fiction, and drama. Possible topics include Romantic-era women writers, the literature of British imperialism, and the fiction of Jane Austen. May be taken up to three times with change of topic. *Writing*.

ENG 335 Studies in 20th-Century British and Anglophone Literature (4-0-4). Modern and contemporary British and Anglophone authors, genres, themes or movements. May be taken up to three times with change of topic. *Writing*.

ENG 336 Studies in Non-Western Literature (4-0-4).
Reading and analysis of literary texts from non-Western cultures. Possible topics include: Non-Western Epic; Native American Literature; Contemporary Non-Western Fiction. English majors enrolled in the Multicultural/Multiethnic concentration may take the course up to three times with change of topic as multicultural electives. *Nonwestern Culture and Civilization*.

ENG 342 Survey of American Literature (4-0-4).
American literature from the 17th century to modern times, intended to provide a sense of historical movements -- colonialism, federalism, romanticism, realism, modernism.

ENG 345 Studies in American Literature (4-0-4).
Authors, genres, themes, or movements of significance in American literature. May be taken up to three times with change of topic. *Writing*.

ENG 346 Studies in American Fiction (4-0-4).
Studies in the American short story and/or novel focusing on a specific author, theme, movement, period, or subgenre. May be taken up to three times with change of topic. *Writing*.

ENG 347 Studies in African-American Literature (4-0-4). Authors, themes, or movements of significance in African-American literature. Topics include slave narratives, Harlem Renaissance, literature of the 1950s, African-American women authors. May be taken up to three times with change of topic. *Writing*, *African-American Experience*, *Human Diversity*.

ENG 348 Studies in Multicultural Literature (4-0-4).
Authors, genres, themes, or movements representing the ethnic diversity of modern American or world literature. May be taken up to three times with change of topic. *Writing*, *Human Diversity*.

ENG 350 Studies in Fiction (4-0-4).
Authors, themes, or movements significant in British, American, European, or world fiction. May be taken up to three times with change of topic. *Writing*.

ENG 351 Studies in Drama (4-0-4).
Authors, themes, or movements significant in British, American, European, or world drama. May be taken up to three times with change of topic. *Writing*.

ENG 352 Studies in Poetry (4-0-4).
Authors, themes, or movements significant in British, American, European, or world poetry. May be taken up to three times with change of topic.

ENG 355 Major Themes or Genres (4-0-4).
Themes or genres significant in British, American, European, or world literature. Topics in the past have included European Romanticism, and multicultural literature and pedagogy. May be taken up to three times with change of topic.

ENG 360 Studies in Literary Criticism (4-0-4).
Study of milestones in criticism by Aristotle, Sidney, Johnson, Wordsworth, and Arnold, and/or of modern and contemporary critical movements such as new criticism, structuralism, deconstruction, feminist criticism, and post-structuralism. May be taken up to three times with change of topic. *Writing*.

ENG 361 Classical Rhetoric (4-0-4).
Tradition of rhetoric established in ancient Greece and Rome and its continuing influence on literature and composition. Classical and Medieval Studies course.

ENG 363 Gender Issues in Literature (4-0-4).
Studies in gender theory and gender issues in literature. Topics may include contemporary feminist themes, writings of women of a particular ethnicity such as Asian-American or Latina ; the intersection of gender, race, and class; the relationship of gender to voice, technique and genre; archetypes and how questions of language are linked to these issues. May be taken up to three times with change of topic. *Human Diversity*, *Writing*.

ENG 364 Popular Culture (4-0-4).
Critical methodology and study of genres in such areas as science fiction, the western, gothic romance, comparative studies in literature and film, or mass media aesthetics. May be taken up to three times with change of topic.

ENG 370 Chaucer (4-0-4). Study of Chaucer's Canterbury Tales and other works. Classical and Medieval Studies course. *Western Culture and Civilization*, *Writing*.

ENG 371 Shakespeare I (4-0-4). Study of Shakespeare's comedies and romances. *Western Culture and Civilization*.

ENG 372 Shakespeare II (4-0-4). Study of Shakespeare's tragedies and history plays. *Western Culture and Civilization*.

ENG 374 Milton (4-0-4). Study of Paradise Lost, Paradise Regained, Samson Agonistes and other works of Milton .

ENG 375 Major Author (4-0-4).
Intensive study of a major author writing in English. May be taken up to three times with change of topic. *Writing*.

ENG 380 Imagination Conference (4-0-4).
Prerequisite: Permission of instructor, based upon manuscript submission. Intensive five-day summer workshop with visiting writers (fiction, poetry, and creative non-fiction); "craft" analyses of creative writing. Students complete a manuscript at the beginning of summer semester and present the manuscript in revised form at the end of the summer semester. In addition to tuition, students will be charged a Workshop and Materials Fee. Contact Imagination Conference Web site **http://www.csuohio.edu/poetrycenter/imagination**.

ENG 382 Canonicity (4-0-4).
The word “canon” refers to an authoritative and universally recognized body of texts. This course is devoted to examining the history, concept and legitimacy of the canon in English literature. *Writing*.

ENG 390 Literary Magazine (1 or 2 credits).
Prerequisite: Approval of faculty adviser to the literary magazine. Practicum in professional editing, writing and administration of a literary magazine. Graded S/U only; does not count toward the major. Current options are editorial work on the Whiskey Island magazine, or work in the preparation of reviews of poetry books for the Burning Press. May be repeated for up to four credits.

ENG 396 Independent Study (1 to 4 credits).
Prerequisites: Written permission of the instructor and prior approval by the Committee on Instruction in the English Department at least two weeks prior to the term in which the independent study would begin. Intensive study of a specialized topic growing out of 300-level English course work. Students may count up to four independent study credits toward the major. A student must be in good academic standing to qualify for an independent study. Independent studies cannot be given as substitutes for courses that normally are offered in the curriculum. Contact the English Department for further information.

ENG 397 Portfolio Preparation (1 credit).
Prerequisites: The student must be enrolled in the Writing Certificate Program and must have earned at least 12 credits toward the Writing Certificate, or, alternatively, must obtain permission from the instructor. Individual or group instruction in the preparation of a professional writing portfolio. Emphasis is on revision of writing projects, and preparation and presentation of texts. Graded S/U only; does not count toward the English major or minor. Offered each semester in the Writing Center.

ENG 490 Professional Internship (1 or 2 credits).
Prerequisites: Permission of the faculty anchor and field supervisor. Internships are available through Career Services. Professional writing interns must have completed all university writing requirements.

ENG 495 Senior Seminar (4-0-4).
Prerequisite: English major with senior standing or permission of instructor. Literature studied in the context of significant theoretical questions: an author, genre, or theme considered from a variety of critical perspectives. The seminar may be repeated with change of topic. *Writing*.

English as a Second Language Courses

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Faculty

Program Director: Michele S. Bowman.

Course Descriptions

Note: ESL 095-096 do not count toward graduation.

ESL 095 Intermediate ESL (4-0-4).
No prerequisites; placement by ESL Program Director recommended. An integrated skills approach to communicative competence in academic English as a Second Language; summarizing and short essay writing with an emphasis on grammar and vocabulary building. Intermediate academic listening comprehension and oral reporting are practiced through classroom discussion.

ESL 096 Advanced ESL (4-0-4).
No prerequisites; placement by ESL Program Director recommended. An integrated skills approach to communicative competence in academic English as a Second Language; analysis of Western rhetorical patterns and advanced college-level writing with an emphasis on grammar and vocabulary building. Advanced academic listening comprehension, and speaking are practiced through classroom discussion.

English Translations of Foreign Literatures Courses

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Faculty

Associate Professor: Philippa Brown Yin (Chairperson).

Course Descriptions

The following courses offer foreign literatures in English translation designed for non-language majors. These courses require no knowledge of any foreign language.

The ENF courses are numbered to indicate whether the course is Writing or non-writing. Students should read the course schedule carefully to ensure enrollment in the proper course.

A student can remove a foreign language deficiency by taking any course with the ENF rubric and the American Sign Language sequence (**SPH 251 American Sign Language I**; **SPH 252 American Sign Language II**).

ENF 210 Non-Western Literature in English Translation (4-0-4). Works representing many eras, Non-Western cultures, and genres; readings, written work, lectures and discussions in English. Topics announced in semester course schedules. May be repeated for credit with a change of topic. May be cross-listed with **ENG 204**. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

ENF 211 Non-Western Literature in English Translation (Writing) (4-0-4). Works representing many eras, Non-Western cultures, and genres; readings, written work, lectures and discussions in English. Topics announced in semester course schedules. May be repeated for credit with a change of topic. May be cross-listed with **ENG 204**. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Nonwestern Culture and Civilization*, *Writing*.

ENF 212 Western Literature in English Translation (3-0-3). Works representing many eras, Western cultures, and genres; readings, written work, lectures and discussions in English. Topics announced in semester course schedules. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*,*Western Culture and Civilization*.

ENF 213 Western Literature in English Translation (Writing) (3-0-3). Works representing many eras, Western cultures, and genres; readings, written work, lectures and discussions in English. Topics announced in semester course schedules. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

ENF 214 Women Writers in English Translation (3-0-3). Selection of works by women writers representing different genres from one or more cultures and eras; readings, written work, lectures and discussions in English. Topics announced in semester course schedules may be thematic, comparative, or representative of one cultural tradition. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Western Culture and Civilization*..

ENF 215 Women Writers in English Translation (Writing) (3-0-3). Selection of works by women writers representing different genres from one or more cultures and eras; readings, written work, lectures and discussions in English. Topics announced in semester course schedules may be thematic, comparative, or representative of one cultural tradition. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

ENF 216 Foreign Film (3-0-3). Study of foreign films, their contexts and related readings; readings, written work, lectures, and discussions in English. Topics announced in semester course schedules may be thematic, comparative, or representative of one era or culture. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*.

ENF 217 Foreign Film (Writing) (3-0-3).
Study of foreign films, their contexts and related readings; readings, written work, lectures and discussions in English. Topics announced in semester course schedules may be thematic, comparative, or representative of one era or culture. May be repeated for credit with a change of topic. May be taken by Foreign Language majors as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Arts and Humanities*, *Writing*.

ENF 310 The Post-colonial Self in Search of Identity (4-0-4). Works representing pre- and post-colonial Non-Western cultures as well as theoretical treatments of the post-colonial condition. Readings, written work, lecture and discussions in English. May be repeated for credit with a change of topic.

ENF 311 Studies in Non-Western Literature (4-0-4). Reading and analysis of literary texts from non-western cultures. Possible topics include: Non-Western Epic; Native American Literature; Contemporary Non-Western Fiction. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Nonwestern Culture and Civilization*.

ENF 312 Western Literature in English Translation (4-0-4). Works representing many eras, Western cultures, and genres; reading, written work, lecture, and discussions in English. Topics announced in semester course schedules such as "Short European Fiction" and "European Romanticism." May be cross-listed with English. May be repeated for credit with a change of topic. Foreign Language majors may take it as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Western Culture and Civilization*.

ENF 313 Western Literature in English Translation (Writing) (4-0-4). Works representing many eras, Western cultures, and genres; reading, written work, lecture, and discussions in English. Topics announced in semester course schedules such as "Short

European Fiction" and "European Romanticism." May be cross-listed with English. May be repeated for credit with a change of topic. Foreign Language majors may take it as elective only. College of Liberal Arts and Social Sciences, College of Science: Foreign Culture course. *Western Culture and Civilization*, *Writing*.

Environmental Science Courses

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- **Course Descriptions**
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Faculty

Environmental Science is part of the Department of Biological, Geological, and Environmental Sciences.

Professors: Abbed Babaei, Pete Clapham, F. Paul Doerder, Mark A. Tumeo; **Associate Professors:** A. Ralph Gibson, Robert A. Krebs, B. Michael Walton, Julie A. Wolin; **Assistant Professors:** Fasong Yuan; **Adjunct Faculty:** Miles M. Coburn, John Carroll University; Jeffrey P. Johansen, John Carroll University; Joe B. Keiper, Cleveland Museum of Natural History; Daniel R. Petit, Cleveland Metroparks.

Other University Departments involved in Cleveland State University's Environmental Academic Studies Program: Chemistry, Civil and Environmental Engineering, Urban Studies

Course Descriptions

EVS 206 Introduction to Environmental Science (4-0-4). An introduction to the interlinkages of nature, with substantive materials from geology, biology, chemistry, physics, economics, anthropology, political sciences and many other areas. The role of humans as destroyers and conservationists in nature will be studied. Natural- and human-caused hazards and prevention will be investigated. *This course is for EVS majors, students considering an EVS major, and students pursuing studies in related environmental fields*. *Natural Science*.

EVS 300 Physical Features of Ecosystems (3-0-3). Prerequisite: **EVS 206** or **GEO 230**. Corequisite: **EVS 301**. Overview of the dynamics of the abiotic factors contributing to ecosystem structure and function. The course will include water resources and flood hazards, environmental hazards, soils, and waste management. It will deal both with natural factors and environments that have been affected by human intervention, as well as conservation of the resources on which society depends.

EVS 301 Physical Features of Ecosystems Laboratory (0-2-1). Corequisite: **EVS 300**. Selected exercises designed to reinforce concepts covered in **EVS 300**, including experiments, exercises, and field trips to introduce students to hands-on observation of significant environmental issues. The course has four required half-day field trips and one required full-day field trip.

EVS 302 Biological Features of Ecosystems (3-0-3). Prerequisite: **EVS 206** or permission of instructor. Corequisite: **EVS 303**. An introduction to biological features and resources of ecosystems, and their conservation and management.

EVS 303 Biological Features of Ecosystems Laboratory (0-2-1). Corequisite: **EVS 302**. Selected exercises designed to reinforce concepts covered in **EVS 302**.

EVS 380 Earth System Science for Middle School Teachers (3-4-5). Prerequisite: **GEO 100**/**101** or permission of the instructor. Enrollment is restricted to students seeking middle school licensure. No credit towards geology or environmental science major or minor. Concepts of earth system science relevant to students seeking middle school licensure will be discussed and related to timely issues. Lectures will coordinate with laboratory exercises and inquiry-based activities.

EVS 450 Applied Ecology (3-0-3). Prerequisite: **BIO 300** or **BIO 302** or **BIO 304** or permission of instructor. Our lives have been increasingly touched by questions pertaining to environmental degradation at local, regional, and global scales. Students will examine ways in which ecological principles can be applied to solving some of these crucial environmental problems. Topics include global climate change, sustainability, agroforestry, biodiversity and conservation, invasive species, ecotoxicology, biomonitoring and bioremediation, and restoration ecology.

EVS 454 Conservation Biology (3-0-3). Prerequisite: **BIO 304**. This course will examine the causes and scientific responses to the current worldwide crisis of declining biodiversity. Scientific principles underlying conservation biology are emphasized, but students also will explore the role that culture, societal values, politics, and economics play in conservation issues.

EVS 455 Conservation Biology Laboratory (0-4-2). Prerequisite: **BIO 304**. Examination of central principles of conservation biology through field studies and computerized analyses of data for actual endangered and threatened species. This laboratory course provides students with experience in quantification and analysis of biodiversity, environmental monitoring, mathematical modeling, risk assessment, and other methods used in conservation biology, ecology, and natural resource management.

EVS 470 Aquatic Ecosystems (3-0-3). Prerequisites: **BIO 200**, **BIO 202**, and **CHM 261** or equivalent. Co-requisite: **EVS 471**. A study of aquatic ecosystems, including lakes, streams, rivers, and wetlands. Commonalities and differences between the physical-chemical and biological components of these ecosystems will be discussed. The impacts of human activities on these ecosystems are covered, as well as water quality assessment techniques, pollution control, and regulation. This course includes three required Saturday field trips.

EVS 471 Aquatic Ecosystems Laboratory (0-2-1). Prerequisites: **BIO 200**, **BIO 202**, and **CHM 261**. Co-requisite: **EVS 470**. Selected exercises to introduce students to hands-on sampling and analytical techniques used in water quality assessment. This course includes three required Saturday field trips, each equivalent to two classroom laboratory periods.

EVS 472 Introduction to Watersheds of Northeast Ohio (2-0-2). Prerequisite: **GEO 223** or permission of instructor. Co-requisite: **EVS 473**. Introduction to the study of watersheds.

EVS 473 Introduction to Watersheds of Northeast Ohio Laboratory (0-4-2). Co-requisite: **EVS 472**. Students will examine chemical, biological, and habitat aspects of area streams; study the watersheds of those streams; and carry out limited watershed-modeling exercises designed to help understand the dynamics of watersheds and the streams that drain them.

EVS 490 Internship in Environmental Science (0-8-4).

Prerequisite: Permission of instructor. Independent study related to work experience for majors in Environmental Sciences.

EVS 493 Special Topics in Environmental Science (3-0-3).
Prerequisite: Permission of instructor. Study of a particular topic in environmental science. Topics to be announced in semester course schedule. May be repeated for credit with a change of topic.

EVS 494 Special Topics in Environmental Science (4-0-4).
Prerequisite: Permission of instructor. Study of a particular topic in environmental science. Topics to be announced in semester course schedule. May be repeated for credit with a change of topic.

EVS 496 Independent Study in Environmental Science (0-8-4). Prerequisite: Permission of instructor. Independent study of material of special or timely interest which is not likely to be appropriate for, or covered in, regular course offerings. May be repeated for credit with change in topic.

EVS 497 Research in Environmental Science (0-8-4).
Prerequisite: Permission of instructor. Undergraduate research carried out by special arrangement. The student may work independently or as an assistant to a faculty investigator.

EVS 499 Exit Evaluation (0-1-0).
Prerequisite: Senior standing. Final exit examination and outcomes assessment evaluation required of all graduating seniors. Graded S/U.

Environmental Studies Courses

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Faculty

Professors:
Mark S. Rosentraub (Dean), Paul Bosela, William Bowen (Director, Ph.D. Program), Michael Gates, Miron Kaufman, Sanda Kaufman(Director, MAES Program), W. Dennis Keating (Associate Dean and Director, MSUS Program), Wendy Kellogg (Director, MUPDD Program), Sylvester Murray, Robert A. Simons, Roberta Steinbacher, Michael Tevesz; **Associate Professors:** Virginia O. Benson, Nancy Meyer-Emerick, Brian A. Mikelbank, Michael Walton, Michael V. Wells (Director, Undergraduate Programs).

Course Descriptions

ENV 259 Natural History of the Cleveland Area (2-6-4).
General geology, ecology, flora, and fauna of the Cleveland area; field trips to parks and museums to study local rock formation, Forest types, and plant and animal identification. Designed primarily for nonscience majors. Cross-listed with **UST 259**. *Natural Science*.

ENV 435 Environmental Policy and Administration (4-0-4). Administration of the organizations charged with responding to environmental regulations and/or crises; decision- and policy-making processes within and around these organizations, especially as they are related to conflicting interests and values. Cross-listed with **UST 435**. *Writing*.

ENV 436 Urban Sustainability (4-0-4).
Presents the values, trends and methods of planning for environmentally sustainable cities and regions. Focuses on urban sustainability and built form, including buildings, designed green spaces, urban water systems, energy and economic change. Students become familiar with processes that generate the physical landscape and the impacts of human settlements on natural landscapes. Local, state, and federal laws and regulations relevant to land use and resource protection are featured. Students become familiar with planning methods and their use.

ENV 440 Environment and Human Affairs (4-0-4).
Challenges to decision-makers in environmental policy-making; strategies appropriate to various decision situations, analysis of decision-making, negotiation and mediation techniques. Cross-listed with **UST 440**.

ENV 441 Environmental Planning (4-0-4).
Exploration of principles and processes of environmental planning focusing on urban and regional levels; presentation of frameworks and techniques in areas such as site plan review, urban design, urban environmental restoration, open space and habitat preservation, water quality, bioregionalism, and growth management. Cross-listed with **UST 441**.

ENV 442 Environmental Finance and Capital Budgeting (4-0-4). Introduces students to natural resource economics theory, financial decision-making processes, and public policy relevant to environmental protection, urban sustainability, and natural resource development and management; examination of public goods and pricing theory, public sector involvement, regulation, market solutions, capital planning, and budgeting for environmental infrastructure.

ENV 443 Environmental Regulatory Compliance (4-0-4).
Examination of occupational safety and health requirements placed on industry and urban institutions; utilizes training modules that meet federal standards and guidelines.

ENV 489 Senior Project (4-0-4).
Prerequisite: Senior standing or permission of instructor. Capstone course coordinating knowledge and skills gained through fulfillment of the requirements for a major in Environmental Studies.

ENV 490 Environmental Cooperative Education Internship (Credit as arranged). Prerequisite: Permission of instructor. Work experience in environmental agencies for Environmental Studies majors.

ENV 496 Environmental Research (Credit as arranged).
Prerequisite: Permission of instructor. Independent research for Environmental Studies majors.

Finance Courses

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Faculty

Professors: Chenchuramaiah T. Bathala, Michael T. Bond, Ravindra R. Kamath, Alan K. Reichert, Jam es R. Webb; **Associate Professors:** Kenneth A. Borokhovich, F.C. Neil Myer; **Associate Professors Emeriti:** John A. Domonkos, Charles T. Rini, Jandhyala L. Sharma; **Assistant Professor:** Haigang Zhou; **Term Instructor:** Mario Mastrandrea.

Course Descriptions

**Note: for courses noted "Formerly": the newer course numbers were effective as of Spring 2007.*

FIN 201 Personal Financial Planning (3-0-3). Introduction to concepts in finance (risk, return, liquidity, horizon, inflation, and taxation) applied to personal financial planning; impact of career choice on discretionary incom e; basic financial planning; investing at low risk vs. aggressive investing; investing in real assets, commodities, and related topics. NOTE: B.B.A. students may take this course only as a free elective.

FIN 351 Introduction to Financial Management (4-0-4). Prerequisites: **ACT 222**, **ECN 201**, **ECN 202**. A study of the basic tools and concepts of financial management and their application to the areas of financial state ment analysis, leverage, short-term and long-term financing, financial forecasting, time value of money, working capital management, inv estment banking, cost of capital, capital budgeting, capital structure, valuation, dividend policy, mergers and acquisitions, an d multinational finance.

FIN 352 Special Topics in Finance (4-0-4). *Effective Spring 2007, this course is renumbered as FIN 493.* Prerequisite: **FIN 351**. A survey of topics of special interest to finance majors. Possible themes, topics, or is sues include: working capital management, forecasting, financial engineering, mergers and acquisitions, financial risk managemen t, financial theory and other topics of a timely nature.

FIN 353 Introduction to Investments (4-0-4). Prerequisite: **FIN 351**. An introduction to the factors affecting changes in prices of securities and their relation to objectives of personal and institutional investors. T he course introduces functions, operations, and workings of various securities markets, stock, bond, option and futures. It covers fac tors affecting the security prices, risk, and fundamental valuation principles of security prices. Its primary focus is on the under standing of the mechanics and terminology of various security markets, and the risk and fundamental valuation principles of securit y prices.

FIN 360 Financial Markets and Institutions (4-0-4). Prerequisite: **FIN 351**. An analysis of the financial instruments (including derivative securities) of both domestic and international institutions of the money an d capital markets; plus the operations of financial intermediaries such as commercial banks, savings and loan associations, and insurance and investment companies.

FIN 454 Advanced Investments (4-0-4). *Formerly FIN 354.* Prerequisite: **FIN 353**. A more detailed consideration of factors studied in FIN 353, with particular emphasis on comprehensive industry analysis and common stocks , bonds, and options; portfolio theory and the portfolio management process. Course focuses upon detailed qualitative and fundamental valuation models for various financial securities; stocks, bonds, options and futures; and risk-return analysis. Emphasis is on institutional investors such as mutual funds and pension funds, and will include coverage of international investing.

FIN 461 Bank Management (4-0-4). *Formerly FIN 361.* Prerequisite: **FIN 351**. A study of management of bank funds and the organization and structure of the commercial banking industry. Topics include the mana gement of liquidity, investments, loans, liabilities, and capital; the impact of bank regulatory agencies and the changes in mo ney and capital market conditions on the management of bank funds; evaluation of the performance of bank holding companies; and international banking.

FIN 465 International Finance and Investment (4-0-4). *Formerly FIN 365.* Prerequisite: **FIN 351**. A survey of international trade, foreign exchange markets, balance of payments, exchange rate determination, and offici al reserves; international corporate finance, capital budgeting, cash management, capital structure, cost of capital, transfer prici ng, and tax management;. accounting translation, hedging and international banking.

FIN 470 Introduction to Risk and Insurance (4-0-4). *Formerly FIN 370.* Prerequisite: **FIN 351**. An examination of risk, methods of handling risk, the insurance mechanism, characteristics of insurance, legal concepts u nderlying insurance contracts, risk management, captives, types of insurers, and insurance company operations. A variety of insurance products are covered, including homeowners' insurance, automobile insurance, umbrella coverage, title insurance, workers' compensa tion, life insurance, annuities, and health insurance. The emphasis of the course is on property and liability insurance.

FIN 471 Life and Health Insurance (4-0-4). *Formerly FIN 371.* Prerequisite: **FIN 470**. A study of principles and practices of providing personal and family security against the risks of death and ill health. The course als o covers topics involving life insurance products, costs, pricing, settlement options, replacement, premium and costs computations, savin g for retirement, annuity products and their costs, and social insurance.

FIN 473 CFA Level I Review (2 to 4 credits). *Effective: Spring 2008.* Prerequisite: **FIN 353** and permission of instructor. Follows Chartered Financial Analyst Institute's curriculum in preparing students for the CFA L evel I examination. Coverage includes: ethics and professional standards; quantitative methods: statistics and time value principles; ec onomics: macro, micro, and global; accounting: financial statement analysis; corporate finance; investment/valuation tools: equity in vestments, debt investments, derivative & alternative investments; and portfolio management.

***FIN 477 Real Estate Finance (4-0-4).** *Formerly FIN 377.* Prerequisite: **FIN 351**. A discussion of major instruments of real estate financing, the mortgage market and key financial institutions, governmental involvemen t in mortgage markets, credit analysis, the methodologies for appraising residential properties, and other relevant topics. The co urse will emphasize the use of creative financing tools and their payment patterns by analyzing detailed examples. *****Approved by the Ohio Association of Real Estate Boards Inc., as partial fulfillment of the Real Estate License requirements.

FIN 479 Real Estate Investment (4-0-4). *Formerly FIN 379.* Prerequisite: **FIN 351**. An analysis of factors which determine the

investment returns and value of real estate vs. alternatives. The course introduces me thodologies for appraising income-producing properties. Decision-making from the perspective of institutional, as well as individu al investors, is examined. Estimation of risk and return is explored in an individual property and portfolio context.

FIN 480 Case Problems in Finance (4-0-4). *Formerly FIN 380.* Prerequisite: **FIN 351**. Case studies relating to long-term financing requirements, operating and financial leverage, dividend policy, cash budgeting, risk, working capital management, capital budgeting, cost of capital, management of earnings, valuation of the firm, and mergers and acquis itions.

FIN 484 Capital Budgeting Decisions (4-0-4). *Formerly FIN 384.* Prerequisite: **FIN 351**. A study of the theory and practice of capital budgeting in the global arena. Topics include capital budgeting techniques; and decisi ons involving replacement, make or buy, plant location, risk and uncertainty, lease evaluation, bond refunding, project abandonment, inflation, mergers and acquisitions, cost of capital, capital structure decisions, executive compensation, dividend policy and valu ation.

FIN 490 Professional Internship (1 to 4 credits). Prerequisites: **FIN 351**, junior standing, permission of chairperson. Requires professional finance work experience in an organizational environment which extends th e curriculum and provides meaningful experience related to the student's area of interest. Term report required.

FIN 493 Special Topics in Finance (4-0-4). *Formerly FIN 352.* Prerequisite: **FIN 351**. A survey of topics of special interest to finance majors. Possible themes, topics, or issues include: working capital management, foreca sting, financial engineering, mergers and acquisitions, financial risk management, financial theory and other topics of a timely nature.

FIN 496 Independent Study (1 to 4 credits). *Formerly FIN 491 Special Problems in Finance.* Prerequisites: **FIN 351** senior standing, approval of sponsoring faculty and department chairperson. A flexible content/structur e course to enable qualified students to pursue independent study or field research in special areas of interest in finance under the supervision of a Finance faculty member. Requires Faculty member approval and permission of department chair. Written proposal and final report required.

FIN 499 Honors Thesis in Finance (4 credits).
Prerequisite: Restricted to senior Finance honors students. Requires the honors studen t to conduct a piece of original research in finance under the supervision of a Finance faculty member. The thesis will be presente d orally and submitted as a written report.

French Courses

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Faculty

Associate Professors: Tama Lea Engelking, Annie Jouan-Westlund, Philippa Brown Yin (Chairperson); **Assistant Professor:** Lee Wilberschied.

Course Descriptions

Students with native experience of French may not enroll for credit in 100-level courses in French. All students with training or experience in French other than a previous course in that language at Cleveland State must consult a counselor in the Department of Modern Languages for assistance in deciding where to enter the French sequence. Failure to seek counseling may result in schedule shifts during the first week of class.

All language courses have the following divisions and courses numbered from:

100-114 (200-214, etc.) concern the development of performance skills;

115-34 (215-234, etc.), the nature of language;

135-64 (235-264, etc.), culture and civilization;

165-89 (265-289, etc.), literature;

190-99 (290-299, etc.), independent and specialized courses

FRN 100, 200, 300, 400 Practicum in French (1 to 6 Credits). Prerequisites: Permission of instructor, departmental approval. Specially arranged projects or supervised experiences for non-native speakers in French conducted in the university and in the community. Examples: special work in the Instructional Media Laboratory, participation in a French play, tutorial activity in a basic French course, a study, or service project involving fieldwork in one of the French communities. Projects arranged between individual students and instructors; title of the project will appear on the student's transcript. May be repeated for credit with change of topic. S/U only.

FRN 101, 102 French Language Skills I, II (4-2-5).
Prerequisites: for FRN 102: FRN 101 or the equivalent course with C or better or permission of instructor. Development of proficiency in speaking, understanding, reading, and writing French. Lab fee.

FRN 192, 292, 392, 492 Special Topics: Study Abroad (1 to 6 Credits). Prerequisite: FRN 192: No prerequisite; FRN 292: **FRN 201**; FRN 392: **FRN 301**; FRN 492: **FRN 301**
and one literature or civilization course. Study of a particular topic in French language, literature, or civilization as part of the university's Study Abroad Program. May be repeated with change of topic. **Return to top**

FRN 196, 296, 396, 496 Independent Study in French (1 to 6 Credits). Prerequisite: Student must have sophomore, junior, or senior standing. Proposed projects must be approved by a full-time department faculty member who will serve as the project adviser, and the department chairperson. Student-initiated supervised projects involving French language or literature. Such as in-depth study of a particular writer, or special readings in linguistics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between individual students and instructor; title of the project will appear on the student's transcript. May be repeated for credit with change of topic.

FRN 201 Culture and Civilization (4-0-4). Prerequisite: Completion of **FRN 102** or **FRN 210** with a C or better. The study of Francophone culture and cross-cultural interactions. Ongoing development of French language skills of hearing, speaking, reading, and writing French using authentic cultural materials. College of Liberal Arts and Social Sciences or College of Science Foreign Culture course.

FRN 202 Francophone Perspectives on World Affairs (4-0-4). Prerequisite: Completion of **FRN 102** with a C or better or permission of instructor. Emphasis on cross-cultural communication and the practical application of French language skills in world affairs, building on the basic skills of speaking, listening, reading, writing, and cultural acumen.

FRN 203 Readings in French (4-0-4). Prerequisite: Completion of **FRN 201** or **FRN 202** with a C or better or permission of instructor. An introduction to the study of literary texts that serves as a bridge between the 200-level (intermediate) and 300-level (advanced) courses. Students develop reading skills and strategies to prepare them for upper-division French literature and civilization courses. A number of genres are studied, and students are introduced to basic critical tools of literary analysis including explication de texte. Course may be organized around a theme. Highly recommended for students preparing to enter graduate school where reading proficiency in a second language is required.

FRN 207 Intermediate Commercial French (4-0-4). Prerequisite: Completion of **FRN 102** with a C or better or permission of instructor. Introduction to the world of business and technology in France. Socio-economic issues that affect business; everyday commercial activities, such as job interviews, on-the-job routines, banking. Continued development of language skills appropriate to the course topic and level.

FRN 210 Basic Oral Skills (3-0-3). Prerequisite: Completion of **FRN 102** with a C or better or equivalent. Practice in listening comprehension; exercises designed to improve fluency, pronunciation, and vocabulary.

FRN 216 Translation and Interpretation (3-0-3). Prerequisites: two intermediate French courses (**FRN 201**, **202**, **203**, or **210**). Introduction to theory and practice of translation from French to English. Workshop approach involving class discussion of students' work-in-progress. Work required varies according to students' level of preparation.

FRN 240, 340, 440 Field Study (1 to 6 Credits).
Prerequisites: Permission of instructor, departmental approval. The amount of language preparation necessary to participate in any given field experience is to be determined by the department and the instructor. Specially arranged field experience abroad provides intensive exposure to students target countries and languages. May be preceded by a special preparatory course, such as supervised individual or group work-study experience in the target country followed by a period of travel; supervised two- to six-week group travel for students

interested in a language- or culture-oriented project in the target country. See semester course schedule. A field study trip to France will be offered periodically. For further information, contact the Department of Modern Languages. *Western Culture and Civilization*, *Writing* (students must earn a C or better to receive Writing credit).

FRN 293, 393, 493 Special Topics in French (1 to 4 credits). Prerequisites for FRN 293: Completion of **FRN 102** with a C or better; for FRN 393: **FRN 301** and sophomore standing or permission of instructor; for FRN 493: **FRN 301** and one 300-level FRN course. May be repeated with a change in topic.

FRN 301 Composition and Conversation (4-0-4). Prerequisite: **FRN 202** or **FRN 203** and sophomore standing or permission of instructor. Practice in speaking and writing on an advanced level, including grammar review.

FRN 302 Advanced Oral Styles (4-0-4). Prerequisite: **FRN 301** (**FRN 345** or **FRN 402** recommended) and sophomore standing. This course is designed to provide a contemporary proficiency-based format which advanced undergraduate students and teachers can use. The use of authentic recorded materials such as television commercials, telephone messages, radio game shows, and traffic reports work with a variety of language and role models. Sometimes cross-listed with **FRN 534**.

FRN 315 French Phonetics and Diction (4-0-4). Prerequisite: **FRN 301** and sophomore standing or permission of instructor. Description of the French sound system and study of the phonetic alphabet and its usage. Extensive practice in pronunciation in class and in the Instructional Media Laboratory. Required for majors seeking teaching licensure.

FRN 316 Translation and Interpretation (3-0-3). Prerequisite: **FRN 301** or the equivalent and sophomore standing or permission of instructor. Introduction to theory and practice of translation from French to English. Workshop approach involving class discussion of students' work-in-progress. Work required varies according to students' level of preparation.

FRN 344 French Civilization from the Middle Ages to the Empire (4-0-4). Prerequisite **FRN 301** and sophomore standing or permission of instructor. This course is a study of the social, political, economic and cultural history of France from the Middle Ages through the Napoleonic Empire. Through a chronological study of distinctive historical periods up to 1870, students will trace the origins of French culture as we know it today. *Western Culture and Civilization*.

FRN 345 French Civilization from 1870 to the Present (4-0-4). Prerequisite **FRN 301** and sophomore standing or permission of instructor. This course is a study of the social, political, economic and cultural history of France from 1870 to the present. Beginning with the end of the 19th century, focus will be on the major historical and cultural events that shaped the image of modern France. *Western Culture and Civilization*.

FRN 371 Literature Survey I (4-0-4). Prerequisite: **FRN 301** and sophomore standing. Introductory sequence surveys the major literary movements and genres from the Middle Ages to the Revolution. *Writing*, *Western Culture and Civilization*.

FRN 372 Literature Survey II (4-0-4). Prerequisite: **FRN 301** (**FRN 371** or **FRN 345** recommended) and sophomore standing. Introductory sequence surveys the major literary movements and genres from the 19th century to the present. *Writing*, *Western Culture and Civilization*.

FRN 374 Readings in French Literature (4 credits). Prerequisite: **FRN 301** and sophomore standing. Reading and writing assignments are in the original French. Lectures may be in English if cross-listed with **ENF 212** / **213**, **214**/**215**. *Writing*.

FRN 375 Readings in Francophone Literature (4-0 4). Prerequisite: **FRN 301** and sophomore standing. An introduction to literature written in French from Francophone countries outside of France. May be organized as a survey touching on works drawn from a number of French-speaking countries, or around one or two regions such as North Africa and the Caribbean. Texts are situated in their historical context with an emphasis on identity as it relates to language, tradition and the influence and/or rejection of a colonial past. Lectures may be in English if cross-listed with **ENF 210**.

FRN 402 Advanced Composition and Conversation (4-0-4). Prerequisites: **FRN 301** and one 300-level French literature course and sophomore standing. Continuation of **FRN 301** on a more advanced level; development of style and accuracy. *Writing*.

FRN 416 Studies in French Linguistics (3-0-3). Prerequisites: **FRN 402** and one 300-level French course and sophomore standing or permission of instructor. Topics to be announced in semester course schedules. May be repeated for credit with change of topic. Linguistic Studies course.

FRN 491 Senior Honors Project (3-0-3).
Prerequisite: For MLA Honors Students only. Project must be preapproved by project adviser who is a full-time faculty member, department chair, and department curriculum committee. An independent research project developed in cooperation with faculty adviser. Completed projects will be submitted in written form and presented in a public forum.

The following graduate courses are offered in French for candidates of the master of education in curriculum and instruction with a concentration in French (may be repeated with change of topic):

FRN 534 Studies in Language and Linguistics (3-0-3)

FRN 540 Field Experience Abroad (1 to 6 credits)

FRN 592 Special Topics: Study Abroad (1 to 6 credits)

FRN 593 Special Topics in French (4-0-4)

FRN 594 Special Topics in Literature (1-6)

FRN 596 Independent Study (1 to 6 credits)

General Administration Courses

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Faculty

Professor Emerita: Margaret H. Bahniuk; **Associate Professors:** Kenneth R. Mayer, Marion S. Webb.

Course Descriptions

GAD 250 Business Communications (3-0-3). Prerequisites: **ENG 101**, **ENG 102**, or equivalent. To develop an understanding of the principles of effective communication and to apply them to the solution of management problems in the form of written reports, memoranda and letters, and professional oral presentations. *Writing*.

Geology Courses

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Faculty

Geology is part of the Department of Biological, Geological, and Environmental Sciences.

Professor: Abbed Babaei, W.B. Clapham, Jr.; **Professor Emeritus:** Howard H. Lo; **Assistant Professor:** Fasong Yuan.

Course Descriptions

GEO 100 Introductory Geology (3-0-3). Corequisite: **GEO 101**. Basic instruction concerning the composition of the earth, with a detailed discussion of the physical and chemical processes that bring about its continual evolution. *Natural Science*.

GEO 101 Introductory Geology Laboratory (0-2-1). Corequisite: **GEO 100**. Selected exercises designed to reinforce some concepts covered in **GEO 100**. *Natural Science Laboratory*.

GEO 106 Introduction to Meteorology (3-0-3).
Introduction to weather and weather systems, with a detailed discussion on the nature of the atmosphere, air motions, precipitation, storms, weather patterns, and weather analysis. *Natural Science*.

GEO 140 Development of Continents and Oceans (3-0-3).
Introduction to the structure and history of continents and ocean basins; examination of geological provinces of North America, and the sequence of events through geological time that created and changed the earth..

GEO 150 Geological History of the Earth (4-0-4).
Introduction to the history of the earth. Examination of the biochemical and geological evidence for the origin of life and the mechanisms and patterns of evolution, evaluating the most significant events in the evolutionary history of plants and animals through geological time. Introduction to the structure and history of continents and ocean basins, concentrating on the events through geological time that created the North American continent. *Natural Science*.

GEO 170 Origin and History of Life (3-0-3).
Biochemical and geological evidence relating to the origin of life and the mechanisms and patterns of evolution; significant events in the evolutionary history of plants and animals.

GEO 202 Principles of Paleontology (3-0-3).
Presentation of the underlying principles concerning the preservation, description, classification, paleoecology, evolution, and stratigraphy of fossil organisms. *Natural Science*.

GEO 203 Paleontology Laboratory (0-4-2).
Systematic survey of invertebrate fossils using preserved specimens. Topics include functional morphology, taxonomy, paleoecology, and geological history. *Natural Science Laboratory*.

GEO 210 The Earth and Human Affairs (3-0-3).
Examination of geologic hazards, such as earthquakes, landslides, floods, and shoreline erosion, including class discussion of current events of this type; examination of development of society.

GEO 230 Natural Resources (3-0-3).
Examination of our natural resources with emphasis on nonrenewable fossil fuels and mineral resources; discussion of the effect of population growth and technology on rates of consumption, mineral economics, and the concept of "reserves"; the future outlook with regard to alternative sources of energy, substitutes, and recycling.

GEO 293 Special Topics in Geology (1 to 4 credits). Prerequisite: Permission of instructor. Topics reflect material of special or timely interest which is not likely to be appropriate for regular, continuing course offerings. May be repeated for up to 16 credits with a change in topic.

GEO 304 Mineralogy (3-0-3). Prerequisite: **GEO 100** and **GEO 101** or permission of instructor. Corequisite: **GEO 305**. Study of elementary crystallography, crystal chemistry, mineral chemistry, and mineral classification; with emphasis on the identification of important minerals using physical properties.

GEO 305 Mineralogy Laboratory (0-2-1). Corequisite: **GEO 304**. Selected exercises designed to reinforce concepts covered in **GEO 304**.

GEO 306 Petrology (3-0-3). Prerequisites: **GEO 100** and **GEO 101**, or permission of instructor. Corequisite: **GEO 307**. Study of mineralogical and chemical composition; occurrence; classification; origin of igneous, sedimentary, and metamorphic rocks; emphasis on interpretation of phase diagrams and the application of experimental and field studies to the origin of rocks.

GEO 307 Petrology Laboratory (0-2-1). Corequisite: **GEO 306**. Selected exercises designed to reinforce concepts covered in **GEO 306**.

GEO 312 Sedimentation and Stratigraphy (3-0-3). Prerequisites: **GEO 100** and **GEO 223**, which may be taken concurrently with GEO 312, or permission of the instructor. Corequisite: **GEO 313**. Study of the origin, dispersal, deposition, and lithification of sediments; variation of sedimentary parameters; discussions of facies, correlation, use of sedimentary structures, and paleographic reconstruction; regional stratigraphy of North America.

GEO 313 Sedimentation and Stratigraphy Laboratory (0-2-1). Corequisite: **GEO 312**. Selected exercises designed to reinforce concepts covered in **GEO 312**.

GEO 314 Paleoecology (3-0-3).
Environmental reconstruction using fossils; particular attention given to organism-sediment interrelations, organism diversity, distribution adaptive morphology, and community structure.

GEO 320 Structural Geology (3-0-3). Prerequisites: **GEO 100**, **GEO 101**and **GEO 223** or permission of the instructor. Corequisite: **GEO 321**. Study of the forces involved in the deformation of the earth's crust, with emphasis on the recognition, interpretation, and illustration of the resultant geologic structures.

GEO 321 Structural Geology Laboratory (0-2-1). Corequisite: **GEO 320**. Selected exercises designed to reinforce concepts covered in **GEO 320**.

GEO 323 Geospatial Concepts and Tools (1-4-3).
Practicum on environmental geography, concentrating on the information, concepts, and tools we use to visualize and analyze the environment. Basic information sources include maps, aerial photographs, and satellite imagery. Analytical tools include direct observation and measurement of these sources, as well as an introduction to the use of geographic information systems and image processing for remote sensing. Intended for majors in biology, environmental science, and geology.

GEO 350 Introduction to Oceanography (3-0-3).
Prerequisites: Minimum of two science courses. Examination of the interrelated physical, chemical, biological, and geological processes operating in sea water and ocean basins; selected topics relating to the geologic interpretation of the marine rock record, factors regulating growth and environmental habitat of organisms, and the geophysics of ocean basins.

GEO 354 Geochemistry (4-0-4). Prerequisites: **GEO 100** and **GEO 101**, or permission of instructor. Study of geochemical principles and their application to geologic processes. Topics include radiometric dating, element abundance, water chemistry, sedimentary geochemistry, and the geochemistry of invertebrate skeletons, particularly their isotopic and trace element compositions.

GEO 358 Field Geology of the Cleveland Area (2-0-2). Prerequisites: Two courses in science or permission of instructor. Corequisite: **GEO 359**. This course describes the geological history of the Cleveland area and illustrates its relation to the physical, economic, and social development of Cleveland. The course will include laboratory exercises but will emphasize field trip studies.

GEO 359 Field Geology of the Cleveland Area Laboratory (0-2-1). Corequisite: **GEO 358**. Selected exercises designed to reinforce concepts covered in **GEO 358**.

GEO 404 Environmental Science for Teachers (3-0-3). Prerequisites: At least three courses in the College of Education at the 300-level or above, or equivalent, or permission of the instructor. Application of environmental science to the classroom. Substantive materials from geology, biology, chemistry, and other sciences will be integrated to create a coherent picture of the functioning of the complex systems underpinning the natural world and human society; and the ability for students to understand how society can manage these systems. This course is intended for students working toward school certification. A significant part of the course will be the development of curricular materials based on course content for use in participants' own classes.

GEO 408 Environmental Geology for Teachers (3-0-3). Prerequisites: At least three courses in the College of Education at the 300-level or above, or equivalent, or permission of the instructor. Detailed examination of geologic hazards and the constraints placed by regional geology and geography on the problems facing modern, urban industrial societies. This course is intended for students working toward school certification. A significant part of the course will be the development of curricular materials based on course content for use in participants' own classes.

GEO 410 Geological History of the Cleveland Area (3-0-3). Prerequisites: At least three courses in the College of Education at the 300-level or above, or equivalent, or permission of the instructor. This course provides a basis of illustrating the relation of regional geology to the physical, economic, and social development of the Cleveland area. The course will emphasize laboratory experimentation and field trip studies.

GEO 420 Rivers and Watersheds of Northeast Ohio (2-0-2). Prerequisite: **GEO 223** or permission of instructor. Corequisite: **GEO 421**. Introduction to the study of watersheds. *This course no longer offered as of Spring 2006. See **EVS 472**.*

GEO 421 Rivers and Watersheds Laboratory (0-4-2). Corequisite: **GEO 420**. Students will examine chemical, biological, and habitat aspects of area streams; study the watersheds of those streams; and carry out limited watershed-modeling exercises designed to help understand the dynamics of watersheds and the streams that drain them. *This course no longer offered as of Spring 2006. See **EVS 473**.*

GEO 425 Introduction to Geographic Information Systems and Remote Sensing (2-4-4). Prerequisite: **GEO 223**. Introduction to Geographic Information Systems and the use of computerized techniques for assessing geographically distributed data. The course will include the use of GIS techniques to analyze data and present those analyses. It will concentrate on the use of satellite imagery and aerial photography, as well as standardized data sets available from commercial sources and the World Wide Web. Laboratory is selected exercises designed to reinforce concepts covered in lecture.

GEO 427 Advanced Topics in Remote Sensing and Geographic Information Systems (1-6-4). Prerequisite: **GEO 425**. Intensive investigation of the techniques and problems associated with using remote-sensed data for Geographic Information Systems-based analyses in geology, biology, and environmental science.

GEO 444 Hydrogeology (3-0-3). Prerequisite: At least one course at the 300-level or higher in Geology (excluding **GEO 404**, **408**, and **410**). Corequisite: **GEO 445**. Study of the concepts and principles of ground-water flow in rocks, sediments, and soils. The course will deal with flow in both saturated and unsaturated zones, and will include issues related to ground-water use, pollution, and ground-water monitoring both for quality and quantity. Laboratory exercises will cover mathematical and computer solutions to equations and real life situations. Some field work will be required.

GEO 445 Hydrogeology Laboratory (0-2-1). Corequisite: **GEO 444**. Selected exercises designed to reinforce concepts covered in **GEO 444**.

GEO 451 Field Geology (Minimum of 4 credits).
Geological mapping using aerial photographs and topographic maps; solution of field problems in stratigraphy, structure, and paleontology; written report required. Offered in summer at selected universities.

GEO 460 Geomorphology (3-2-4). Prerequisite: **GEO 223** or permission of instructor. Study of the surface forms of the earth, with emphasis on erosional or depositional processes in different climates and the forms they produce. Laboratory is selected exercises designed to reinforce concepts covered in lecture. *Writing*.

GEO 490 Internship in Geology (1 to 4 credits).
Prerequisite: Permission of instructor. Independent study related to work experience for majors in Geology and Environmental Sciences.

GEO 493 Special Topics in Geology (1 to 4 credits).
Prerequisite: Permission of instructor. Topics to reflect material of special or timely interest which is not likely to be appropriate for regular, continuing course offerings.

GEO 496 Independent Study in Geology (1 to 4 credits). Prerequisite: Permission of instructor. Independent study of material of special or timely interest which is not likely to be appropriate for or covered in regular course offerings. May be repeated for credit with change of topic.

GEO 497 Research in Geology (1 to 12 credits).
Prerequisite: Permission of instructor. Undergraduate research carried out by special arrangement. The student may work independently or as an assistant to a faculty investigator. May be repeated for up to 16 credit hours.

GEO 499 Exit Evaluation (0-1-0).
Prerequisite: Senior standing. Final exit examination and outcomes assessment evaluation required of all graduating seniors. Graded S/U.

German Courses

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Faculty

Professors: Edward R. Haymes; **Associate Professors:** Diana Orendi, Philippa Brown Yin (Chairperson).

Course Descriptions

Students with native experience of German may not enroll for credit in 100-level courses in German. All students with training or experience in German other than a previous course in that language at Cleveland State must consult a counselor in the Department of Modern Languages for assistance in deciding where to enter the German sequence. Failure to seek counseling may result in schedule shifts during the first week of class.

All language courses have the following divisions and courses numbered from:

100-114 (200-214, etc.) concern the development of performance skills;

115-34 (215-234, etc.), the nature of language;

135-64 (235-264, etc.), culture and civilization;

165-89 (265-289, etc.), literature;

190-99 (290-299, etc.), independent and specialized courses

GER 100 200-300-400 Practicum in German (1 to 3 Credits). Prerequisites: Permission of instructor, departmental approval. Specially arranged projects or supervised experiences for non-native speakers in German conducted in the university and in the community, such as special work in the Instructional Media Laboratory, participation in a German play, tutorial activity in a basic German course, and a study or service project involving fieldwork in one of the German communities. Projects arranged between individual students and instructors; title of the project will appear on the student's transcript. May be repeated for credit with a change of topic. S/U only.

GER 101 102 German I,II (4-2-5).
Prerequisites: GER 101: No prerequisite; GER 102: Completion of GER 101 or the equivalent course with C or better or permission of instructor. Essentials of German grammar; practice in speaking, understanding, reading, and writing. Lab fee.

GER 105 205-305 Directed Studies in German (1 to 4 Credits). Prerequisite: Permission of instructor. Teacher-Assisted Directed Studies (TADS) courses for those special needs of individual students not met by the regular course offerings in the areas of reading, vocabulary building, and phonetics. These TADS courses allow such students to begin or continue their study of the German language or of special aspects of it by working on their own with a detailed study guide. Specific topics, level, and number of credits vary according to student's needs and are decided in consultation with course instructor. Students completing one of these TADS courses in German as their first German course at Cleveland State are not eligible for retroactive credit. GER 105 does not normally fulfill the language deficiency. GER 205 and 305 do not normally count toward a German major or minor. (Petitions will be decided by the department chair and the faculty of German.)

GER 192 292-392-492 Special Topics: Study Abroad (1 to 6 Credits). Prerequisite: GER 192: No prerequisite; GER 292: **GER 201**; GER 392: **GER 301**; GER 492: **GER 301**
and one literature or civilization course. Study of a particular topic in German language, literature, or civilization as part of the university's Study Abroad Program. May be repeated with change of topic. **Return to top**

GER 196 296-396-496 Independent Study in German (1 to 6 Credits). Prerequisite: Student must have sophomore, junior, or senior standing. Proposed projects must be approved by a full-time department faculty member (who will serve as the project adviser) and the department chairperson. Student-initiated supervised projects involving German language or literature, such as in-depth study of a particular writer, and special readings in linguistics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between individual students and instructor; title of the project will appear on the student's transcript. May be repeated for credit with change of topic.

GER 201 Culture and Civilization (4-0-4). Prerequisite: Completion of **GER 102** or equivalent with a C or better or permission of instructor. Readings explore German customs, attitudes, history and values in comparison with the U.S. practice and expansion of skills development

GER 202 Literature Survey (4-0-4). Prerequisite: Completion of **GER 102** or equivalent with a C or better or permission of instructor. Reading of cultural and literary texts. Ongoing review and expansion of skills development.

GER 207 Intermediate Commercial German (4-0-4). Prerequisite: Completion of **GER 102** with a C or better or permission of instructor. Introduction to the world of business and technology in Germany. Socio-economic issues that affect business; everyday commercial activities, such as job interviews, on-the-job routines, banking. Continued development of language skills appropriate to the course topic and level.

GER 235 Germany Today (3-0-3).
The course gives a current picture of the German-speaking countries of Germany, Austria, and Switzerland, stressing the period since 1945 and most recent developments since the reunification of East and West Germany. Topical emphasis may change each time offered. Topics include politics, the social and economic situation, education, women's questions, culture and literature, film and other media. May be repeated with change of topic. The course is regularly offered in conjunction with the university's Germany Abroad Program.

GER 240 340-440 Field Study (1 to 6 Credits). Prerequisites for GER 240: Completion of **GER 102** with a C or better or the

equivalent; for GER 340: **GER 301**
and sophomore standing or permission of instructor; for GER 440: 12 credits in German on the 300- or 400-level or permission of instructor. The amount of language preparation necessary to participate in any given field experience to be determined by the department and instructor; specially arranged field experience abroad providing intensive exposure to students' target countries and languages. May be preceded by a special preparatory course, such as supervised individual or group work-study experience in the target country followed by a period of travel; or supervised two- to six-week group travel for students interested in a language- or culture-oriented project in the target country. See course schedule. A field study trip to German-speaking countries will be offered periodically. Program and course content may vary. For example, Summer Campus: Berlin takes place in alternate even-numbered years, and consists of two weeks of intensive preparation at Cleveland State University, four weeks in Berlin (including travel and stays in Germany), and one or two weeks of free travel. Studies concentrate on culture, civilization, and language; includes classes in music and/or political science. The program may also be taken on the graduate level. For further information, contact the **Department of Modern Languages**. *Writing* (students must receive a C or better to receive Writing credit).

GER 293 393-493 Special Topics in German (1 to 4 Credits). Prerequisites for GER 293: Completion of **GER 102** with a C or better or the equivalent; for GER 393: **GER 301** and sophomore standing or permission of instructor; for GER 493: **GER 301** and one 300-level GER course. Topic to be announced in semester course schedule. May be repeated for credit with a change of topic.

GER 301 Composition and Conversation (4-0-4). Prerequisite: **GER 202** and sophomore standing or equivalent. Practice in speaking and writing on an advanced level. Materials may include study of specialized usages, such as business or communication. *Writing*.

GER 315 Phonetics and Contrastive Structures (3-0-3). Prerequisite: **GER 301** and sophomore standing or the equivalent. Extensive practice of German pronunciation in class and in the laboratory. Study of crucial differences in the sounds and grammatical structures of German and English. Linguistic Studies course.

GER 316 Translation Workshop (3-0-3). Prerequisite: **GER 301** and sophomore standing or the equivalent. Introduction to the theory and practice of professional translation, normally from German to English; workshop approach involving class discussion of students' work-in-progress. Work required varies according to students' level of preparation. May be repeated for credit.

GER 371 Introduction to the Study of Literature (3-0-3). Prerequisite: **GER 301** and sophomore standing or permission of instructor. Introduction to the major concepts of literary study with application to masterworks of German literature. *Writing*, *Western Culture and Civilization*.

GER 402 Advanced Composition and Conversation (4-0-4). Prerequisite: **GER 301** and sophomore standing. Continuation of **GER 301** on a more advanced level. Development of style and accuracy. *Writing*.

GER 448 German Culture and Civilization (3-0-3). Prerequisite: **GER 301** and sophomore standing or equivalent. A survey of 200 years of German culture and civilization from 1786 to present. *Western Culture and Civilization*.

GER 491 Senior Honors Project (3-0-3).
Prerequisite: For MLA Honors Students Only. Project must be preapproved by project adviser (who is a full-time faculty member), department chair, and department curriculum committee. An independent research project developed in cooperation with faculty adviser. Completed projects will be submitted in written form, and presented in a public forum.

The following graduate courses are offered in German for candidates of the master of education in curriculum and instruction with a concentration in German (may be repeated with change of topic):

GER 534 Studies in Language and Linguistics (3-0-3)

GER 540 Field Experience Abroad (1 to 4 credits)

GER 564 Studies in Culture and Civilization (3-0-3)

GER 589 Studies in Literature (3-0-3)

GER 592 Special Topics: Study Abroad (1 to 6 credits)

GER 596 Independent Study (1 to 4 credits)

Greek Courses

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Faculty

Associate Professors: Michael Baumer, Derwood C. Smith, Philippa Brown Yin (Chairperson).

Course Descriptions

GRK 301 302 Accelerated Classical Greek Language and Culture I, II (4-0-4). Prerequisites: GRK 301: previous experience in a highly inflected language like Latin or German, or permission of the instructor; GRK 302: GRK 301 with a grade of C or better, or permission of the instructor. An intensive introduction to Classical Greek. The emphasis will be on accelerated development of reading skills. Courses include a cultural component which emphasizes the civilization of the ancient Greek world and the history of Greek literature. Classical and Medieval Studies course.

GRK 350 Accelerated Classical Greek Language and Culture III (4-0-4). Prerequisite: **GRK 302** or its equivalent with a grade of C or better; or permission of the instructor. Students should consult instructor for eligibility. A review of the grammar, syntax, and basic vocabulary for students who have had at least a year of Classical Greek in college or two years in high school. Intended to prepare students for reading both classical and koine Greek. Readings selected from classical authors and New Testament texts. Course includes a cultural component which emphasizes the civilization of the ancient Greek world and the history of Greek literature; a special unit on the place of Greek in the Indo-European family of languages, and principles of English word-borrowing is included. Classical and Medieval Studies course.

GRK 351 Accelerated Classical Greek Language and Culture IV (4-0-4). Prerequisite: **GRK 350** or permission of the instructor. Selected readings from classical authors such as Plato, Xenophon, Euripides, Herodotus or the New Testament. Course emphasizes sight reading, vocabulary-building, and research skills. Course includes a cultural component which emphasizes the civilization of the ancient Greek world and the history of Greek literature. Classical and Medieval Studies course.

GRK 396 496 Independent Study in Greek (1 to 4 credits). Prerequisites: Student must have sophomore, junior or senior standing. Proposed projects must be approved by a full-time department faculty member, who will serve as the project adviser, and the department chair. Student-initiated supervised projects involving Greek language or literature, such as in-depth study of a particular writer; or special readings in linguistics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between student and instructor; project's title will appear on student's transcript. May be repeated for credit with change of topic. Classical and Medieval Studies course.

Health Care Administration Courses

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Faculty

Professor Emeritus: Charles H. Brooks; **Associate Professor:** Jeffrey C. Susbauer (Interim Director); **Assistant Professor:** Georgia Anetzberger, Doohee Lee.

Course Descriptions

HCA 301 The American Health Care System (3-0-3).
Course introduces the student to the health-care system by concentrating on current arrangements for the organization, financing, and delivery of medical-care services in the United States. Emphasizes concepts of accessibility, quality, efficiency, and the effectiveness of medical care. Counts as non-business elective for business students.

HCA 420 Management of Health Care Organizations (3-0-3). Course examines the internal organization and management of health-care facilities. The principles of organization and management will be applied to hospital and nursing-home structure, function, and internal control. The roles of management and professional services will be examined. Management's responsibilities for cost and quality control, as well as the development of proactive marketing strategies, will be discussed. Counts as non-business elective for business students.

HCA 490 Professional Internship (1 to 3 credits).
Prerequisite: Permission of HCA program director. Enables a qualified student to earn credit and gain meaningful professional experience in a health care organization.

HCA 493 Special Topics in Health Care Administration (1 to 3 credits). Prerequisite: Senior standing and permission of instructor and HCA program director. Explores current issues or special topics in health care administration. Topics and course requirements will be announced by the HCA Program office.

HCA 496 Independent Study (1 to 4 credits).
Prerequisite: Permission of HCA program director. Enables a qualified student to investigate special areas of interest in health care administration. Written proposal must be approved by a faculty adviser and HCA program director; a written report must be submitted to faculty adviser.

Health, Physical Education, Recreation and Dance Courses

Faculty

Professors: E. Michael Loovis, Susan Ziegler; **Associate Professors:** Sheila Patterson (Chairperson), Judith Ausherman, Jill Black, Lynn Deering, Eddie T.C. Lam, Richard Hurwitz, Kathy Little, Ken Sparks; **Associate Professor Emerita:** Jane Pease; **Assistant Professor:** Anca Codruta Rafiroiu; **Instructor:** George Morton; **Clinical Assistant Professor:** Susan Uebel; **Term Instructor:** Rosemary Lassiter; **Adjunct Associate Professor:** Stephen Sroka.

Course Areas

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Health Courses

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Course Descriptions

HED 200 First Aid and Emergency Care (2 hours). American Red Cross Certification in Community First Aid, Cardiopulmonary Resuscitation, and OSHA standards.

HED 210 Personal Health (3 hours). Provides an understanding of the responsibility we have for our own health. The themes are personal decision-making and adaptation. Self-assessment inventories are used to involve students in many health issues and provide a means for applying health information in personal decision-making. Becoming a healthy older person is directly related to specific health choices an individual makes at the present time. Therefore the goal of this course is to explore major personal topics and to apply them in order to achieve, maintain, and promote high-level health.

HED 359 Principles of Health Education (3 hours). Course examines the field of health education in terms of historical developments, professional standards, roles, theoretical foundations, ethics, application, and settings. Program planning, development, implementation, and evaluation will also be covered.

HED 450 Theories in Health Education and Health Behavior (4 hours). Provides a broad theoretical base for the analysis of healthy/unhealthy behaviors. The research and theoretical literature will be reviewed in areas such as socio-cultural and environmental factors associated with health behaviors, communications, and behavior change strategies in health education. This course is a foundation for the planning and development of effective health education and health promotion programs.

HED 460 Foundations of a Coordinated School Health Program (4 hours). Designed to provide teachers, counselors, nurses, and administrators with basic knowledge of coordinated school health programs (CSHP). Addresses the process and issues associated with planning, implementing, evaluating, and organizing a CSHP in accordance with national and state guidelines. *Writing*.

HED 461 Methods and Materials for Health Education (3 hours). Prerequisites: **HED 210** or equivalent and **HED 460** or equivalent. Designed to introduce students to productive, creative, and innovative methods needed to implement comprehensive school health education at appropriate grade levels. Students become familiar with organizing and presenting health content, health materials, health curricula, community resources, using technology, and communicating about a healthy lifestyle.

HED 470 Pathophysiology of Disease (4 hours). The study of the etiology of diseases, including progression, diagnosis, and treatment. Focuses on the body's immune defense mechanisms for both chronic and communicable disease; emphasis on basic principles to a variety of examples. Some anatomy and physiology recommended.

HED 471 Substance Abuse Education (3 hours). Provides basic knowledge of the physiological, psychological, and sociological effects of substance use, misuse, and abuse. Examines factors that influence substance use, misuse, and abuse as well as attitudes and behaviors. Drug prevention and intervention programs are examined and evaluated.

HED 472 Consumer Health (3 hours). Examines health products and services, advertising, marketing, quackery and government control, and guidelines for consumer action when deception, misrepresentation, or fraud is encountered. Students will become more informed consumers of health products and services. Implications for health education are considered.

HED 473 Teaching Human Sexuality (3 hours). Course provides concepts and information about comprehensive sexuality-education including moral, physiological, psychological, and social aspects. Emphasis is placed on methodology and organization of human sexuality programs for school and community settings.

HED 474 Stress Management (3 hours). Examines the role and function of stress in everyday life from a physiological, psychological, and sociological perspective. Personal, situational, and environmental sources of stress are explored along the continuum from distress to eustress. Stress management techniques are examined.

HED 475 Nutrition and Physical Activity (3 hours). Study of the relationship between nutrition, physical activity, and health. Topics include macronutrients, micronutrients, water, role of proper nutrition for optimal physical performance, role of nutrition and physical activity for weight control, and prevention and treatment of disease. *Writing*.

HED 476 Teaching Nutrition (3 hours). Course explores various instructional materials and strategies available for teaching concepts of nutrition to learners in school and community settings; provides experience in designing and implementing appropriate instructional strategies. Previous knowledge of basic nutritional concepts is recommended.

HED 477 Social Issues and Needs in Nutrition (3 hours). Study of the relationship between nutrition and the socio-cultural environment. Topics include nutrition and mass media, cancer and diet, nutrients as chemo-preventive agents, drug/nutrient interactions, safety and adequacy of U.S. food supply, world hunger.

HED 480 Practicum in Health (3 hours). Prerequisite: Permission of department chair. A structured, supervised field experience designed to provide an extended, practical experience in a selected health setting; designed and executed by the student in consultation with a member of the faculty.

HED 481 Practicum in Health (6 hours).
Prerequisite: Permission of department chair. A structured, supervised field experience designed to provide an extended, practical experience in a selected health setting; designed and executed by the student in consultation with a member of the faculty.

HED 496 Individual Projects in Health Education (1 hour). Prerequisite: Permission of department chair. Independent project in a selected area of health education. Project must be approved by and arrangements made with permission of project supervisor and department chair. May be repeated for a maximum of four hours.

HED 497 Individual Projects in Health Education (2 hours). Prerequisite: Permission of department chair. Independent project in a selected area of health education. Project must be approved by and arrangements made with permission or project supervisor and department chair. May be repeated for a maximum of four hours.

Health, Physical Education, Recreation Core Courses

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Course Descriptions

HPR 101 Wellness As A Lifestyle (1 hour).
Introduction to lifestyle behaviors over which people can exert some control; emphasis is on benefits of exercise and fitness, proper diet, and stress reduction, along with management of lifestyle behaviors important for good health and lifetime wellness; personal wellness goals are developed. Wellness course.

Physical Education Professional Courses

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Course Descriptions

PED 200 Foundations of Sport, Exercise, and Movement (2 hours). Examination of the disciplines, professions, and careers relating to physical education and sport, including the historical perspective, as well as current issues and problems that influence philosophical, psychological, and physiological aspects of sport and activity participation.

PED 205 Introduction to Sport Management (3 hours). Examines sport and sport-related organizations and acquaints students with job opportunities in the profession. Overview of the body knowledge in sport management. Future trends in sports management will be highlighted. Includes 30 contact hour field experience.

PED 210-213 Group I Forms of Movement (1 hour). Prerequisite: Fundamental skill in each sport covered is required. Persons lacking such skills may attain this skill level by taking the PES equivalent, if available, to develop basic skill proficiency. Development of intermediate skills and knowledge of rules, skill techniques, and strategies of the game. The student will be exposed to a variety of teaching strategies, styles, and learning environments. The course includes a lab teaching opportunity. The following Group I courses will be offered:

PED 210 Archery and Golf
PED 211 Badminton and Tennis
PED 212 Bowling, Table Tennis, Orienteering, Boccie Ball, and Croquet
PED 213 Track & Field and Aerobic Activities

PED 215-218 Group II Forms of Movement (1 hour). Prerequisite: Fundamental skill in each sport covered is required. Persons lacking such skills may attain this skill level by taking the PES equivalent, if available, to develop basic skill proficiency. Development of intermediate skills and knowledge or rules, skill techniques, and strategies of each game or sport. The student will be exposed to a variety of teaching strategies, styles, and learning environments. The course includes a lab teaching opportunity. The following Group II courses will be offered:

PED 215 Lacrosse, Field Hockey, and Touch Football
PED 216 Pickleball, Rugby, Team Handball, Broomball, and Floor Hockey
PED 217 Softball and Basketball
PED 218 Volleyball and Soccer

PED 220-222, 227 and 240 Alternative/Lifetime Sports (1-2 hours). Courses in this block of study are designed to expose the student to the various adventure education-type sport activities. Emphasis will be on the development of sport-specific basic skills and knowledge related to each of the sport activities. The following Alternative/Lifetime Sports courses will be offered (typically in a weekend or other intensive period schedule format):

PED 220 Cross-Country Skiing and Snowshoeing
PED 221 In-Line Skating and Cycling
PED 222 Rock Climbing and Backpacking
PED 227 Aerobic Instructor Training
PED 240 Adventure Sports (2 hours)

PED 225 Movement, Tumbling, and Apparatus (2 hours). The student will have the opportunity to develop the fundamental skills necessary for basic movement activities, tumbling activities, pyramid building, couple stunts, and select pieces of apparatus work. The student will be exposed to a variety of teaching strategies, styles, and learning environments. The course includes a lab teaching opportunity. Attention will be paid to safety, skill analysis, class management, and assessment.

PED 226 Swimming (1 hour). Prerequisite: Red Cross Level 4, Learn to Swim Proficiency. Analysis of aquatic skills, methods and strategies of instruction, progressions, classroom management in aquatic settings, and evaluation.

PED 227 Aerobic Instructor Training (1 hour). Development of skills and knowledge necessary to create and instruct safe and effective aerobic dance classes.

PED 250 Mental Skills Training (2 hours). Designed for student athletes and performers (including musicians) who are interested in improving their practice and competitive behaviors. Focus is on self-assessment, identifying areas in need of improvement, and the application of mental skills and performance enhancement strategies that can be incorporated into an overall mental performance plan.

PED 270 Aquatic Programs (3 hours). Prerequisite: **PED 226**. The study of the broad field of aquatics, including self-propelled and equipment-propelled activities. An understanding of certification programs, including swimming, boating, and sailing, and the ability to effectively contrast programs when more than one exists. An understanding of swimming pool chemistry to pass National Pool and Spa Foundation Pool Operators Course.

PED 285 Adapted Aquatics (2 hours). Instruction leading to Red Cross adapted aquatics certification. Emphasis on instructing adapted physical education through the medium of water; methods of organizing, administering, and implementing a program for the handicapped.

PED 301 Early Childhood/Middle Childhood Physical Education (3 hours). The course will include movement and skill concepts necessary to successfully implement and teach in the prek-5 setting. Major emphasis will be given to developmentally appropriate games, sports, and activities for each grade. Additionally, students will have the opportunity to practice skills and activities learned both in lab and field settings. Attention will be given to the organization, management, and assessment of students in this age group. A wide variety of

teaching strategies, styles, and learning environments will be explored and practiced.

PED 302 Middle Childhood/Adolescent-Young Adult Physical Education (3 hours). Prerequiste: **PED 301**. Development of teaching strategies and styles necessary for the implementation of team, individual, and contemporary (requiring minimum skill acquisition for success) activities from 6th grade through adulthood. Emphasis will be placed on practical teaching concerns, such as skills needed for class control and activity adaptation for special populations as well as sensitivity to the diversity in our classrooms. Special attention will be given to the full inclusion of all children regardless of physical skill, physical or mental disabilities, or environmental limitations of facilities. Course includes a lab assignment which will provide the student with an opportunity to practice teaching in a PES activity course.

PED 316 Health and Physical Education for Classroom Teachers (3 hours). Introduces students to productive, creative, and innovative methods needed to implement school health education and physical education at the elementary grade levels. Students become familiar with organizing and presenting health and physical education content, materials, curricula, community resources, using technology, and communicating about healthy lifestyles. Course includes a service learning component.

PED 322 Kinesiology (3 hours). Prerequisite: **BIO 266**, **BIO 267**. Study of the scientific basis of human movement and the implements used in activity. The biomechanics of physical activity is reviewed and movement is analyzed. The musculoskeletal system is studied and application is made to posture, locomotion, and selected physical-activity skills. The application of biomechanics and anatomy is emphasized during instructional activities and laboratories.

PED 324 Physical Fitness (1 hour). Prerequisites: **BIO 268**, **BIO 269**. Designed for the evaluation and development of personal physical fitness. Hands-on fitness evaluation and exercise prescription for the healthy and cardiac patient are discussed with emphasis on risk factor reduction. This course must be taken with **PED 325** and is designed for physical education majors only.

PED 325 Physiology Of Exercise (4 hours). Prerequisites: **BIO 268**, **BIO 269**. Study of the physiological function during physical activity and the effects of exercise training programs. The functional basis for physical activity and fitness, including metabolic energy sources, cardiorespiratory function, muscle contraction, temperature regulation, and gender comparisons are studied. Laboratory activities focus on the application and measurement of physiological function during exercise. This course must be taken with **PED 324** and is designed for physical education majors only.

PED 328 Legal and Administrative Aspects of Physical Education (4 hours). Legal aspects of physical education will include an overview of the U.S. and Ohio legal system, theories and defenses of negligence, intentional torts, contracts, Americans with Disabilities Act, and appropriate components of the Occupational Health and Safety Act. Administration will include organizational and management theories, scheduling, planning, operation, finance, and administrative computer applications in the school setting.

PED 330 Motor Learning and Development (4 hours). Introductory course in motor learning and motor development; emphasis on utilizing basic knowledge of the developmental and learning processes for more effective understanding as to why and how children and adults learn and perform motor skills. *Writing*.

PED 415 Evaluation in Physical Education (3 hours). Study of the purpose, selection, construction, administration, and evaluation of tests for assessing physical fitness, motor ability, and sport skills. Basic descriptive statistics are used to organize and interpret test scores. Laboratory sessions focus on test administration and statistical analyses.

PED 430 Psychosocial Aspects of Physical Activity (4 hours). This course provides an overview of the fields of sport and exercise psychology and sport sociology. The content focuses on psychological variables (e.g., personality, motivation, achievement anxiety), sociological variables (e.g., environmental influences, group processes) and educational strategies for enhancing health and well-being through sport and exercise. Societal influences on sport (e.g., race, gender, economics) will be explored to provide a better understanding of the relationships between sport and society. *Writing*.

PED 435 Physical Education for Students With Disabilities (4 hours). Study of rationale underlying the provision for physical-education programs for students with disabilities; organization, administration, and conduct of physical education programs for the most prevalent types of educational and medical conditions found in schools and agencies; assists the student to develop placements that adhere to the doctrine of the least-restrictive environment. Includes clinical experiences.

PED 439 Therapeutic Recreation and Disability Sports (3 hours). Examination of leisure/recreation services available for individuals with disabilities; study of impact of federal legislation on the provision for and accessibility of diverse recreational opportunities including high risk, adventure activities; and analysis of elite sport opportunities for individuals with disabilities including the study of national governing bodies that are responsible for the competition with emphasis on the International Paralympic Movement.

PED 440 Modes and Models in Physical Education (4 hours). Prerequisites: **EDB 200**, **EDB 300**, **EDB 301**, **EDB 302**, **EDL 305**, **PED 301**, **PED 302**
with grades of C or better; admission to teacher education; 2.50 overall grade point average, 2.75 grade point average in professional and major coursework. Strategies for instructional planning, implementation, and assessment of physical education programs are presented and analyzed within the context of the multi-age learning setting; development of the following components: goals and objectives, teaching learning maps, functional assessments, learning experiences, teaching templates, and student learning formats. Emphasis on development of a variety of strategies for maximizing learning and effective teaching. Course includes clinical and field teaching experiences. *Writing*.

PED 445 Gateway to the Profession: Communication and Collaboration (3 hours). Prerequites: Concurrent with student teaching (**PED 483**). A course that brings closure to the accrued knowledge and skills relating to all aspects of teaching. The emphasis in course work will focus on the practical application of the information in public or private educational settings. Taken during the student-teaching semester.

PED 450 Psychology of Sport and Exercise (4 hours). Reviews research in the areas of sport and exercise psychology. The major theories and research approaches in these areas are explored with a focus on quantitative, qualitative, and applied research in the field.

PED 454 Sport Sociology (3 hours). Examines the effects of social change on the structure and function of sport. The course explores the popular concept that sport mirrors society through topics such as sport and politics, economics, racism, sexism, violence, deviance, youth sport, academics integrity and sport, and the impact of media on sport.

PED 456 Individualized Physical Education for Children with Special Needs (3 hours). Study of evaluative procedures used to identify the unique needs of students with disabilities in physical education; development of annual measurable goals and benchmarks for helping students acquire motor skills; enables special educators to establish themselves as resource persons. Includes a clinical experience.

PED 461 Sport Governance (3 hours). Examines the organizational goals, structure, membership, policies, and practices of international and American professional and amateur sports. Emphasis will be placed on the Olympic Movement, including the International Olympic Committee, international sports federations, and the national governing bodies. Other sport organizations under exploration include the United States Olympic Committee, the National Collegiate Athletic Association, and American professional individual and team sports.

PED 465 Law and Policy Studies in Sport and Physical Education (4 hours). An overview of the legal and social policy issues most often encountered in sport and physical activity; with emphasis on tort and selected areas of constitutional, commercial, contract, labor, and intellectual propertys law. The law will be applied to the amateur and professional sport environments, recreation and leisure activities, and to instruction and rehabilitation. Leading court decisions will be explained and will guide students in an in-depth study of their choice and a comprehensive risk management presentation.

PED 466 Sport Facility Management (3 hours). Provides an overview of sports facility planning and management, and the relationship between sport stadiums and professional sports. Planning, design, construction, operation, maintenance, security, scheduling, marketing, evaluation, and crowd and risk management of facilities are presented in detail. *Writing*.

PED 467 Sport Marketing (3 hours). Explores the nature and theories of sport marketing. Emphases are placed on the principles of sport product marketing and the interrelationship among product, place, price, promotion, and public relations. Other aspects include the relationship between the marketing mix and consumer behavior, corporate sponsorship, marketing research, and the promotion mix.

PED 470 Seminar in Training and Conditioning (3 hours). Study of the principles of physical fitness and conditioning programs. Focuses on methods to enhance physical fitness and/or sport performance for a variety of individuals including athletes and clinical populations. Practical experience in assessing physical fitness is obtained.

PED 471 Biomechanics of Sport and Fundamental Skills (3 hours). Biomechanics, the study of human movement, will focus on balance, buoyancy, leverage, force, angles of rebound, projectiles, motion, and kinesthesis. They will be used to analyze fundamental movement and create specialized sports skills. These factors will be related to learning theory, coaching techniques, and individualization of instruction. The course, designed to accommodate persons new to biomechanics, will enable sport management personnel to recognize efficient movement in visual media and to describe sport skills accurately. Coaches and teachers will learn to identify error in sport skills.

PED 472 Physiology of Aging (3 hours). Course is designed to develop an understanding of the physiological, social, and emotional changes which accompany the aging process. Emphasis will be placed on evaluation of physical, sensory, motor, and cognitive changes which accompany aging. Special attention will be paid to developing programs for the elderly in exercise, prevention of falling, improvements in strength, and sense of well-being.

PED 477 Prevention and Rehabilitation of Cardiovascular Disease (3 hours). Overview of the methods by which coronary artery disease may be prevented and rehabilitated. Topics include disease process, diagnostic techniques, risk factor modification, electrocardiographic interpretation, exercise testing, and prescription. Program planning and design are addressed with emphasis on policy and procedure.

PED 480 Internship and Senior Seminar (8 hours).
Prerequisites: Senior status and permission of department chair. Specialized field experience in an appropriate setting that provides extensive exposure for the sports manager or exercise/fitness specialist. Includes the development of a professional portfolio and required seminars.

PED 481 Internship and Senior Seminar (12 hours). Prerequisites: Senior status and permission of department chair. Specialized field experience in an appropriate setting that provides extensive exposure for the sports manager or exercise/fitness specialist. Includes the development of a professional portfolio and required seminars.

PED 483 Student Teaching – Physical Education Multi-Age (10 hours). Prerequisites: Prior on-line application to the Office of Field Services is required; must be taken concurrently with **PED 445**. University-supervised student-teaching experience in two separate educational settings to provide both PreK-8 and 9-12 classroom experience. Involves observation and teaching physical education under a mentor teacher's direction, five full days per week for one semester. Required for multi-age teaching licensure in physical education.

PED 493 Special Topics in Sport Education (2 to 4 hours). Study of current topics of interest in the discipline of sport and sport education. Specific topics and hours will be based on analysis of need at the time each course is scheduled and may include such topics as motivating students in physical education, applying sport psychology strategies to enhance performance, the emerging role of women in sport, and improving exercise adherence.

PED 496 Individual Projects in Physical Education (1 hour). Prerequisite: Permission of department chair. Independent project in a selected area of physical education. Project must be approved by and arrangements made with permission of project supervisor and department chair. May be repeated for a maximum of four hours.

PED 497 Individual Projects in Physical Education (2 hours). Prerequisite: Permission of department chair. Independent project in a selected area of physical education. Project must be approved by and arrangements made with permission or project supervisor and department chair. May be repeated for a maximum of four hours.

Physical Education Service Courses

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Course Descriptions

PES 101 Physical Fitness (1 hour). Focuses on principles of physical fitness, risk factors for cardiovascular disease and how to avoid/overcome them through weight control, exercise, and nutrition. Students work to improve personal fitness levels and develop individualized fitness programs for future participation.

PES 102 Physical Fitness Orientation (2 hours). Introduction to personal fitness programs with emphasis on measurement, evaluation, and the development of physical fitness and positive long-term fitness attitudes.

PES 104 Jogging (1 hour). Introduction to techniques, principles, and benefits of jogging.

PES 105 Weight Training (1 hour). Introduction to techniques, principles, and benefits of weight training.

PES 106 Walking for Aerobic Fitness (1 hour). Designed to progressively develop cardiorespiratory endurance by walking. Individuals who are at below-normal physical fitness levels will benefit most. Regular walking outside of class will be required.

PES 107 Cross-Training (1 hour). A program of fitness activities that stresses cardiovascular aspects of training. Emphasis on the use of several sports for the purpose of training for one specific sport. Whole-body fitness will include strength, flexibility, and anaerobic power.

PES 108 Muscle Madness (1 hour). Resistance training class to music; athletic movements work all major muscle groups; pre-choreographed routines use high repetitions and low weights to increase muscle endurance and strength; conducted off-campus at the Downtown YMCA.

PES 109 Distance Running (1 hour). Prerequisite: Ability to run continuously for 30 minutes. Intended for person who has progressed through the beginning stages of jogging and running. Knowledge and abilities are expanded with respect to the physiological and psychological changes that occur for the distance runner.

PES 110 Basketball (1 hour). Introduction to basic rules of basketball and fundamentals of team play; emphasis is placed on individual skill development.

PES 111 Volleyball (1 hour). Introduction to basic rules and concepts of coed volleyball; emphasis on individual skill development.

PES 112 Intermediate Volleyball (1 hour). Designed to give the volleyball enthusiast an opportunity to explore advanced skill techniques of the game. Focus is on the development of strategies that apply to the game of "Power Volleyball."

PES 113 Personal Training Instructor (1 hour). Three certifications are earned in this intensive fitness class: CPR, principles of YMCA health and fitness, and YMCA personal training instructor. Learn how to properly use cardiovascular and strength (free weights and selectorized) equipment, set up workouts for others, effective goal setting, and communication strategies. Includes muscle anatomy and physiology, practical sessions with various equipment, and case studies. Textbooks and manual are required at additional cost.

PES 114 Relaxation Training (1 hour). Designed to assist students in understanding the impact of stress on their lives, recognizing early warning signs of stress, and developing strategies to reduce levels of stress and tension. Course focuses on the variety of techniques used to achieve a state of attentive relaxation.

PES 115 Spinning I (1 hour). Beginning stationary cycling program. Learn how to properly use the bike and manipulate it to create a challenging workout. Experience a journey of flat roads, sprints, jumps, uphill climbs, and downhill runs. Motivational music is used to get into the rhythm of the ride.

PES 116 Spinning II (1 hour). Intermediate stationary cycling program. Learn how to properly use the bike and manipulate it to create a challenging workout. Experience a journey of flat roads, sprints, jumps, uphill climbs, and downhill runs. Motivational music is used to get into the rhythm of the ride.

PES 117 Rock Climbing (1 hour). Experience "free climbing" and "bouldering" in an indoor rock environment; basic climbing and movement techniques; belay techniques and basic climbing-specific knot tying; become belay certified; additional fee required; conducted at CSU rock wall facility and off-campus at Cleveland Rock Gym.

PES 118 Intermediate Wallyball (1 hour). An introduction to the basic rules and concepts of coed wallyball (similar to volleyball except played in a racquetball court); emphasis is on refinement of skills of the game of volleyball.

PES 119 Field Hockey (1 hour). Designed to develop fundamental skills and knowledge of rules, game-play strategies, and skill techniques in the game of field hockey; game-specific physical conditioning also emphasized.

PES 120 Beginners Swimming - Level 1-4 (1 hour). For both the nonswimmer and low-skilled swimmer; includes Red Cross beginner and advanced beginner training.

PES 121 Intermediate Swimming - Level 5-6 (1 hour). For the individual with middle-range swimming skills; based on the Red Cross learn-to-swim format.

PES 122 Swimmers - Level 7-8 (1 hour). For the individual who has mastered the middle-range swimming skills and who wishes to develop greater swimming competency; based on the Red Cross learn-to-swim format.

PES 123 Synchronized Swimming (1 hour). Introduction to basic stunts of synchronized swimming; emphasis on individual skill development.

PES 125 Water Exercise Certification (2 hours). Prerequisite: Certification as aerobics instructor, life guard, or Water Safety Instructor (WSI). Development of skills and knowledge to create and instruct safe and effective water aerobic/exercise classes; preparation for becoming certified by the Aquatic Exercise Association.

PES 126 Lifeguard Training (2 hours). Prerequisites: Swim 500 yards continuously performing at least 50 yards each of the front crawl, breast stroke, side stroke, lifesaving stroke, elementary backstroke; surface dive to 9 feet and retrieve 10-pound brick; surface dive to 5 feet and swim 15 feet underwater; and tread water for 1 minute. Regular Red Cross course leading to certification in lifeguard training. Standard First Aid and CPR must be current by conclusion of course.

PES 127 Water Safety Instructor (2 hours). Instruction leading to Red Cross Water Safety Instructor certification; emphasis on

development of swimming skills and methods of organization, teaching, and skill analysis of swimming programs.

PES 128 Aquatic Fitness (1 hour). Prerequisite: Intermediate swimming skills. Focuses on principles of physical fitness applied to aquatic activities. Students work to improve personal fitness levels through swimming and other activities in the pool.

PES 130 Beginning Springboard Diving (1 hour). Basic diving instruction from both the one- and three-meter boards.

PES 132 Skin Diving (1 hour). Prerequisites: Swim 50 feet underwater, perform survival float 20 minutes, tow an inert swimmer 40 yards, swim 300 yards in a maximum of 10 minutes. Introduction to the safe handling of mask, fins, and snorkel, and the related underwater environment.

PES 134 Scuba Diving (2 hours). Prerequisites: Swim 75 feet underwater, perform survival float 20 minutes, tow an inert swimmer 50 yards, swim 400 yards in less than 10 minutes, permission of instructor only. Opportunity to learn safe skin- and scuba-diving skills. N.A.U.I. and Y.M.C.A. certification available upon successful completion of course work plus additional open water tests. Additional fee charged.

PES 136 Canoeing and Small Crafts (1 hour). Designed for gaining knowledge of small craft safety and acquiring practical experience in the proper handling of small crafts; emphasis placed on canoeing. Previous minimum background through Red Cross Intermediate Swimming recommended.

PES 138 Basic Sailing (1 hour). Course offered in conjunction with American Red Cross. Provides hands-on experience in boat handling, points of sail, types and classes of boats, sails and rigging, required and recommended equipment, safety and rescue techniques, artificial respiration.

PES 140 Modern Dance I (1 hour). Introduction to the fundamental theories and skills of modern dance. May be repeated for up to 4 hours.

PES 141 Modern Dance II (2 hours). Continued study of the fundamental theories and skills of modern dance. May be repeated for up to 8 hours.

PES 146 Jazz Dance I (1 hour). Introduction to the fundamental theories and skills of jazz dance. May be repeated for up to 4 hours.

PES 147 Tap Dance I (1 hour). Introduction to the skills, rhythms, and stylization of tap dance.

PES 148 Tap Dance II (1 hour). Expanding on previous techniques of Tap Dance I with emphasis on complex phasing.

PES 150 Ballet I (1 hour). Introduction to the fundamental theories and skills of classical ballet. May be repeated for up to 4 hours.

PES 151 Ballet II (2 hours). Continued study of the fundamental theories and skills of classical ballet. May be repeated for up to 8 hours.

PES 154 African Dance (1 hour). Focuses on performance, understanding, and enjoyment of West African traditional dance in order to develop a fundamental awareness and appreciation of it as an art form and its social and cultural contributions to society.

PES 156 Traditional Social Dance I (1 hour). Introduction to the basic steps of various social dances, including the fox trot, waltz, jitterbug, polka, and cha-cha.

PES 157 Traditional Social Dance II (1 hour). Continued study of various social dances, including the fox trot, waltz, jitterbug, polka, cha-cha, and tango.

PES 158 Aerobic Jazz (1 hour). Includes basic jazz exercises and a variety of easy and fun-filled dance routines. Dances are combined into an aerobic framework (continuous rhythmic movement), warm-ups, high-level activity, and cool-down periods.

PES 160 Water Aerobics (1 hour). A non-swimming aerobic and dance exercise class for adults of all age groups and activity levels. Taught in the shallow water, this course uses choreographed movements to provide toning, conditioning, and aerobic benefits along with aesthetic experiences and body awareness. The activity uses the water to cushion joints, neutralize gravity, and add buoyancy.

PES 162 Yoga I (1 hour). Comprehensive instruction in the three basic aspects of classical Yoga: exercise, correct breathing, and relaxation/meditation. Yoga theory, scheduling, stress management, and nutrition discussed in relation to individual goals. American Yoga Association instructors.

PES 163 Yoga II (1 hour). Prerequisite: **PES 162**. Emphasizes the exercise portion of the curriculum and increasing the number and the difficulty of exercises while working within individual limitations; several new breathing techniques also taught. American Yoga Association instructors.

PES 165 Self-Defense (1 hour). Study of preventive measures and self-protection techniques.

PES 166 Beginning Fencing (1 hour). For the beginner, course focuses on the attack and defense techniques using the foil.

PES 167 Intermediate Fencing (1 hour). Prerequisite: **PES 166** or equivalent. Further development of attack and defense techniques using the foil.

PES 168 Beginning Tae Kwon Do (1 hour). Introduction to the traditional Korean martial art of self-defense, including basic principles of punching, kicking, striking, blocking, and practical self-defense skills. Rank/belt promotional test is available at the end of the course.

PES 169 Intermediate/Advanced Tae Kwon Do (1 hour). Prerequisite: **PES 168** or permission of instructor. The skills of the novice are developed through reinforcement of basic techniques. Advancement of rank/belt is possible at the end of the course.

PES 170 Aikido I (1 hour). Introduction to this graceful, dancelike, and nonviolent Japanese art of self-defense, includes study of the basic movement and tumbling skills, principles of centering, energy flow and focus, and blending of energies.

PES 171 Aikido II (1 hour). Prerequisite: **PES 170**
or permission of instructor. Continued practice of the basic techniques and principles learned in beginning Aikido as well as the introduction of skills and techniques. Testing for rank is possible at the end of the course.

PES 174 T'ai Chi Ch'uan I (1 hour). Ancient nonaggressive Chinese martial art which also serves as a form of moving meditation and exercise. There is a short-form course consisting of 33 movements which can be learned and understood in a semester session.

PES 176 Golf (1 hour). Introduction to fundamental golf skills, rules, etiquette, equipment, and playing opportunities. Analysis of swing by instant video replay is used.

PES 178 In-Line Skating (1 hour). Covers basics to more advanced moves for both novice and experienced in-line skaters; street smarts, safety techniques, and how to care for equipment; training steps for in-line racing; students must supply own equipment.

PES 179 Cycling (1 hour). Basic riding techniques and essentials of training for mountain biking, touring, commuting, racing, or pleasure-riding; how to ride safely and confidently in traffic; meets needs of the serious cyclist and those riding for fun and fitness. Students must supply own equipment.

PES 180 Badminton (1 hour). Course designed for various levels of badminton skill with individual and group instruction in basic skills and strategies for singles and doubles play.

PES 182 Beginning Tennis (1 hour). Introduction to the basic rules of tennis and fundamentals of singles and doubles play; emphasis on individual skill development.

PES 183 Intermediate Tennis (1 hour). Continuation of individual skill development with emphasis on technique and game strategy.

PES 185 Bowling (1 hour). For all levels of bowling skill from beginner on up; a programmed recreational activity conducted off campus.

PES 187 Beginning Squash (1 hour). Introduction to the fundamental skills, knowledge, and values of the game of squash racquets including application of abilities in game situations.

PES 188 Beginning Racquetball (1 hour). Introduction to rules, strategies, and etiquette of racquetball; opportunity to play all four-wall variations of the game: singles, cut-throat, and doubles in a coed setting.

PES 189 Intermediate Racquetball (1 hour). Designed to give the racquetball enthusiast an opportunity to explore advanced skill techniques of the game, focusing on the development of strategies for the improvement of a player's skill and understanding of the game.

PES 190 Tumbling and Trampoline (1 hour). Introduction to skill techniques needed to perform basic moves on the mats and trampoline. Focus is on values and safety. Activities designed to develop body awareness and progression from simple to complex skills.

PES 195 Skiing (1 hour). Development of knowledge and skills in beginner, intermediate, or advanced, intermediate snow skiing; conducted off campus. Additional fee charged.

PES 198 Adapted Physical Education Programming (1 hour). Offered to all students who, because of permanent or temporary disabilities, cannot participate in the regularly offered physical activity courses. Students will be involved in activities designed to deal with their specific problems, and receive 1 hour for their efforts. May be repeated for up to 8 hours.

PES 199 Special Programs (1 hour). Prerequisite: Permission of department chairperson. Designed for the student who may wish, because of special interest, to receive hour for participation in recreational or sports activities not included in the courses listed above. Students wishing to receive hour for this must report to the Physical Education office to make arrangements for approval and verification of the activity. May be repeated for up to five hours.

PES 240 Modern Dance III (2 hours). Prerequisite: **PES 141** or permission of instructor. Further study of modern-dance theory and skill, with emphasis on increasing physical competence and understanding of underlying theory. May be repeated for up to 8 hours.

PES 250 Ballet III (2 hours). Prerequisite: **PES 151** or permission of instructor. Further study of the theory and skills of classical ballet, with emphasis on increasing physical competence and understanding of underlying theory. May be repeated for up to 8 hours.

Health Sciences Courses

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Faculty

Professors: Bette Bonder, Richard Rakos; **Associate Professors:** Lori Avedisian, John Bazyk (Chair, Department of Health Sciences), Susan Bazyk, Beth A. Ekelman (Director, Bachelor of Science in Health Sciences Program), Glenn Goodman (Director, Master of Occupational Therapy Program), John Jeziorowski, Mary K. Milidonis (Director, Master of Science in Health Sciences Program), Ann Karas Reinthal (Director, Doctor of Physical Therapy Program); **Assistant Professors:** Andrew Lammers, S. Maggie Maloney, Kathleen J. Pantano, Todd Pesek, Paul Sung; **Adjunct Assistant Professors:** Susan Levy Wayne, Karen O'Loughlin.

Course Descriptions

HSC 200 Introduction to Health Sciences (3-0-3).
This course will address health sciences as a coherent group of disciplines concerned about the functional health of the individual, areas of concern and study, service delivery, the nature of the services provided, opportunities within selected fields, and the relationship of each field with other related fields within the health sciences; and the impact of changes in health-care delivery on these fields.

HSC 201 Culture and Human Sexuality (3-0-3).
This course examines the influence of cultural values and beliefs on sexual practices, provides an overview of sexual biology, and considers the ways in which culture affects sexuality, sex education, and reproductive practices. Cross-listed with **ANT 221**. *Social Science (effective through Fall 2006)*.

HSC 203 Medical Terminology (1-0-1).
This online course offers a systematic approach to understanding medical terminology. The focus is to enable students to use this specialized language in a professional health care environment and in scholarly and professional writing. The course is designed to meet the prerequisite requirement for admission to professional programs in the health sciences.

HSC 220 Infant Health and Development (4-0-4).
This course will focus on human development in the first three years of life. It will examine normal development and health-promoting factors for the prenatal and 0-to 3-year periods. Among the developmental processes covered are intellectual, social, emotional, and physical growth. The course will explore the psychological, social, and cultural influences on infant development, including risk and protective factors for infant health. The class will examine factors related to optimal infant development, and discuss the broader social implications of development in the first three years of life.

HSC 305 Culture and Health Care (3-0-3). Prerequisites: One of any of the following courses: **HSC 200** (Introduction to Health Careers); **ANT 100** (Human Diversity, formerly Introduction to Anthropology); **PSY 101** (Introduction to Psychology); **SWK 200** (Introduction to Social Work); **SOC 101**
(Introduction to Sociology); or permission of instructor. Course examines the ways in which culture affects health and health care, including perceptions of health, disease, treatments, and the values associated with these factors. The need for cultural sensitivity in health care is stressed. *Human Diversity*.

HSC 345 Child Abuse and Neglect (3-0-3).
This course examines current theory and research on the causes and consequences of child maltreatment. Using an interdisciplinary approach, the course will explore the history and definition of child maltreatment, parental and contextual influences on maltreatment, and the short- and long-term effects of child maltreatment. Contemporary medical, social, psychological, and legal issues in child maltreatment are discussed.

HSC 346 Women's Health (3-0-3).
This course will examine psychological, social, and behavioral influences on women's health. The course will focus on the interplay of lifestyle factors, and mental and physical health in women. Topics covered include high-risk health behaviors, stress, weight, sexuality, fertility, and promoting health and wellness among women. Emphasis is on understanding women's health from an interdisciplinary perspective.

HSC 381/581 Pathology (4-0-4).
Prerequisite: A physiology course or permission of instructor. This course provides a survey of health conditions as well as the management of common disorders. The continuum from optimum to compromised health states will be discussed relative to specific conditions. Common models of conditions, which affect health, will be explored as related to medical management. A discussion of specific disorders and related management will be organized according to their etiology, epidemiology, pathophysiology, clinical manifestations, and management as applicable to patients with commonly occurring disorders.

HSC 393 Selected Topics in Health Sciences (1 to 6 credits). Selected, variable topics in health sciences will be investigated. The capstone project requirement will be listed under this course and identified by section title and number.

HSC 407/507 Basic Pharmacotherapeutics (2 or 3 credits).
Prerequisites: Pathology and Physiology or equivalent; Cell Biology, Organic Chemistry, and Biochemistry are recommended; or Permission of Instructor. This course is an upper level introduction to the basic principles of pharmacotherapeutics and pharmacologic intervention as applied to rehabilitative therapeutic management of clients/patients across the lifespan. The course will focus on the mechanisms of drug action and interaction, observable clinical signs and symptoms that may impact appropriate rehabilitative therapeutic management, and the proper role of pharmacotherapeutics in the overall plan of patient care.

HSC 408/508 Clinical Hematology (4-0-4).
Prerequisites: Microbiology, Histology, Cell Biology, or Permission of Instructor. This course provides an in-depth study of the fundamental molecular, cellular, and systems-based human physiologic and pathophysiologic concepts as they apply to the study of the elements of blood and blood producing tissues. Clinical principles applicable to testing, evaluation, and therapeutic intervention across the lifespan and in altered states of wellness are considered.

HSC 422/520 Physiology for the Clinical Sciences (4-1-4). Prerequisites: A biology course with lab at or above the 200 level and upper-class standing, or permission of instructor. An in-depth study of the fundamental molecular, cellular, and systems-based physiologic concepts as they apply to homeostasis; and as they relate to aspects of health, adaptation, and rehabilitation. Physiologic principles applicable to testing, evaluation, and therapeutic intervention across the lifespan and in altered states of wellness are considered. Students complete in-class and virtual lab assignments. Lab fee.

HSC 426/526 Functional Performance of Older Adults (3-0-3). Prerequisite: Undergraduate course in introductory psychology. Assessment and intervention designed to assist older adults to accomplish daily activities, including individual, social, and environmental factors. *Writing (effective Spring 2008).*

HSC 438H Honors Independent Research I (2 credits). Prerequisites: Health Sciences Honors Program Status, **HSC 484**. Facilitates implementation of supervised individual or group research. Students admitted to the Health Sciences Honors Program meet with their adviser and implement a research project proposed and approved in HSC 484 Advanced Research and Writing in Health Sciences.

HSC 439H Honors Independent Research II (2 credits). Prerequisites: Health Sciences Honors Program Status, **HSC 484** and **HSC 438H**. Students prepare and submit a manuscript describing their honors research and participate in a research symposium in which they present their projects and field questions from the Health Sciences Honors Committee, faculty, students, and community participants. *Writing Across the Curriculum (effective Fall 2006)*.

HSC 440H Honors Cooperative Education Career Experience (2-4 credits). Prerequisites: Health Sciences Honors Program Status, **CSC 321**; one approved Honors Contract Course and one approved graduate HSC course; or two approved HSC graduate courses applied toward Honors Clinical Cooperative Education Track. Students complete a departmentally approved clinical cooperative education experience and an analysis of relevant literature supporting the student's clinical track experience. Approximately 2 hours on-site for each credit hour per week. There is a Web-discussion component to this course. *Effective Spring 2008*.

HSC 441H Honors Cultural Competency Cooperative Education Experience (2-4 credits). Prerequisites: Health Sciences Honors Program Status, **CSC 321**; HSC 505; one approved contract course toward Honors Cultural Competency Track. Students complete a departmentally approved cultural competency cooperative education experience and develop an innovative, creative, or research-based response to the experience connecting theory and practice and demonstrating interpersonal and/or cultural competence. Approximately 2 hours on-site for each credit hour per week. There is a Web-discussion component to this course. *Effective Spring 2008*.

HSC 457 Human Gross Anatomy Laboratory (0-4-2). Co-requisite: **HSC 475** or permission of instructor. Laboratory sessions include dissection of human cadavers, examination of human skeletal material, and anatomical models. Lab fee.

HSC 467/567 Practicum in Gerontology (1-0-1).
Prerequisite: Undergraduate course in introductory psychology; course to be taken with **HSC 426/526** or by permission of instructor. Shadowing and discussion of observations in community-based gerontology settings.

HSC 475 Human Gross Anatomy (4-0-4). This description effective beginning Fall 2006. Prerequisites: A biology course with lab at or above the 200 level and upper-class standing, or permission of instructor. Co-requisite: **HSC 457**. Detailed dissection and examination of the back, upper extremity, lower extremity, trunk, and internal structures with an emphasis on function.

HSC 476/576 Neuroscience Systems (4-0-4).
Prerequisites: A biology course with lab at or above the 200 level and upper-class standing, or permission of instructor. Co-requisite: **HSC 478**. This course is a study of the structure and function of the human central and peripheral nervous system including vascular components and special senses.

HSC 478/578 Neuroscience Lab (0-2-1). Co-requisite: **HSC 476**. Laboratory sessions include human nervous system material in the course atlas, human brain dissections, slides, overheads, and anatomical models. Lab fee.

HSC 483 Writing in Health Sciences (2-0-2).
Co-requisites: Must be concurrrently enrolled in any 300-400 level health sciences course. Prerequisite: Permission of instructor. Designed to enhance the writing skills of students, especially with respect to conceptual papers according to APA or AMA format. The instructor, in consultation with the student will determine the topic of the written report. May be taken multiple times; limit one per semester. *Writing*.

HSC 484 Advanced Research and Writing in Health Sciences (5-0-5). Prerequisites: Junior standing; **MTH 147** or **PSY 311** or permission of instructor. Understanding methods of inquiry in health sciences, including quantitative and qualitative methods for gathering and analyzing data, and critiquing and interpreting research. Theory, design, and basic statistics involved in survey and experimental research. Students complete a research grant proposal and scholarly presentation. *Writing*.

History Courses

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Faculty

Professor: David J. Goldberg, Donald Ramos; **Professors Emeriti:** David Adams, William I. Shorrock; **Associate Professors:** Gregory Conerly, Thomas Humphrey, Elizabeth Lehfeldt, Joyce Mastboom (Chair), Deborah L. Pearl, Karen Sotiropoulos, Mark T. Tebeau, Robert A. Wheeler; **Associate Professors Emeriti:** Thomas L. Hartshorne, Lee Makela; **Assistant Professors:** Stephen Cory, Meshack Owino, Robert S. Shelton, José Solá, J. Mark Souther, Nicole Tarulevicz, Regennia N. Williams, Laura Wertheimer.

Course Descriptions

HIS 101 Western Civilization I (4-0-4).
History of western civilization to 1648, with emphasis on Greek and Roman civilization, the medieval world, the Renaissance and Reformation, and the transition to the modern era. *Western Culture and Civilization*, *Arts and Humanities*.

HIS 102 Western Civilization II (4-0-4).
The history of modernization in the West, including the development of rationalism and scientific thought, and the upheaval of the French Revolution. Emphasis on the growing inter-relatedness of Europe with the rest of the world as a result of industrialization, the nation-state, and imperialism, culminating in the 20th century with World Wars and the search for an international order. *Western Culture and Civilization*, *Arts and Humanities*.

HIS 110 United States History Survey – Discovering Freedom in America (4-0-4). This course gives students an understanding of significant themes and ideas that shape our changing notion of freedom, independence, and citizenship. These historical concepts fundamentally influence how we view the inhabitants of North America from the fifteenth century through the end of the twentieth century. This course investigates how those people changed the meanings of these ideas, expanding and contracting them at various points to uncover what they mean today. *Western Culture and Civilization*, *Arts and Humanities*.

HIS 111 United States History to 1877 (4-0-4).
A study of the settlement of the Colonies and the transplanting of European institutions to the Western hemisphere, the achievement of American independence, the formation of the American government, the beginnings of industrialism, and the social and political conflicts leading to the Civil War. *Arts and Humanities*, *Western Culture and Civilization*.

HIS 112 United States History Since 1877 (4-0-4).
A study of principal developments in American history from reconstruction of the South to the present, including post-Civil War conflict; Western expansion; agricultural, and industrial development; progressive reform and the New Deal; and domestic and foreign policies since World War II. *Arts and Humanities*, *Western Culture and Civilization*.

HIS 165 Introduction to Latin American History (4-0-4).
Survey of Latin American history from its colonization to the present time. Examination of various facets of Latin America , including politics, economy, and culture. *Nonwestern Culture and Civilization*, *Arts and Humanities*.

HIS 175 Introduction to African History (4-0-4).
Examination of the cultural history of African societies from before the present era through the past 2,000 years, with an emphasis on the ways in which Africans resisted European cultural hegemony and defined for themselves distinctive, modern African cultures. *Nonwestern Culture and Civilization*, *Arts and Humanities*.

HIS 185 Survey of Middle Eastern History (4-0-4).
Survey examines Middle Eastern history from the great kingdoms of the pre-Islamic past to the troubling events of recent years, with a concentration upon the formation of the modern Middle East. The course will analyze recurrent themes, examine key problems in Middle Eastern history, investigate a wide variety of primary sources, and discuss critical issues that led to the creation of the modern Middle East. *Nonwestern Culture and Civilization*, *Arts and Humanities*.

HIS 200 Introduction to Geography (4-0-4).
A comprehensive survey of the field of geography as it relates to the study and teaching of social studies and history. Course provides a general overview of a number of approaches useful to the study of history such as Historical Geography, Economic Geography, Environmental Geography, and World Regional Geography. Course serves as an introduction to basic geographical concepts within the context of social studies.

HIS 201H Urban America in the Last Half of the 20th Century: Crises/Opportunities/Solutions - Cleveland - Honors (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program. This course will explore the dynamic changes which altered the economic, social, political and cultural context of Cleveland since 1945. It will analyze why and how the city responded to the challenges and opportunities it faced through the eyes of participants. Students will use newspapers, television news archives, manuscript collections, and interviews with the participants themselves to determine why some options were taken and others rejected. The course will be especially conscious of the increasing significance in both numbers and influence of African-Americans. *African-American Experience*, *Arts and Humanities*, *Human Diversity*, *Writing*.

HIS 215 History of African-Americans to 1877 (4-0-4).
A topical survey of the African-American Experience from Africa through the enslavement in the Americas to the end of the post-Civil War reconstruction with special emphasis placed on the acculturation and enslavement processes, including a detailed study of the history of the institution of slavery. Black Studies; *African-American Experience*, *Arts and Humanities*, *Human Diversity*.

HIS 216 History of African-Americans Since 1877 (4-0-4). Further emphasis placed on the rise of African-American institutions in America; the church, the press, newly free African-Americans in the South; the aftermaths of the abolitionist movement, the Civil War, and Reconstruction. Black Studies. *Human Diversity*, *African-American Experience*, *Arts and Humanities*.

HIS 227 Power, Authority, and Society in Nonwestern Communities (4-0-4). An examination from an historical perspective of the way

selected groups of Asian, African, and Latin American societies organize themselves with respect to power and authority to cope with a set of similar social problems. Attention will also be given to how changes take place in political organization and in political cultural identity, particularly at the mass level. The course makes extensive use of popular texts and stories, photographs and video, and other primary sources from the cultures studies. Cross-listed with **ANT/PSC 227**. *Nonwestern Culture and Civilization*, *Social Science*.

HIS 271 Empire's End: British Asia. (4-0-4). *Effective Spring 2008.* This course will focus on the end of the British Empire, the part that was Asia. The main focus will be on South Asia, especially the emergence of the independent nations of India and Pakistan. We will more briefly consider some other new nations of South Asia, in particular Sri Lanka and Bangladesh. Our focus will then move to China and the colony of Hong Kong. We will also study the British withdrawal from Burma, the collapse of Malaya, and the emergence of Malaysia, Singapore and Brunei. At the end, we will consider what the process of decolonization meant both for the new nations and for Britain. *Arts and Humanities*, *Nonwestern Culture and Civilization*, *Writing*. *[Note: General Education status effective for Spring 2008 only.]*

HIS 272H Cultural Interactions: The Japanese Experience - Honors. (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. The course will first discuss elements constituting the core of the Japanese culture, both traditional and modern, then focus on influences exerted on Japan by China and Korea beginning in the fifth century and from Europe and the United States after the mid-nineteenth century. The concluding portion of the course will examine influences by Japanese popular culture on both Asia and the West. *Arts and Humanities*, *Nonwestern Culture and Civilization*.

HIS 274 Introduction to the Middle East (4-0-4). This course is designed to introduce students to the history, religious diversity, political systems, economy, and culture of the Middle East. The course includes a brief examination of ancient Middle Eastern civilizations and its history to the world. The course also examines important historical junctures influencing the region today. It will include the contents, similarities, and diversities of Middle Eastern culture. The course examines three monotheistic religions and how Middle Easterners vary widely in their religious beliefs. It explores how this religious variance impacts Middle Eastern culture. The course introduces students to multiple aspects of the arts. Cross-listed with **ARB 274** and **PSC 274**. *Nonwestern Culture and Civilization*.

HIS 284 History of Women (4-0-4).
Survey of the history of women in Europe and America from 1750 to the present, including the changing position of women in the family, at work, in politics, and in society. Includes comparative study of women at different times and in different cultures and integrates women's history and conventional history. Women's Studies; *Arts and Humanities*, *Human Diversity*.

HIS 300 Everyday Life in Early America, 1607-1865 (4-0-4).
An exploration of how Americans lived and how they thought from the earliest settlements through the Civil War. Emphasis varies from year to year, but will consider such topics as religion, reform movements, transportation, education, architecture, Western expansion, foods, fads, and fashions. *Western Culture and Civilization*.

HIS 301 American Cultural History, 1865 to the Present (4-0-4). Study of the social and cultural history of the United States , emphasizing the ways in which the beliefs, values, and world views of the American people are related to prevailing social conditions. *Writing*, *Western Culture and Civilization*.

HIS 302 History of American Political Parties (4-0-4).
Survey of the development of the American party system from 1800 to the present, including distinctions between party and faction, Federalist party, Jacksonian Democrats, Whigs and Republicans, third parties, party organization at local and national levels, voting behavior and election strategies. *Western Culture and Civilization*. ***Note:*** *Effective Spring 2008: New title:* ***US Slavery, Abolition, & Politics, 1820-1860****; New description: This course examines the American slave system of the nineteenth century, challenges to slavery, and the resulting political contest that eventually let to southern secession and civil war. The following General Education statuses effective Spring 2008 only: African-American Experience*, *Human Diversity*, *Western Culture and Civilization*, *Writing*.

HIS 303 Recent U.S. Social History (4-0-4).
Traces social change in the United States from the Civil War to the present with special emphasis on changes in social class formation, family, neighborhood, community, race, ethnicity, gender, and work. Traces major structural change in society, politics, and economy in relation to social transformations and impacts of technological change, urbanization and bureaucracy. *Writing*, *Western Culture and Civilization*.

HIS 304 U.S. Urban History (4-0-4).
Analysis of U.S. urban development with focus on spatial development of U.S. cities and changing internal structure and institutions of cities from the Colonial period through the mercantile, industrial, and post-industrial city. Traces the city's impact on migrants and others and their responses. *Writing*, *Western Culture and Civilization*.

HIS 305 Social Thought of African-Americans (4-0-4).
Historical inquiry into the major social, cultural, and intellectual developments among Black Americans, including such movements as antebellum abolitionism, African immigrationism cultural and political accommodation, and Pan- Africanism and Negritude as expressed in the writings of major authors. Black Studies;*Human Diversity*, *African-American Experience*.

HIS 306 History of Ohio (4-0-4).
The early development of Ohio as a territory and a state, transportation problems and economic development, industrialization and urbanization and their economic and social consequences, and ethnic composition.

HIS 307 History of Cleveland (4-0-4).
Origins and early development of Cleveland and the Western Reserve, emergence of Cleveland as a major industrial city, emphasis upon social economic, technological, cultural, and political developments with special attention given to the role of ethnic and minority groups.

HIS 308 20th-Century American Labor History (4-0-4). A general survey of American labor history with particular emphasis on the impact that industrialization had on work itself. Topics will include the varying strategies adopted by management to control labor; the history of labor unions; and the special role played by African-Americans, women, and immigrants within the workforce. *Western Culture and Civilization*.

HIS 309 American Immigration History (4-0-4).
A survey of immigration to America from the 1830s until the present day. The course focuses on the religious, work, political, and cultural life of various immigrant groups as well as the process of adaptation and Americanization. The rise of anti-immigrant movements and efforts to restrict immigration are also emphasized. *Western Culture and Civilization*.

HIS 310 Indians in American History (4-0-4).
A study of Native American White contact since the Colonial period, emphasizing differences in cultural outlook, dispossession from Indian lands, changing political status of Native Americans, and the nature of missionary and governmental assimilation efforts. Attention will be given to the dynamics of cultural conflict and Indian response to assimilation policies. *Human Diversity*.

HIS 311 Introduction to Public History (4-0-4).
An introduction to the applied uses of history in such areas as museums, archives, labor, historical societies and community, as well as corporate and oral history. Considers ethical and professional issues, grant writing, evaluation of popular and professional history

presentations, and careers in public history. Will involve practicum working on-site on a public history project. *Writing*.

HIS 312 17th-Century America (4-0-4).
Analysis of the European background of the Age of Discovery; comparative settlement patterns in the New World of the French, Spanish, and English; and the social, political, economic, and intellectual changes which took place in the mainland colonies to 1740. Emphasis is on family and community development. *Writing*.

HIS 313 18th-Century America (4-0-4).
Study of the American Enlightenment, the causes of the American Revolution, aspects of the War for Independence , the Confederation, and the Constitution of 1787. *Western Culture and Civilization*.

HIS 314 Introduction to American Studies (4-0-4).
Scope, theory, and methods of American Studies. American culture seen as a comparative phenomenon. Analysis of social, artistic, and political behavior in the United States and their interactions. Historical period and thematic focus may vary. *Writing*, *Western Culture and Civilization*.

HIS 315 Radicals and Reformers in 19th-Century U.S. (4-0-4). This course examines the economic, social, and political transformation of the United States in the nineteenth century. Topics typically include the rise of industrial capitalism and social and political responses such as abolitionism, sectionalism, the women's rights movement, labor activism, and Populism. *Western Culture and Civilization*, *Writing*.

HIS 316 History of the American West (4-0-4).
This course examines the significance of the Trans-Mississippi West in United States history from various interpretive perspectives. Topics include: nineteenth century exploration and settlement; impact of environment on evolution of western economies; race and ethnic relations; gender roles; the cowboy legacy; frontier violence; the West as myth and symbol; federal land and wilderness policies; the urban West; tourism and National Parks.

HIS 317 Civil War and Reconstruction, 1848 to 1877 (4-0-4). This course examines the causes, course, and consequences of the American Civil War and Reconstruction. Particular emphasis is given to slavery and sectional differences leading to the conflict; military and political events; the impact of the Civil War and Reconstruction on American society; the emancipation experiences of African-Americans; and the struggle to redefine freedom, nationalism, and citizenship during Reconstruction. *Western Culture and Civilization*, *Writing*.

HIS 319 History of U.S. Tourism (4-0-4).
This course considers the role of tourism in American society and culture from the early nineteenth to the early twenty-first century. It emphasizes how historical memory shapes tourist attractions and how tourism shapes local, regional, national, racial and ethnic identity. *Western Culture and Civilization*, *Writing*.

HIS 320 U.S. Foreign Policy Since 1898 (4-0-4).
This course covers U.S. foreign policy from the Spanish-American-Cuban-Filipino War through the Vietnam War. The greatest attention is paid to U.S. relations with European and East Asian nations through all the parts of the world including "realist" and "idealist" interpretations of U.S. foreign policy. All students are given an opportunity to conduct an independent research project of their own.

HIS 321 United States 1901 to 1939 (4-0-4).
Rise and fall of the progressive spirit at home; the impact of World War I on the world and on the American people; economic, social, political, and literary survey of the Jazz Era; the economic consolidation and social fragmentation of the 1920s; the Great Depression. *Western Culture and Civilization*.

HIS 323 Recent American History (4-0-4). Study of the major social, political, economic, and cultural events and their interactions in the United States since 1939. Major topics include World War II, the origins and impact of the Cold War, Vietnam, the civil rights movements, and other movements for social change in the 1960s. *Writing*, *Western Culture and Civilization*.

HIS 324 Black Is/Black Ain't: Defining Black America (4-0-4). Explores the ways in which Americans of African descent have been defined historically by themselves and by whites. The social and political consequences of adopting these definitions are also examined. Topics covered include representations in law and popular/elite culture; racial thought and the rise and fall of slavery/Jim Crow; and self-definitions grounded in, among others, political and class differences. Black Studies. *Human Diversity*, *African-American Experience*, *Writing*.

HIS 325 African-Americans Since 1945 (4-0-4). Beginning where **HIS 216** ends, this course deals with the Civil Rights movement; the sit-ins; the development of Black Nationalism; the urban condition; and the changes in African-American political, social, and economic life during the last 40 years. Black Studies. *Human Diversity*, *African-American Experience*.

HIS 326 African American History Through Sacred Music (4-0-4). This course traces the history of African American sacred music from its African roots, through the nineteenth century spiritual to the twentieth century hymns, gospels and contemporary Christian compositions. This musical heritage will be analyzed within the larger context of African American social and cultural history, with an emphasis on understanding African American church culture as a buffer against racial and other forms of discrimination. *Writing*, *African-American Experience*, *Human Diversity*.

HIS 327 American Sexual Politics and Communities (4-0-4). *[New title effective Spring 2008:* ***American Sexual Communities and Politics****.]*
Explores attempts by various groups to (re)define, regulate, and/or form communities around sexuality. The course's central theme differs each year. Topics include gay, lesbian, and bisexual histories and sexuality in the U.S. *Writing*, *Human Diversity*.

HIS 328 History of Business (4-0-4).
Surveys the evolution of American business and growth of capitalism in the U.S. , focusing on several themes including the evolution of the firm, business-government relations, management-labor relations, business and society interactions, and general developments in economic thought.

HIS 329 Black Resistance in the Age of Jim Crow 1896-1954 (4-0-4). African Americans challenged white supremacy long before the emergence of the modern movement for civil rights. This course studies the politics of black resistance during the era of legal segregation-from Plessy vs. Ferguson (1896) to Brown vs. Board of Education (1954). Topics will include anti-lynching, the impact of rural to urban and southern to northern migration, unionization, Garveyism, communism, the roots of black power, and the ways that African Americans confronted the rise of a racist commercial culture. *Human Diversity*, *African-American Experience*.

HIS 330 History of Greece (4-0-4).
A study of the development of civilization in ancient Greece from prehistoric beginnings until the death of Alexander the Great. Special emphasis will be given to the rise of democracy and its expression in Athens during the Age of Pericles. The nature, extent, and interpretation of ancient evidence for historical research will receive careful attention. Classical and Medieval Studies course; *Western Culture and Civilization*.

HIS 331 Rise of Rome (4-0-4).

A study of the development of civilization in ancient Italy from prehistorical beginnings until the establishment of the Roman Empire by Augustus. Special emphasis will be given to the foundation legends of the city, and the civil disorders of the final century of the Republic to Empire. The nature, extent, and interpretation of ancient evidence for historical research will receive careful attention. Classical and Medieval Studies course; *Western Culture and Civilization*.

HIS 336 Tudor and Stuart England 1450-1688 (4-0-4). The legacy of late-medieval feudal, and social disorder, the emergence of a sovereign state, the Reformation, the religious and constitutional settlements, the Wars of the Three Kingdoms, the Restoration, and the Glorious Revolution, are studied in the context of social and economic change. *Western Culture and Civilization*.

HIS 337 Britain 1688 to 1832 (4-0-4). The Glorious Revolution, the military-fiscal state, the conquest of empire, the Industrial Revolution, and the age of democratic revolutions are studied in the context of political, social and economic change. *Western Culture and Civilization*.

HIS 339 Great Britain: Empire to Welfare State (4-0-4). History of the British people since 1867, including the problems created by total war, the dissolution of empire, the coming of political democracy, the establishment of the Welfare State, industrial decline, and the search for international order. *Western Culture and Civilization*.

HIS 340 The Roman Empire (4-0-4).
The rise and decline of the Roman Empire from the age of Augustus to the end of the fifth century, including the development of Roman government, culture and society. Examines the growth of Christianity and the interaction of the later Empire with the "barbarian" nations, and their effects on the transformation of the western Empire into the late antique world and the early Middle Ages. Classical and Medieval Studies course. *Writing*, *Western Culture and Civilization*.

HIS 341 Early Middle Ages (4-0-4).
Study of the political, social, economic, and intellectual life of Europe from the Fall of Rome to A.D. 1000, with emphasis on the Germanic invasions, the rise of Christianity, feudal society, and manorialism. Classical and Medieval Studies course; *Writing*, *Western Culture and Civilization*.

HIS 342 Late Middle Ages (4-0-4).
European society and culture from 1000 to 1450, including patterns of thought, the founding of the universities, and the rise of cities and the feudal monarchies. Classical and Medieval Studies course. *Writing*, *Western Culture and Civilization*.

HIS 343 Social History of the Black Death (4-0-4).
Examination of the changes created by the introduction and spread of the Bubonic Plague in a large population. Begins with examination of how diseases are socially, culturally, and historically constructed, then charts the impact of the plague in the first three centuries of its spread. Course analyzes social history of the period and how responses to disease intersected with other European wide developments. *Writing*, *Western Culture and Civilization*.

HIS 344 The Renaissance (4-0-4).
Study of the cultural life of western Europe from the 14th through the 16th centuries in its historical setting, with emphasis on Petrarch, Machiavelli, Galileo, and Erasmus through a study of their works; and a special concentration on Italy. Classical and Medieval Studies course; *Writing*, *Western Culture and Civilization*.

HIS 345 Church, State, and Society in Reformation Europe (4-0-4). Examines lay piety and institutions of the Catholic Church during the late Middle Ages, the rise of Protestant doctrines and faiths in 16th- and 17th-century Europe; analyzes impact among various social groups, cultural manifestations of religious upheaval, religious and political ambitions, and current movements of Christian humanism and Catholic and Counter-Reformations. Covers late 15th-century until 1648. *Writing*, *Western Culture and Civilization*.

HIS 346 17th- and 18th-Century Europe (4-0-4).
Examination of Absolutism and the European state system; the social and economic system of preindustrial Europe; and the rise and decline of the principal powers, including Spain, the Low Countries, France, and Prussia. *Writing*, *Western Culture and Civilization*.

HIS 349 France and the French Revolution (4-0-4).
This course introduces students to the history of France in the 18th century and the Revolution of 1789. Examines social classes, the economy, intellectual changes, and various interpretations of the French Revolution and the debates surrounding them. Will also survey the Revolutionary and Napoleonic eras and their impact on Europe. *Writing*, *Western Culture and Civilization*.

HIS 350 Golden Age Spain (4-0-4).
This course examines the history of Spain from the late-medieval period through the 17th century from social, cultural, political, economic, and religious perspectives. Addresses key developments in Iberian peninsula including encounters with Americas, the rise of absolutism, and the Catholic and Counter-Reformations. Evaluates implications of historical interpretations of both Spain 's "Golden Age" and its reputed "decline." *Writing*, *Western Culture and Civilization*.

HIS 351 Social and Economic History of 19th-Century Europe (4-0-4). A study of economic change and social upheaval precipitated by the French Revolution and the industrialization and urbanization of Europe . Emphasis on social class structure, urban life and problems, workers' and middle-class responses to industrialization, and imperialism. *Writing*, *Western Culture and Civilization*.

HIS 352 Political History of 19th-Century Europe (4-0-4). A study of economic change and social upheaval precipitated by the French Revolution and the industrialization and urbanization of Europe . Emphasis on social class structure, urban life and problems, workers' and middle-class responses to industrialization, and imperialism. *Western Culture and Civilization*.

HIS 353 20th-Century Europe, 1914 to the Present (4-0-4).
Lecture and group discussion approach to some of the major cultural, social, political, and economic developments in Europe since 1914; social and cultural impact of two world wars; totalitarianism and the decline of empire; emphasis is placed on the Cold War and events since 1945. *Writing*, *Western Culture and Civilization*.

HIS 354 European Women's History (4-0-4).
Course will analyze variety of life experiences of European women from 1300 to 1700. Will consider methodological issues that have shaped recent practice of women's history, and will examine the variety of women's roles in late medieval and early modern society including religion, economy, culture, and politics. *Writing*, *Western Culture and Civilization*.

HIS 355 War and Society, 1500 to 1870 (4-0-4).
The impact of the military revolution and standing armies upon the changing nature of land and naval warfare studied in the context of the emergence of sovereign dynastic and national states, European expansion overseas, the breakdown of traditional societies and the emergence of mass societies in the age of democratic revolutions. *Western Culture and Civilization*.

HIS 356 History of European Fascism. (4-0-4).
Course will examine social, cultural, economic, and racial aspects of radical Right Wing politics which made the Fascist movements such pervasive phenomena in Europe between the two world wars. The bulk of the course will be devoted to the Nazi and Fascist movements in Germany and Italy and to the development of racial ideology culminating in the Holocaust. *Western Culture and Civilization*.

HIS 357 WWI: The Western Front (4-0-4).

This course focuses on the social history of the Western Front during World War I (especially Belgium, France and Britain). It aims to go beyond statistics and battle reports and allow students to become immersed in the war experience of the combatants and non-combatants by reading history, novels, poetry, viewing films and images, listening to music, and through class discussion. *Western Culture and Civilization.*

HIS 358 Science and Society (4-0-4).
Evolution of scientific thought and method and relation of these developments to other aspects of the developing Western world view, particularly religious and philosophical components to help students achieve science literacy.

HIS 359 Technology and Society (4-0-4).
Review the role of technology in the cultural evolution of humans and in our contemporary society. Develop insight into the role tools played in the evolution of hominids. Gain an appreciation of the distinction between science and technology.

HIS 360 History of Russia to 1900 (4-0-4).
Survey of political, social, economic, and cultural developments in Russia from the ninth century through the 19th century. Topics include the growth of the Russian autocratic state, evolution of institution of serfdom, position of the nobility, the emancipation of the serfs, formation of the intelligentsia, and the beginnings of the revolutionary movement. *Western Culture and Civilization*.

HIS 361 History of Modern Russia (4-0-4).
History of modern Russia and the Soviet Union, including the development of capitalism and industrialization, the revolutions of 1905 and 1917, the formation and evolution of the Soviet Union, Stalinism, the collapse of the Soviet Union, and recent developments. *Western Culture and Civilization.*

HIS 362 Modern Eastern Europe (4-0-4).
Social, political, and economic history of the peoples of Eastern Europe , excluding the former Soviet Union , from the late 18th-century to the present. Topics include nationalism, modernization, cultural diversity, significance in world history, Communism, and Eastern Europe after 1989. *Western Culture and Civilization*.

HIS 363 Russian Literature and Society (4-0-4).
This course will provide the opportunity to read some major works of Russian literature, with exploration of their social context. The course will focus on the interaction between Russian history, society and culture. Major themes of the course will include: 1) Russian society as depicted in literature (from the 1860s to the 1950s); 2) the function of literature in Russian society 3) the authors – their roles and experiences; 4) Russia and Russian literature before and after the revolution of 1917. *Western Culture and Civilization*, *Writing*.

HIS 365 Comparative Slavery (4-0-4).
Examines the slave system which developed in the U.S. within the context of the Americas with particular attention to Brazil . Uses comparative approach to enrich understanding of ourselves and our society. Topics include slave trade, nature of the slave community and family life, relationship of slavery to race, religion and human and physical geography, and escape, rebellion and other forms of rebellion. *Writing*, *African-American Experience*, *Human Diversity*.

HIS 366 Colonial Latin America (4-0-4).
Examination of Latin American societies covering pre-Columbian civilization to the Wars for Independence in the 19th century; the development of plural societies, economic organization, and culture. *Writing*, *Nonwestern Culture and Civilization*.

HIS 367 Modern Latin America (4-0-4).
Development of Latin American republics with emphasis on the 20th century; development of political and cultural nationalism, polarized societies, dependent economic systems, mechanisms of change, and relations with the U.S. *Writing*, *Nonwestern Culture and Civilization*.

HIS 369 Comparative Emancipation (4-0-4).
This course examines the process of emancipation in the Western Hemisphere and the experiences of former slaves during the transition to free labor. It focuses on the struggle of ex-slaves and ex-slaveholders to define freedom and on the changing ideas about race, racism and class. The United States emphasis within the broader hemispheric context will compare such topics as; self-emancipation, labor policies, and politics in the years after slavery. *Writing*, *African-American Experience*, *Human Diversity*.

HIS 370 World History (4-0-4).
A general introduction to the study of global history focusing on the evolution of those factors such as immigration, disease, nationalism, religion, and the economic and political systems which have served to connect societies. The geographic and/or thematic focus may vary from term to term. Primarily aimed at students interested in social studies teaching.

HIS 371 History of Japan (4-0-4).
A survey of political, economic, social, cultural, religious and intellectual life in Japan from the third century to the present day. Emphasis on the origin and development of traditional Japanese civilization before the impact of the modern West and the subsequent Japanese quest for international acceptance. Asian Studies course; *Nonwestern Culture and Civilization*.

HIS 372 Early Modern Japan (4-0-4).
A consideration of historical change during the Tokugawa Period (1600-1868) in Japanese history, an era considered both "late traditional" and "early modern." Examines the processes of urbanization and the growth of a monetary economy, changes in social organization, major cultural innovations, intellectual movements, and the emergence of a sense of national identity. Asian Studies course; *Nonwestern Culture and Civilization*.

HIS 373 Contemporary Japan in Historical Perspective (4-0-4). Assesses aspects of contemporary Japanese civilization and culture from the perspective of historical influences on the philosophies, institutions, and values of modern society and culture. Asian Studies course; *Nonwestern Culture and Civilization*.

HIS 374 Revolutionary Movements in Modern China (4-0-4). Chronologically arranged consideration of topics in the political, economic, social, cultural, religious, and intellectual life of China since the late 19th century; designed to provide an understanding of contemporary China in historical perspective. Asian Studies course; *Nonwestern Culture and Civilization.*

HIS 375 Pre-Colonial Africa to 1800 (4-0-4).
Survey of sub-Saharan African civilizations and the origins of the African Diaspora. Geographic coverage includes Nile Valley, eastern Africa and the Horn of Africa, southern and West Africa, and the central African rain forest. Includes historical analysis of Nubia , Ethiopia , the Swahili, Zimbabwe , Ghana , Mali , Songhay , Ashanti , Benin , and the Kongo. The Atlantic slave trade is positioned within historical traditions of African and global history. Black Studies; *Nonwestern Culture and Civilization.*

HIS 376 Modern Africa Since 1800 (4-0-4).
Survey of sub-Saharan African civilizations from the demise of the Atlantic slave trade through the periods of European conquest and colonial rule, the nationalist struggle for independence, and postcolonial African states. Includes African perspectives on colonialism and neocolonialism, including social, economic, political, and cultural initiatives toward independence, modernity and an emerging role in global affairs. Black Studies; *Nonwestern Culture and Civilization.*

HIS 377 History of Islamic Civilizations (4-0-4).

A survey of the main themes of the development of religious, cultural, social, and political patterns in central Islamic areas from the seventh century A.D. to the present. Particular emphasis on development and spread of Islam, interactions with the West, and problems of modernization. Classical and Medieval Studies course. *Writing*, *Nonwestern Culture and Civilization*.

HIS 379 Collective Survival in the African Diaspora (4-0-4). Course considers the recent history, 1400 to the present, of the African Diaspora in the global community, with an emphasis on the social and cultural histories of African-descended peoples in the Americas. Students will examine recent scholarship on the African Diaspora and conduct their own research, using oral history interviews, archival materials, and other sources. *Writing*.

HIS 382 Origins and Consequences of Total War (4-0-4).
Examination of the diplomatic history of the period 1870-1945 within the larger framework of European international relations surrounding the first and second world wars; special consideration is devoted to the role of domestic pressures in the formulation of foreign policy and the historical debates about the origins of both world wars. *Writing*, *Western Culture and Civilization*.

HIS 386 History of the Middle East to 1798 (4-0-4). This course examines the historical roots of the Middle East, from the earliest recorded information about its ancient civilizations to the dawn of the modern era, concluding with Napoleon's conquest of Egypt in 1798. In between, we will learn about the historical and cultural foundations established by the pre-Islamic empires and monotheistic faiths, the coming of Islam and the Islamic conquests, the heights of Middle Eastern civilization, the Crusades and Mongol conquests, the Gunpowder Empires, and the Ottoman Middle East. Although this is an upper-division class, no previous background knowledge of Middle East history is necessary. *Nonwestern Culture and Civilization*; *Writing (both effective Spring 2007)*.

HIS 387 Modern Middle East (4-0-4).
This class examines the most important factors that influenced the development of the modern Middle East between the 18th through the 21st centuries. Subjects include colonial empires in the Middle East, the impact of Westernization and modernity, the establishment of nation states, the Israeli-Palestinian conflict, the Iranian revolution, Cold War politics, influence of oil, political Islam and terrorism, America's involvement, and the Middle East post 9/11. Although this is an upper-division class, no previous background knowledge of Middle East history is necessary. *Writing*, *Nonwestern Culture and Civilization*.

HIS 390 Introduction to Social Studies (4-0-4).
By focusing on issues of content, instead of pedagogy, the course prepares undergraduates to be social studies teachers by exposing them to a broad interdisciplinary perspective on the methods, approaches, skills, and content of the social sciences and History.

HIS 393 Special Topics in History (4-0-4).
Analysis of crucial problems in history; topic will vary from semester to semester depending on the instructor. Course may be taken for credit more than once, but no single topic may be repeated. Topics will appear in semester course schedule.

HIS 400 Local History Seminar (4-0-4).
The course explores the social, economic, political, and cultural history of Cleveland and northeastern Ohio from 1800 to the present. It uses primary materials to generate student research projects on a variety of selected topics. Specific topics vary from term to term.

HIS 401 History Seminar (4-0-4).
This course guides students through the production of a major research paper that is synthesized, critical analysis of primary and secondary sources. Field and period to vary by instructor; course may be taken for credit more than once, but no single field and period may be repeated. *Effective Spring 2008.*

HIS 497 Readings in History (1 to 4 credits).
Prerequisites: Written permission of instructor and chair. Tutorial or seminar work in special areas and subjects not part of the department's regular course offerings; arranged with an instructor on an individual or group basis for 1 to 4 credit hours. May be repeated for credit in a different subject area. History majors may not exceed a total of 8 hours in this course.

HIS 499 Internship (1 to 4 credits).
Prerequisite: Written permission of internship coordinator. Interns work with experienced practitioners to develop public exhibits and research collections, design and guide public tours, or undertake other history-related projects. Interns gain invaluable career insights by learning how organizations research, collect, preserve, and interpret history in public settings.

Honors Program Courses

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Faculty

Honors Program Director: Barbara Haas Margolius (Mathematics).

Honors faculty are loaned from their home departments each term. For Academic Year 2007-08, the following faculty will be teaching general education honors courses or the universal honors experience: Peter Bubenik (Mathematics), Gregory D'Allesio (Music), Lynn Deering (HPERD), Petru Fodor (Physics), Sheldon Gelman (Cleveland Marshall College of Law), Valentin Gogonea (Chemistry), Leah Gold (Mathematics), Elizabeth Lehfeldt (History), Katheryn Maguire (Communication), Lee Makela (History), Mark Rosentraub (Dean, Levin College of Urban Affairs), Robert Scherer (Dean, Nance College College of Business Administration), Brian Scott (Mathematics), Adam Sonstegard (English), Kiril Streletzky (Physics), Cathy Thomas (Art), Robert Wheeler (History), Brian Yusko (Curriculum and Foundations, College of Education and Human Services), Eric Ziolek (Music). In addition, a visiting Fulbright Scholar is scheduled to teach for the Program during the Spring 2008 term. **Additional faculty are involved in the Honors Experience in the major.**

Course Descriptions

HON 101 Introduction to Honors (1-0-1).
Prerequisite: Honors standing or permission of university Honors Program. An orientation course for first-year honors students. Introduces students to campus life including the range of events and services offered on campus and the philosophy, policies and procedures of the university; serves as a forum in which students can ask questions and share experiences with fellow students, faculty, advisers, and mentors; and provides the honors students with a common experience and sense of community. *Freshman Orientation*.

HON 200 Universal Honors Experience (0-0-1).
Prerequisite: Honors standing or permission of university Honors Program. The Universal Honors Experience is one of three alternatives required of all students in the Honors Program each semester except first-semester freshman year. The content of the Universal Honors Experience will vary considerably from term to term. Alternatives include: a supper/lunch club to meet twice a month to be coordinated by a faculty member who will invite speakers to each meeting; a performance/seminar club for which students will attend 5 to 10 plays and or seminars with subsequent discussion sessions; students may also propose a topic for a universal honors experience following guidelines in the Honors Student Handbook.

HON 201 Universal Honors Course (1-0-1).
Prerequisite: Honors standing or permission of university Honors Program. The Universal Honors Course is one of three alternatives required of all students in the Honors Program each semester except first-semester freshman year. The content of the Universal Honors Course will vary considerably from term to term. Each term, students will meet about once per week to attend events on campus or in the larger community including plays, musical performances, lectures and colloquia. About half of the class sessions will be filled by campus and off-campus events that are available also to the larger campus community. The other sessions will be related to a larger interdisciplinary theme.

HON 301 The Experiences of African-American Students in Urban Educational Settings (2-1-2). Prerequisite: Honors standing or permission of university Honors Program. Students in this course will study the African-American experience in urban settings. They will work in small groups in a racially diverse Cleveland public school for one hour per week in addition to several class sessions that will be held at the school to develop enrichment experiences. Through firsthand experience with Cleveland students as well as interdisciplinary readings, students will examine the extent to which schools provide culturally relevant curriculum and instruction for diverse students. Students will learn about possibilities as well as shortcomings and biases of existing assessment strategies, particularly high-stakes standardized state tests. Through personal interactions with CMSD students, CSU students will reflect on their feelings about race and their ability to respond to diverse students in a culturally sensitive manner. *African-American Experience.*

See also these discipline-specific honors courses: **ART 253H**, **BIO 104H**, **BIO 105H**, **CHE 494H**, **CHE 495H**, **CHE 496H**, **CHE 499H**, **CHM 379H**, **CHM 479H**, **CHM 497H**, **DAN 212H**, **ECN 230H**, **EEC 391H**, **EEC 491H**, **EEC 495H**, **EEC 499H**, **ENG 102H**, **ENG 207H**, **HIS 201H**, **HIS 272H**, **HSC 438H**, **HSC 439H**, **IME 495H**, **MCE 391H**, **MCE 491H**, **MCE 495H**, **MCE 499H**, **MTH 181H**, **MTH 182H**, **MTH 493H**, **MTH 496H**, **MUS 260H**, **MUS 261H**, **PHL 213H**, **PHL 242H**, **PHL 246H**, **PHL 489H**, **PHY 243H**, **PHY 244H**, **PSY 495H**, **PSY 497H**, **SOC 280H**, **UST 422H**.

Industrial and Manufacturing Engineering Courses

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Faculty

Professors: L. Kenneth Keys, Theodore J. Sheskin; **Associate Professors:** Taysir H. Nayfeh, Joseph A. Svestka (Chairperson). **Assistant Professors:** (Michael) Brian Thomas, Nancy L. Grugle; **Professors Emeriti:** Chittaranjan Jain, Louis A. Tuzi.

Course Descriptions

IME 101 Introduction to CAD (0-3-1).
Prerequisite: Permission of instructor. Fundamentals of engineering drafting by way of computer aided drawing (CAD) software. Basic features and capabilities of CAD software and drafting fundamentals including orthographic projection, and isometric pictorials, part dimensioning in 2 dimensional drawings, with an introduction to 3 dimensional drawings, are studied through a series of tutorials and drawing exercises.

IME 250 Material Processing and Metrology (3-0-3). Prerequisite: **ESC 270**. A manufacturing engineering course emphasizing the fabrication of materials from the processing and equipment viewpoint. This course presents a broad study of the many manufacturing processes utilized in the production of a wide variety of products and components.

IME 251 Material Processing and Metrology Laboratory (0-3-1). Must be taken concurrently with **IME 250**. Application of the manufacturing process to the transformation of parts. Use of simple production equipment to production of simple parts.

IME 304 Work Measurements and Methods (3-0-3). Prerequisites: **ESC 310**. The analysis measurement and design of efficient work, work place, and procedures using motion economy principles, time-study, work sampling, predetermined time systems, and other work measurement techniques.

IME 305 Work Measurements and Methods Laboratory (0-3-1). Must be taken concurrently with **IME 304**. Application of work measurement techniques, presented in **IME 304**, to real-world problems.

IME 320 Engineering Experimental Design (3-0-3). Prerequisite: **ESC 310** or equivalent. Practical application of statistical methods to engineering experimental design. Topics include fundamentals of experimental design, two-level multivariable experiments, multilevel multivariable experiments (ANOVA), validation testing methods, and estimation of variance.

IME 330 Operations Research I (3-0-3). Prerequisite: **MTH 284** or permission of instructor. Formulation, analysis, interpretation, and computer implementation of deterministic optimization model in engineering, including linear programming, transportation, assignment, and network models.

IME 331 Operations Research II (3-0-3). Prerequisite: **IME 330** or permission of instructor. Formulation, analysis, and interpretation of probabilistic models including stochastic processes, and Markovian and queuing models.

IME 405 Human Factors Engineering (3-0-3).
Prerequisites: none. Survey of human factors engineering emphasizing the systems approach to workplace and machine design. Discussion of basic human factors research and design methods, selection of statistical techniques for application to human factors data, visual and auditory processes, display and control design, and effects of environmental stressors on humans.

IME 410 Statistical Quality Control (3-0-3). Prerequisite: **IME 320** or equivalent. Statistical aspects of quality control including acceptance sampling plans, control chart methods for attribute and variables, adaptive quality control, and basic reliability concepts.

IME 440 Quality Systems Design (3-0-3). Prerequisite: **IME 320** or equivalent. Philosophies and structures of a generic quality system are introduced. Also examines the backgrounds of various industrial quality assurance systems, such as ISO 9000, CIS 9000, and Ford 01. A comprehensive examination of ISO 9000 is included, along with various implementation issues.

IME 447 Applications of Programmable Logic Controllers (4-0-4). Prerequisites; Calculus concepts, circuit analysis, and a high level programming language. A practical course emphasizing the use of PLC's in a wide range of industrial settings. Topics include ladder logic concepts, data manipulation, timing, discrete and analog I/0 network configurations, sequencers, and shift registers.

IME 450 Industrial Automation (3-0-3).
Broad introduction and analysis of the basic building blocks of modern automated manufacturing and quality inspection systems. Topics covered include sensors, actuators, machine vision, programmable logic controllers, and PC-based data acquisition and control. Cross-listed with **IME 550**.

IME 451 Industrial Automation Laboratory (0-3-1). Must be taken concurrently with **IME 450**. Application of sensors and control interfaces for manufacturing systems. Design setup, implementation, gathering, and analysis of collected data on real process control. Cross-listed with **IME 551**.

IME 465 Manufacturing Systems Engineering (3-0-3). Prerequisite: **IME 477**. Principles and analysis of manufacturing systems; transfer machines, machining centers, flow line systems, and group technology systems; robotics and integrated manufacturing systems; computer-aided programming; robotics applications.

IME 470 Production Planning and Control (3-0-3). Prerequisites: **IME 331** and senior standing or permission of instructor. Principles of demand forecasting, production planning and control, master production scheduling, job sequencing, classical inventory control, Materials Resource Planning, and Just-In-Time.

IME 471 Operational Level Scheduling (3-0-3).
Prerequisite: Senior standing or permission of instructor. Sequencing and scheduling definitions, concepts and scheduling methods most often used in practice. Includes the study of scheduling objectives and performance measures; Gantt charts; resource constraints; and the scheduling of flow shops, job shops, and personnel staffing. Scheduling software is used for instruction,

homework and student projects.

IME 474 Expert Systems for Engineers (3-0-3).
Prerequisite: Senior standing or permission of instructor. Study of Expert Systems with particular application to engineering problems. The study of the concepts, theory and development of Expert Systems, knowledge bases and the PROLOG computer language. Includes a project in which students develop a rule based Expert System in the PROLOG language.

IME 475 Systems Simulation (3-0-3). Prerequisite: **IME 331**. The application of discrete event computer simulation to analyze manufacturing and service problems. Use of commercial computer simulation software to program and solve problems.

IME 476 Law for Engineers (3-0-3).
Prerequisite: Senior standing. The engineer's relations with the law, the public, and the ethics of the profession. Includes contracts, property rights, patents, copyrights, and engineering specifications.

IME 477 Facility Planning (3-0-3). Prerequisite: **ESC 282** or permission of instructor. Analysis and synthesis of production and service facilities and systems with focus on system requirements, flow analysis, activity analysis, and the integration of appropriate material handling systems. Evaluation of facility designs using qualitative, economic, functional performance measures, and computer-based analytical and design tools.

IME 478 Facility Planning Laboratory (0-3-1). Prerequisite: **IME 101** or permission of instructor. Must be taken concurrent with **IME 477**. Application of material taught in IME 477, including AutoCAD and visFactory software for the planning, drawing and design of manufacturing and service facilities.

IME 480 Engineering Design (1-3-3).
Prerequisite: Industrial Engineering major scheduled to graduate at the end of the next semester in attendance. Integration of Industrial Engineering methods and analytical techniques into a design project. *Writing*.

IME 481 Senior Design (1-3-2). Prerequisite: **IME 480**. Completion and presentation of design project started in **IME 480**. *Writing*.

IME 495H Honors Research (3 credits).
Prerequisites: junior or senior standing, and approval of student's honors adviser. Topics of importance in Industrial Engineering.

IME 496 Directed Studies in Industrial Engineering (one to three credits). Prerequisite: Permission of Instructor. A directed or independent study of an individual problem or subject under the supervision of a faculty member. Students must register for this course in the IME Department for assignment of a section number. Students must furnish a title for the directed or independent study at the time of registration.

IME 497 Internship in Industrial Engineering (3 credits).

IME 498 Internship in Manufacturing Engineering (3 credits).

IME 499 Special Topics (3 credits).

Information Systems Courses

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Faculty

Professors:
Alan Benander, Barbara A. Benander, Adam M.A. Fadlalla, Paul J. Jalics, Chien-Hua (Mike) Lin, Santosh K. Misra (Chairman), Toshinori Munakata; **Associate Professors:**
Timothy J. Arndt, Ben A. Blake, Donald G. Golden, Victor M. Matos, David R. McIntyre, Howard Paul, Michael A. Pechura, Janche Sang; **Assistant Professors:** Iftikhar Sikder; **Term Assistant Professor:** Jackie Woldering; **Term Instructors:** Stephen Adams, David Antolovich, Dennis Smolinski.

Course Descriptions

Note: see also **CIS courses**

IST 203 Software Tools for Personal Productivity (3-0-3) Prerequisites: None. Students with minimal computer skills will learn to enhance their personal productivity and problem solving skills by applying information technologies to problem situations. In this course, students acquire skills as knowledge workers through effective and efficient use of packaged software. Emphasis is on learning features of a suite of software including Windows operating environment, word processing, spreadsheets, presentation graphics, simple database operations, electronic mail, and the strategic use of the Internet.

IST 211 Fundamentals of Systems Development (3-0-3) Prerequisite: **IST 203**. Introduces the fundamental concepts of structured and object-oriented programming. Emphasis on small systems that knowledge worker may develop to enhance personal productivity. Introduces corporate databases and their use in small systems. Topics include event driven programming using Visual Basic, .NET, classes and objects, graphical user interfaces, data types, control structures, functions and subroutines, arrays, files, and the mechanics of running, testing and debugging programs.

IST 221 Information Systems in the Organization (3-0-3) Prerequisite: **IST 203**; co-requisite: **OMS 201**. Examines the role of Information technology in organizations from the perspective of the IT professional. Capabilities of current and emerging technologies are considered for their functional contributions to organizational effectiveness. In addition, business processes supported by IT are examined. Topics include hardware, software, networks, databases, system design, e-business, supply chain, global information systems, and ethical issues related to the use of information.

IST 305 Information Technology for Competitive Advantage (3-0-3) Prerequisite: **IST 203**. Examines the role of Information Technology in organizations from the perspective of non-IT business people. Concept of information, its role in the organization, and systems for functional and cross-functional support are examined. Strategic uses of information systems including decision support, e-business and supply chain are explored. Requirements for effective IT implementation and the crucial role of users in system development are studied. Also considered are the uses of databases and data warehouses. *May not be used to satisfy B.B.A.-IS major-field requirements.*

IST 311 Systems Development for the Organization (3-0-3) Prerequisites: **IST 211**, **IST 221**. Continuation of **IST 211**. Prepares students to design, implement, deploy, and maintain superior software solutions based on the VB.Net platform. Topics include the study of the .Net development environment, design and use of classes and other aspects of object-oriented systems, basics of design methodologies, logical and physical data definitions of basic and complex data types, design and implementation of algorithms, design and use of files, and program correctness issues.

IST 321 Systems Analysis Methods (4-0-4) Prerequisites: **IST 211**, **IST 221**. Presents basic systems principles and concepts; logical analysis, design, and modeling of information systems with emphasis on object-oriented methodologies; life cycle phases; use of the Unified Modeling Language, the Rational Unified Process, and Class-Responsibility-Collaboration (CRC) cards. A CASE tool is used to implement system features such as use cases, use case diagrams, class diagrams, sequence diagrams, collaboration diagrams, and state diagrams.

IST 331 Design and Implementation of DBMS (4-0-4) Prerequisite: **IST 311**. Students learn to develop a physical database based on a logical data model within the context of a commercial DBMS. Topics include conceptual, logical, and physical data models and modeling tools; structured and object design approaches; models for databases: relational and object oriented; design tools; data dictionaries, repositories, database implementation including user interface, data retrieval and maintenance, and reports; mastery of Structured-Query-Language (SQL) for retrieval, maintenance and administration; multi-tier planning and implementation; data conversion and post implementation review. Students construct physical database solutions using the .Net platform.

IST 341 Networks and Telecommunications (3-2-4) Prerequisite: **IST 311**. Basic knowledge of data communications and networking requirements, including appropriate technologies. Emphasis on analysis and design of networking applications in organizations. Management of telecommunications networks, cost-benefit analysis, and evaluation of connectivity options are also covered. Students learn to evaluate, select, and implement different communications options within an organization. Topics include telecommunication devices, media, systems; network hardware and software: network configurations; network applications; acquisition of network resources; distributed vs. centralized systems; architectures, topologies and protocols; installation and operations of bridges, routers and gateways; network administration; performance analysis; privacy, security, reliability; Installation and configuration of LAN and WAN; Internet and intranet.

IST 410 Object-oriented Programming for Information Systems (4-0-4) Prerequisite: **IST 311**. Advanced study of object-oriented methodologies and programming using the Java and the C# programming languages. Language syntax, error handling, object creation/destruction and memory allocation strategies are explored. Java GUI components, event handling and Web-based programming are introduced.

IST 420 Project Management for Information Systems (3-0-3) Prerequisite: **IST 321**. Focuses on models used in a software development project, including tools that improve project productivity. Topics include concepts of project management, task scheduling, cost estimation models, risk assessment and software maturity framework. Students use tools such as PERT/CPM and cases to gain

depth in software project management principles and practice.

IST 430 Knowledge Management (3-0-3) Prerequisite: **IST 221** or **IST 305**. Introduces theconcept of Knowledge Management and the systems that enable people to acquire, store, distribute and process knowledge. Define what knowledge is and the types of knowledge that exist. Understand how systems thinking is integral to understanding and managing knowledge. Other topics discussed include economic issues, acquiring, storing, distributing, and processing knowledge.

IST 450 Web-Based Programming (3-0-3) Prerequisite: **IST 331**. Course prepares students with skills for designing, programming, and publishing Web sites, as well as developing applications on the Web. Web-based applications are developed with emphasis on accessing database servers. Web site design concepts and tools are introduced including HTML, XML, Cascading Style Sheets, Active Server Pages, JavaScript, VBScript, and Web Services.

IST 461 Electronic Business (3-0-3) Prerequisite: **IST 221** or **IST 305**. Electronic business is one of fastest growing business segments in today's environment. Course examines issues associated with electronic businesses and the Internet. Topics include business models and their sustainability, technology requirements, security, payment systems, e-Government and strategic issues.

IST 465 Enterprise Integration Systems (3-0-3)
Prerequisites: Completion of all 200- and 300- level courses from the common body of knowledge, completion of the IST core, senior standing. Examines issues associated with enterprise systems, integrated and best of breeds. Examines impact of such systems on organizations and decision making issues. Topics include business processes, role of enterprise systems with relation to business processes, business process reorganization, acquisition and success issues associated with enterprise system implementation. Students get hands on experience in using SAP by creating a virtual enterprise of their own.

IST 490 Professional Internship (1-0-1).
Prerequisites: Junior standing and permission of a CIS Department faculty adviser. Work experience in a professional environment. The work performed must extend the academic curriculum and provide a meaningful learning experience in the student's area of interest. Term paper required. This course may only be taken *once*.

IST 493 Special Topics in Information Systems (1 to 4 credits). Prerequisite: Senior standing and permission of iInstructor and department chair. Explores current issues or special topics in information systems. Topics and course requirements will be announced by the department.

IST 496 Independent Study (1 to 4 credits).
Prerequisites: Senior standing; approval of faculty adviser and department chair. Enables qualified students to do independent work or investigate special areas of interest in information systems. Written proposal must be approved by a faculty adviser and CIS department chair; a written report must be submitted to faculty adviser.

IST 499 Honors Thesis in Information Systems (3 credits). Prerequisite: Restricted to senior IST honors students. Requires the honors student to conduct a piece of original research in information systems under the supervision of an IST faculty member. The thesis will be presented orally and submitted as a written report.

International Business Courses

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Faculty

Professors:
Tim R.V. Davis, Jayne Fuglister, Andrew Gross, Rajshekhar Javalgi, Ravi Kamath, Santosh Misra, Robert Scherer, Thomas Whipple;
Associate Professors: Oya Tukel, Ivan R. Vernon

Course Descriptions

INB 301 Introduction to International Business (4-0-4). Introduces concepts, theories, information, and issues that impact business strategies in global markets. Investigates the role of international institutions and the cultural, economic, legal, and geopolitical influences on world trade. Examines the nature of business decisions across such functional areas as human resources management, finance and accounting, marketing, and operations management. Cross-listed with **MKT 321**.

INB 490 International Business Internship (1 to 4 credits). Prerequisites: **MKT 321** and one INB core elective. Specially arranged field experience in the U.S. or abroad, providing intensive exposure to international business environment, practices, customs, and languages. For internship abroad, appropriate language proficiency is required. Domestic internship must be in an organization which is heavily involved in international business. Written proposal needs to be approved by faculty adviser and IB Program adviser before registration. A written term paper will be required. Contact the IB adviser for current information.

INB 491 International Study Tour (1 to 4 credits).
Prerequisite: Permission of IB adviser. A specially arranged study tour of a target country or region. Students will be exposed to the target country's business environment, culture, and language. Selection of the target country or region may vary each year. A written report will be required. Contact the IB adviser for current information.

INB 492 International Business Study Abroad (1 to 4 credits). Prerequisite: Permission of IB adviser. International business students may register in approved classes at international partner universities. The credit hours earned at the partnering university may be transferred as credits earned under INB 492. Contact the IB adviser for current information on approved programs and courses.

INB 493 Special Topics in International Business (1 to 4 credits). Prerequisite: Senior standing and permission of instructor and INB program director. Explores current issues or special topics in international business. Topics and course requirements will be announced by the International Business program director.

INB 496 Independent Study (1 to 4 credits). Prerequisite: Senior standing. A flexible content course designed to enable qualified students to pursue special areas of interest in international business. Written proposal needs to be approved by faculty adviser and IB Program adviser before registration. Written report is required.

INB 499 Honors Thesis in International Business (3 to 4 credits). Prerequisite: Restricted to senior International Business honors students. Requires the honors student to conduct a piece of original research in international business under the supervision of an International Business faculty member. The thesis will be presented orally and submitted as a written report.

Arts & Sciences Introduction to University Life Courses

Course Descriptions

ASC 101 Introduction to University Life (1-0-1). An orientation course intended for entering freshmen. *Freshman Orientation*.

Italian Courses

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- **Course Descriptions**
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Faculty

Associate Professor: Philippa Brown Yin (Chairperson).

Course Descriptions

Students with native experience in Italian may not enroll for credit in 100-level courses in Italian.

ITN 101-102 Italian I, II (4-2-5).
Prerequisites: ITN 101: None; ITN 102: Completion of ITN 101 with a C or better or permission of instructor. Essentials of Italian usage; practice in hearing, speaking, reading, writing. Lab fee.

ITN 201 Culture and Civilization (4-0-4). Prerequisite: **ITN 102** with a C or better or permission of instructor or equivalent. Readings explore Italian customs, attitudes, history and values in comparison with the U.S. Ongoing review and expansion of Italian skills development.

ITN 210 Intermediate Italian (4-0-4). Prerequisite: **ITN 102**
with a C or better or permission of instructor or equivalent. Practice in hearing, speaking, reading, and writing based on selections from contemporary, informal Italian materials.

Japanese Courses

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Faculty

Associate Professor : Philippa Brown Yin (Chairperson).

Course Descriptions

Students with native experience of Japanese may not enroll for credit in 100-level courses in Japanese.

All students with training or experience in Japanese other than a previous course in that language at Cleveland State must consult a counselor in the Department of Modern Languages for assistance in deciding where to enter the Japanese sequence. Failure to seek counseling may result in schedule shifts during the first week of class.

JPN 101, 102 Japanese I, II (4-2-5).
Prerequisite: JPN 101: None; JPN 102: Completion of JPN 101 with a "C" or better or permission of instructor. Essentials of Japanese usage; practice in hearing, speaking, reading, and writing. Lab fee.

JPN 193, 293 , 393, 493 Special Topics in Japanese (1 to 4 credits). Prerequisite: Permission of instructor. Study of a particular topic in Japanese language, literature, or civilization. May be repeated with a change in topic.

JPN 201 Intermediate Japanese Conversation (4-0-4). Prerequisite: **JPN 102** or equivalent. Practice in hearing, speaking, and writing based on selections from contemporary, informal Japanese materials.

JPN 202 Intermediate Japanese Language and Culture (4-0-4). Prerequisite: **JPN 102** or equivalent. Readings explore Japanese customs, attitudes, history and values in comparison with the U.S. Ongoing review and expansion of Japanese skills development.

Latin Courses

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Faculty

Professors: Edward R. Haymes; **Associate Professor:** Philippa Brown Yin (Chairperson).

Course Descriptions

Courses in linguistics, literature, and civilization having no prerequisites are listed under **French**, **German**, **Modern Languages**, and **Spanish**.

LAT 101 - 102 Latin I, II (4-0-4).
Prerequisite LAT 101: none; Prerequisite LAT 102: LAT 101 with a grade of C or better or permission of the instructor. Introduction to Latin with emphasis on reading skills; based on classical and medieval texts. Classical and Medieval Studies course.

LAT 111 - 112; 113 - 114 Latin FLEX IA-B; IIA-B (0-3-2).
Prerequisites: LAT 111: None. LAT 112 through 114: a grade of C or better in the preceding level; or permission of the instructor. The first-year Latin sequence offered in a modular Directed Studies format. The course content is the same as that of **LAT 101** - **102**, but students in LAT 111- 114 are not required to attend classes. Scheduled tutorial sessions are required. Students may normally register for up to two courses in a given semester. Classical and Medieval Studies course.

LAT 193 - 293 - 393 - 493 Special Topics in Latin Literature (1 to 4 credits). Prerequisite: Two years of college Latin or equivalent or permission of the instructor. Readings and research dealing with topics in Roman literature, culture, and history. May be repeated for credit with change in topic. Classical and Medieval Studies course.

LAT 196 - 296 - 396 - 496 Independent Study in Latin (1 to 4 credits). Prerequisites: Student must have sophomore, junior, or senior standing. Proposed projects must be approved by a full-time department faculty member, who will serve as the project adviser, and the department chair. Student-initiated supervised projects involving Latin language or literature, such as in-depth study of a particular writer, or special readings in linguistics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between student and instructor. Project's title will appear on student's transcript. May be repeated for credit with change of topic. Classical and Medieval Studies course.

LAT 200 /300 Latin Bridge (1 to 2 credits). Prerequisite for LAT 200: Completion of **LAT 102** or **114** with a grade of C or better, or permission of the instructor; for LAT 300, completion of **LAT 201** or **202** with a grade of C or better, or permission of the instructor. The course provides an informal "bridge" over the summer term between the first-year and the second-year Latin sequences (LAT 200), and between the second year and upper-level Latin courses (LAT 300). Through reading and translation of selections from classical and/or medieval Latin literature, it provides students who have completed the first-year or the second-year course with an opportunity to maintain their Latin skills over the summer, and to enhance their reading skills. LAT 200 and LAT 300 will normally be offered together. Classical and Medieval Studies course.

LAT 201 Culture and Civilization (4-0-4). Prerequisite: Completion of **LAT 102** or **LAT 114** with a grade of C or better; or permission of the instructor. An introduction to some aspects of Latin culture and civilization through close reading and analysis of significant works of classical Latin prose; specifically the "Cupid and Psyche" story from Apuleius' "The Golden Ass." Other readings, including texts on English on Latin culture, will be assigned as appropriate. A secondary goal is to build upon the skills gained in first year Latin through grammatical topics appropriate to the intermediate course. Classical and Medieval Studies course; *Arts and Humanities*.

LAT 202 Vergil (4-0-4). Prerequisite: **LAT 201**
or permission of the instructor. Study of selections from the Eclogues, Georgics and the Aeneid in their historical and literary contexts; rules of scansion and prosody; literary criticism and research. Classical and Medieval Studies course; *Arts and Humanities*.

Linguistics Courses

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Faculty

Professors: John A.C. Greppin, Edward R. Haymes, Nicholas J. Moutafakis, Jane Zaharias; **Professors Emeriti**: Earl R. Anderson, Bruce A. Beatie, William S. Chisholm, Laura Martin, Art Schwartz; **Associate Professors:** Barbara Hoffman, Ted Lardner, Antonio Medina-Rivera; **Assistant Professors:** Gabriella Olivares-Cuhat, Ahmee Shah; **Coordinator of ESL:** Maria Angelova.

Course Descriptions

Linguistics, available as a major (33 credits) and a minor (18 credits), is based on courses in Anthropology, Education, English, Modern Languages, Philosophy, and Speech and Hearing. For details about the program, contact the Interdisciplinary Programs office, Rhodes Tower 1644, (216) 687-3914.

LIN 120 Introduction to Language and Linguistics (4-0-4). This course provides an introduction to the properties of human languages and to their systematic study in the field of linguistics. It provides the groundwork for future studies of language and communication in a broad range of disciplines: linguistics, modern languages, ESL, communication, sociolinguistics, and anthropological linguistics. It is assumed that students have had no prior course work or exposure to linguistics and will begin with the basic assumptions that are shared by those who study language from a variety of perspectives. Cross-listed with **ANT 120**. *Social Science*.

LIN 260 Language, Culture and Society (4-0-4).
Overview of the study of language in its cultural and social contexts. Topics may include the formation and maintenance of speech communities, variation of language within and across speech communities, how languages change in contemporary social contexts, the range of uses of language in social context, the verbal arts, oral folklore, and the development of writing systems. This course does not presume a background in either linguistics or anthropology. Cross-listed with **ANT 260**. *Social Science*.

LIN 293 Topics in Linguistics (4-0-4).
Topics reflect material of special or timely interest, such as languages of the city, languages of Africa, effects of globalization on linguistic diversity, cognitive semantics. May be repeated up to 12 credit hours when topics vary.

LIN 310 Traditional Grammar (2 or 4 credits).
Survey of traditional grammar, its history and present use in the schools. Cross-listed with **ENG 310**.

LIN 311 Elements of Linguistics (4-0-4).
Survey of phonology, morphology, syntax, semantics, pragmatics, and psycholinguistics with reference to modern English. Cross-listed with **ENG 311**.

LIN 313 Studies in Linguistics (2 to 4 credits).
Core course in a mainstream linguistic topic, such as American English dialects, historical linguistics, history of the English language, semantics, or socio-linguistics. May be repeated with change of topic. Cross-listed with **ENG 313**, with **ANT 344** Sociolinguistics, and with courses in other departments as appropriate.

LIN 314 Applied Linguistics (2 to 4 credits).
Course in the professional application of linguistics, such as language diversity and teaching English, Lexicography, or English as a Second Language. May be repeated with change of topic. Cross-listed with **ENG 314**.

LIN 315 Introduction to the English Language (4-0-4). An overview of the main components of a linguistic description of English and of the history of the language with an introduction to some relevant areas of applied linguistics: language acquisition; regional and social dialects**;** socio-linguistics; and pragmatics. Cross-listed with **ENG 315**.

LIN 318 Language Analysis (2 to 4 credits).
Prerequisite: Introductory linguistics course or strong background in a foreign language. Topics may include Sanskrit, Hittite, Classical Armenian, Old English, Old Norse, or Gothic, studied with an emphasis on grammar and linguistic issues. May be repeated as the continuing study of one language, or with a change of topic. A two-semester sequence of one language (such as Sanskrit I and II), or a semester of Old English followed by a semester of Old Norse or Gothic, may satisfy the Arts and Sciences foreign-language requirement. Students who take Sanskrit I and II (4 credits each) may take second year Sanskrit III and IV (2 credits each). Linguistics course; Classical and Medieval Studies course (with appropriate language). Cross-listed with **ENG 318** and **MLA 310**.

LIN 340 Phonology (4-0-4). Prerequisites: **ANT 120** or **LIN 120**, Introduction to Language and Linguistics or **ENG 311** or **LIN 311**, Elements of Linguistics. Introduction to the scientific study of the sound systems of the world's living languages. Includes discussion of the basics of phonetic transcription and phonemic analysis and the development of formal models in phonology. Topics include articulatory and acoustic phonetics, the phoneme, phonological rules and representations, nonlinear models, harmony processes, prosodic morphology, and sound symbolism. Cross-listed with **ANT 340**.

LIN 341 Morphology and Syntax (4-0-4). Prerequisites: **ANT 120** or **LIN 120**, Introduction to Language and Linguistics or **ENG 311** or **LIN 311**, Elements of Linguistics. Introduction to the description and analysis of word formation processes and sentence structure from a crosslinguistic perspective. Instruction in basic morphemic analysis and constituent testing using data drawn from languages outside the Indo-European family. Also includes an introduction to typological analysis in the study of morpho-syntax. Cross-listed with **ANT 341**.

LIN 342 Languages in Contact (4-0-4).
Introduction to the study of linguistic responses to culture contact in a variety of socio-historical contexts. Topics include language and trade, language and colonialism, pidgins and pidginization, creoles and creolization, dialect contact, and the formation of koines. Cross-listed with **ANT 342** and **MLA 342**.

LIN 347 Maya Hieroglyphic Writing I (4-0-4).
This course provides an introduction to Classic Maya writing and texts from a linguistic and anthropological perspective. After an introduction to the origins and functions of writing in Mesoamerica, specifically Classic Mayan culture, students will learn to read Classic Mayan texts. They will examine aspects of the grammatical structure of relevant languages, the relationship of spoken languages to the script, and develop strategies for decipherment based on our understanding of modern Mayan languages. After learning how to decipher texts and supplying linguistic values to written signs, students will analyze and interpret a body of Maya texts for information of general anthropological and linguistic interest such as dynastic history, social and political organization, language and ethnicity, ritual, cosmology, belief systems, verbal morphology and syntax, and local ecology.

LIN 438 Seminar in Urban Language Patterns (4-0-4).
Study of certain aspects of urban language patterns with special attention to linguistic features of those persons described as culturally different. Investigation and discussion of literature on oral language variations as related to listener attitudes, social and economic consequences, school success, and questions concerning approaches to the problem of speech and language specialists. Analysis and evaluation of language samples. Cross-listed with **SPH 438**. *African-American Experience*, *Human Diversity*.

LIN 447 Maya Hieroglyphic Writing II (4-0-4). Prerequisites: **LIN 347**. This course serves as a second, advanced follow-up course in Maya hieroglyphic writing. Its aim is to build on the students' basic knowledge and understanding of the principles and tenants of Maya hieroglyphic writing, learned in LIN 347: Maya Hieroglyphic Writing I, and apply these principles to a series of more challenging texts that are designed to hone and refine a student's skills as an epigrapher. Students will be trained in suggesting ways of establishing the meaning or readings of unknown glyphic elements in order to better understand and evaluate the overall meaning of the text. In general terms, students will integrate both archaeology and epigraphy to reach a more sophisticated understanding of Maya hieroglyphic decipherment and its implications for revising our current understandings of Classic Maya Civilization.

LIN 490 Linguistic Internship (1 to 2 credits).
Prerequisites: Introductory Linguistics course and permission of the faculty anchor and field supervisor. Internships are available in three fields: Teaching adult English as a second language, computer-assisted accent reduction, and lexicography.

LIN 493 Special Topics in Linguistics (2 to 4 credits). Prerequisite: Introductory Linguistics course or permission of instructor. Focus on an advanced linguistic topic such as lexicography, contrastive linguistic systems, or semantics.

LIN 496 Independent Study in Linguistics (1 to 3 credits). Prerequisites: Linguistics major, senior standing, completion of at least two Linguistics core courses, and permission of supervising professor and Linguistics director. Specialized research project of particular interest to the student. May be repeated, but no more than 4 credits count toward the Linguistics major.

Management and Labor Relations Courses

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Faculty

Professors: Tim R.V. Davis, Kenneth J Dunegan, Nels E. Nelson; **Professors Emeriti:** Charles Brooks, Robert E. Hastings, Stuart M. Klein, J. P. Muczyk, Bernard C. Reimann, Y. Wiener; **Associate Professors:** William H. Bommer, Mary W. Hrivnak, Harry J Martin; **Associate Professor Emeritus:** Jeffrey C. Susbauer, Chair; **Assistant Professors:** Georgia J. Anetzberger, George Buckingham, Sung Min Kim, Doohee Lee, Bryan J. Pesta, Susan Strorrud-Barnes, C. Helen Takacs; **Term Instructor:** John W. Reece.

Course Descriptions

MLR 301 Principles of Management (3-0-3).
Prerequisite: Junior standing. Introduces students to managerial roles and functions; covers planning, organizing, controlling, leading, staffing, and problem-solving in contemporary organizations; reviews foundations of management thought and managerial processes that lead to organizational effectiveness.

MLR 302 Principles of Labor Relations (3-0-3).
Prerequisite: Junior standing. Introduces students to labor relations and collective bargaining; covers the parties (union and management), the legal framework, union structure and administration, the employer role, union organizing, bargaining issues, the negotiation process, grievances and arbitration, and public sector labor relations.

MLR 321 Organizational Behavior (3-0-3).
Prerequisite: Junior standing. Analysis of situations involving individual and group behavior. Development of small and large group theory, interpersonal relations, and achievement of the goals of the enterprise with and through people as individuals and as groups. Areas of investigation include communications, direction, coordination, control leadership, and group dynamics.

MLR 340 Human Resource Management (3-0-3).
Prerequisite: Junior standing. Current human-resource issues, policies, and practices. Includes study of legal environment, job analysis, planning, recruiting, selection, training, performance appraisal, compensation, and benefits; strategic and international HR issues are addressed throughout the course.

MLR 341 Compensation and Benefits (previously Personnel Compensation, Performance, and Job Evaluation) **(3-0-3).** Prerequisite: **MLR 340**
or permission of chair. Provides a broad understanding of compensation systems, and how organizations use them to attract, retain and motivate employees. Topics covered include: legal constraints, job analysis and evaluation, performance appraisal, person-based pay, setting and administrating pay structures, incentives, benefits and the compensation of special groups. Topics are covered in depth, and in more detail than in **MLR 340**.

MLR 342 Staffing Organizations (previously Staffing and Developing the Organization) **(3-0-3).** Prerequisite: **MLR 340** or permission of chair. Provides a detailed examination of organizational staffing. Content includes staffing models, legal compliance, planning, downsizing, job analysis, external and internal recruitment, selection testing, interviewing, and retention. Topics are covered in more depth and detail than in **MLR 340**.

MLR 343 Employee Training and Development (3-0-3). Prerequisite: **MLR 340** or permission of chair. Provides an in-depth look at the process of employee training and development. Coverage includes how training relates to organizational strategy, needs assessment, adult learning, training evaluation, management development, selecting trainers and selection of appropriate instructional methods. Addresses training-related issues for specific topical areas such as harassment training and training for global assignments.

MLR 404 Organizational Theory and Design (3-0-3). Prerequisite: **MLR 321** or permission of chair. Nature and importance of organizational structure and design; functions and dysfunctions of traditional designs; how and why organizational designs change; effects of the environment, technology, information and control systems, power structures, and political behavior on organizational performance.

MLR 411 Labor History (3-0-3). Prerequisite: **MLR 302** or permission of chair. Examination of the organized labor movement in the United States and its influence on political and legal institutions; analysis of legislation relating to labor, management, and the public; laws and regulations concerning wages, hours, collective bargaining, labor contracts, and arbitration.

MLR 421 Comparative Labor Systems (3-0-3). Prerequisite: **MLR 302** or permission of chair. American and foreign labor movements; trade unionism and industrial relations systems in different areas of the world, showing their roles in economic, social, and political developments; comparison of structure and functions of labor movements at various stages of economic development.

MLR 422 Labor Law (3-0-3). Prerequisite: **MLR 302**
or permission of chair. The law of industrial relations with emphasis on the Labor-Management Relations Act, including unfair practices and representation cases.

MLR 423 Labor Relations in Public Employment (3-0-3). Prerequisite: **MLR 302** or permission of chair. Collective bargaining by federal, state, and local employees; differences between public and private employment; union security, impasse procedures, and implications of collective bargaining for public management; impact of collective bargaining on wages and other conditions of employment in the public sector.

MLR 431 Employment Practices Law (3-0-3). Prerequisite: **MLR 302** or permission of chair. Analyzes employment-practices law and its impact on employment decision-making; equal employment opportunity and discrimination; occupational safety and health, pension and benefit regulations and laws that pertain to the employment relationship. Emphasis is on the impact of regulations on organization personnel and human resource policy.

MLR 443 Entrepreneurship (3-0-3).

Prerequisite: Senior standing or permission of chair. Exploration of the business formation process, and the management and operation of new/smaller enterprises both within and apart from existing ventures. Students are required to develop a written business venture plan and may act as advisers to existing smaller enterprises.

MLR 447 Cross-Functional Management (4-0-4). Prerequisite: **MLR 301** or permission of chair. Analysis of issues involved in managing different functional departments, and examination of the types of interactions and conflicts that typically occur between departments. Methods of dealing with interdepartmental problems are considered along with current management techniques for improving strategic and operational performance.

MLR 455 Trends in Employee Relations and the Quality of Working Life (3-0-3). Prerequisite: **MLR 302** or permission of chair. Exploration of cooperative work systems and efforts by labor and management to work together to improve the quality of work life by increasing effectiveness of the organization, productivity, quality, and work satisfaction, and understanding the processes used to accomplish these ends.

MLR 457 Human Resource Information Systems (3-0-3). Prerequisite: **MLR 340** or permission of chair. A comprehensive analysis of human-resource information systems with exploration of major applications and use of systems to improve decision-making; emphasizes hands-on use of technology in human resource planning, selection, appraisal, and compensation.

MLR 465 Management Strategy and Policy (3-0-3).
Prerequisites: Senior standing, all college core courses, at least three major-field courses. A business capstone course: integration of the student's background, experiences, and previous core business curriculum through case studies and business decision simulation exercises; development of an effective conceptual approach to integrating administrative policy, strategies, and decision-making; diagnosis, analysis, and solution of interrelated administrative problems. *Writing*.

MLR 477 Managerial Skill Development (3-0-3). Prerequisite: **MLR 321** or permission of chair. Analysis of aspects of managing in which specific behavioral skills can be developed; focus on individual managers and skill development in such areas as goal-setting, time-management, conducting meetings, communication processes, delegation, training, and appraisal interviews.

MLR 487 International Management (3-0-3). Prerequisite: **MLR 321** or permission of chair. Strategic, managerial, and human-resource issues in international business management; cultural differences and managerial practices in different countries; planning and control of small businesses and global enterprises; evaluating the performance of overseas subsidiaries; coordinating operations in different countries; overseas decisions; career concerns with overseas assignments.

MLR 490 Professional Internship (1 to 4 credits).
Prerequisites: Two MLR courses and permission of chair. Provides students with an opportunity to gain practical experience in human resources, labor relations, and/or management; may be arranged at the initiative of the student or the faculty member; offers a maximum of three semester hours for a 15-hour-per-week internship with fewer semester hours offered for fewer hours of work. The course is graded on a Pass/Fail basis.

MLR 493 Special Topics in Management and Labor Relations (1 to 3 credits). Prerequisites: Senior standing and permission of chair. A study of a selected current topic in management. Course topics will vary. Offered as demand warrants.

MLR 496 Independent Study (1 to 3 credits).
Prerequisites: Senior standing, approval of sponsoring professor and department chair, written proposal approved before registration. Flexible in content and structure, this course is designed to enable qualified students to pursue special areas of interest and competency; opportunity for independent study, field research, or other special assignments.

MLR 499 Honors Thesis in Management and Labor Relations (3 credits). Prerequisite: Restricted to senior MLR honors students. Requires the honors student to conduct a piece of original research in management and labor relations under the supervision of an MLR faculty member. The thesis will be presented orally and submitted as a written report.

Marketing Courses

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Faculty

Professors:
Bob D. Cutler, Andrew C. Gross, Rajshekhar G. Javalgi, W. Benoy Joseph, William J. Lundstrom, Edward G. Thomas, Thomas W. Whipple (Chair); **Professor Emeritus:** Robert F. Hartley; **Associate Professors:** Amit K.Ghosh, Rama K. Jayanti, Kenneth R. Mayer, Ivan R. Vernon, Marion Webb; **Assistant Professors:** Ashutosh Dixit, Elad Granot, Sreedhar Madhavaram.

Course Descriptions

MKT 301 Introduction to Marketing (3-0-3).
Prerequisite: Junior standing or permission of department chair. Examines the role of marketing in business and nonprofit organizations from managerial as well as societal and ethical perspectives. Focuses on development and implementation of the marketing program by surveying relevant concepts from the social and behavioral sciences; examining trends in domestic and world markets; and exploring decisions related to market selection, strategic marketing planning, and the marketing mix areas of product, price, promotion, and distribution.

MKT 321 International Business (4-0-4). Prerequisite: **MKT 301**. Introduces concepts, theories, information, and issues that impact business strategies in global markets. Investigates the role of international institutions and the cultural, economic, legal, and geopolitical influences on world trade. Examines the nature of business decisions across such functional areas as human resources management, finance and accounting, marketing, and operations management. Cross-listed with **INB 301**.

MKT 351 Business, Society, and Government (3-0-3). Prerequisite: Junior standing. Investigates organizational, societal, regulatory, and ethical issues and challenges that businesses face in domestic and global environments. Introduces information and analytical tools for studying such issues as corporate power and influence, environmental pollution, corporate social responsibility, consumer protection, affirmative action, quality of worklife, and professional ethics. *Writing*.

MKT 411 Retail Management (4-0-4). Prerequisite: **MKT 301**. Provides retail management and merchandising framework for all types of businesses. Includes store location, layout and design, merchandise offerings, assortments, pricing, and control. Focuses on internal operations, including staffing and supervision, promotions, customer services, store operations, and expense control, as well as opportunities for small retailers; and legal and ethical considerations.

MKT 420 Buyer Behavior (4-0-4). Prerequisite: **MKT 301**. Investigates consumer and organizational buying motives, buying influences, and buying decision-making processes and their implications for marketing strategies and public/social policy. Explores cross-cultural, ethical, and research issues in understanding consumer and industrial/organizational buying.

MKT 431 Marketing Research (4-0-4). Prerequisite: **MKT 301**. Develops a managerial appreciation of the role of research in marketing practice and how results are used in decision-making. Emphasizes the total research process as well as specific research steps, stressing information needs, research formulation and design, and research procedure. Integrates and applies concepts through managerially-oriented marketing research cases and a field research project.

MKT 440 Field Experience Abroad (4-0-4). Prerequisites: **MKT 301** or equivalent; 2.5 GPA, and permission of department chair. This course is a specially arranged, study-abroad field experience which provides intensive business exposure to a target country. Students will conduct hands-on research, visit and interact with the business community in the target country, and prepare written reports on international marketing and business topics.

MKT 441 Advertising and Promotion Management (4-0-4). Prerequisite: **MKT 301**. Explores the role of advertising and promotion in modern marketing strategy. Focuses on market analysis and target audience definition, message development, media strategy, the evaluation of advertising effectiveness, and budgeting. Intended for those planning careers in advertising or general marketing management.

MKT 450 Professional Selling and Sales Management (4-0-4). Prerequisite: **MKT 301**. Covers tasks and responsibilities of professional selling and the challenges of managing both the individual and team sales function. Stresses analytical and interpersonal skills, account management, proposal development, and planning, as well as organizing, directing, motivating, and controlling a sales organization. Examines legal and ethical dimensions of professional selling.

MKT 452 Business-to-Business Marketing (4-0-4). Prerequisite: **MKT 301**. Explores concepts, analytical tools, management practices, and advances in marketing goods and services to industrial, commercial, institutional, and other business markets in domestic and global environments. Includes lectures, case analyses, discussion, oral presentations, written reports, and execution of a field project.

MKT 454 Internet Marketing (4-0-4). Prerequisite: **MKT 301**. Provides an introduction to Internet technology and the marketing opportunities presented by this technology. A multidimensional approach is used to combine practical applications with marketing principles.

MKT 456 Customer Relationship Management (4-0-4). Prerequisite: **MKT 301**. Introduces the basic theories and methodology of customer relationship management, including identifying profitable customers, understanding their needs and wants, and building a bond with them by developing customer-centric products and services directed toward providing customer value. Provides hands-on experience with popular analytical CRM and data mining tools that are widely used in the industry. Topics will cover the issues in the customer life cycle: market segmentation, customer acquisition, basket analysis and cross-selling, customer retention and loyalty, and practical issues in implementation of successful CRM programs.

MKT 461 Global Marketing (4-0-4). Prerequisite: **MKT 301**. Introduces students to the concepts and management tools of international marketing. Topics include evaluating the global environment economically, culturally, politically and legally, screening and researching international business opportunities; and formulating appropriate marketing strategies to enter global markets and build sustainable

advantages.

MKT 464 Marketing Strategy (4-0-4). Prerequisites: **MKT 420** and **MKT 431**. Applies marketing principles, practices, and theories to the formulation of strategic marketing plans and solutions for U.S. and global markets . Builds analytical skills in diagnosing marketing problems, identifying opportunities, analyzing alternative courses of action, and reco mmending marketing strategies and action plans. Emphasizes decision-making, financial and ethical analysis, and individual and team as signments involving marketing cases, field projects, class discussions, written reports, and oral presentations.

MKT 490 Professional Marketing Internship (2 to 4 credits). Prerequisites: Junior standing, **MKT 420**, **MKT 431**, and minimum overall GPA of 2.5. Written proposal approved befor registration by sponsoring profess or and department chair. Contact department office to request application. Designed to provide marketing students with practical e xperience in exploring career paths in marketing management, marketing research, sales, retailing, advertising, and related fields. Wor king under the supervision of a marketing professional, student must work a minimum number of hours over the course of the semes ter to earn the desired number of course credit: 150 hours (2 credits), 225 hours (3 credits), or 300 (4 credits). A term repor t, incorporating theory, marketing tools, and practical applications, must be submitted to sponsoring organization and professor.

MKT 493 Special Topics in Marketing (1 to 4 credits, set by Department). Prerequisite: **MKT 301**. A study of selected current topics in the field of marketing. Emphasis will be placed on exploring current literature, ad vanced problems, and research tools applicable to the chosen topic.

MKT 496 Independent Study (1 to 4 credits).
Prerequisites: Senior standing. Written proposal approved before registration by spons oring professor and department chair. A flexible content/structure course designed to enable qualified students to pursue special areas of interest and competency; opportunity for independent study, field research, or other special assignments.

MKT 499 Honors Thesis in Marketing (4 credits).
Prerequisite: Restricted to senior MKT honors students. Requires the honors student to conduct a piece of original research in marketing under the supervision of a Marketing faculty member. The thesis will be pres ented orally and submitted as a written report.

Mathematics Courses

On this page:

- **Faculty**
- **Course Descriptions**
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- **Back to Course Index**

Faculty

Professors:
Gregory M. Lupton (Chairperson), Ching Lung Chang, Pratibha Ghatage, Keith M. Kendig, Rasul A. Khan, , Roger H. Marty, John F. Oprea, Brian M. Scott, Sally SaiLai Shao, Allan J. Silberger, Chung-yi Suen, John J. Walsh; **Professors Emeriti:** Shih-Hung Chang, Thomas W. Hungerford, Sundaresan Kondagunta, Sherwood D. Silliman, Chester W. Topp; **Associate Professors**: John P. Holcomb, Arthur Lieberman, Barbara Haas Margolius, Luiz Felipe Martins, Ieda W. Rodrigues; **Associate Professors Emeriti:** Richard H. Black, Leonard F. Bruening, Paula C. Gnepp, David Herlacher, Shirley A. Lilge, Frank W. Lozier, Stewart M. Robinson; **Assistant Professors:** Peter Bubenik, Leah Gold, Thomas Jaki, Naomi Klarreich, Carol Phillips-Bey, Ivan Sopru nov, Yuping Wu.

Course Descriptions

Students with credit in MTH 182, or in any mathematics course numbered above 220, may not register for a mathematics course numbered 168 or lower. A student who attempts to do so will be given a grade of W in the ineligible course. This rule takes precedence over the university regulations on repeated courses whenever both are applicable.

Placement Tests: All students must take the Mathematics Placement Examination before they will be permitted to register for mathematics courses numbered 115, 118, 119, 127, 147, 151, 167, 168, and 181, except for students who have passed the appropriate prerequisite course. Mandatory placement for these courses is in effect. Students are not permitted to register for a higher-level course than indicated by their placement exam score.

- **Preparatory Courses**
- **Courses for Humanities, Business, Education, and Social Sciences**
- **Courses for Mathematics, Science, Engineering, Computer Science and Education Majors**
    - **Precalculus and First-Year Calculus Courses**
    - **Intermediate Courses**
    - **Advanced Courses**

Preparatory Courses

A student who has been unconditionally admitted to the university should have already mastered the material in these courses. Credit earned in MTH 087 or MTH 088 does not count toward graduation.

MTH 087 Basic Math and Algebra for Liberal Arts Majors (4-0-4). MTH 087 begins with a review of arithmetic topics such as fractions, decimals, percents, integers, and order of operation. It then proceeds to a review of algebra topics such as solving and graphing linear equations and inequalities, solving and graphing simultaneous equations and inequalities. MTH 087 concludes with an introduction to statistics and probability. Pass/fail system of grading, but students receive modified letter grades: S(A), S(B), S(C), U(D), U(F). The letter grades in parentheses are not computed in the students' GPAs. No credit toward graduation.

MTH 088 Basic Math and Algebra for Business and Science Majors (4-0-4). MTH 088 begins with a pre-algebra review. It then proceeds to basic algebra topics such as linear and quadratic equations and inequalities, rational and radical expressions, linear systems with emphasis on graphing and applications through problem-solving as well as relations and functions. Pass/fail system of grading, but students receive modified letter grades: S(A), S(B), S(C), U(D), U(F). The letter grades in parentheses are not computed in the students' GPAs. No credit toward graduation.

MTH 115 Intermediate Algebra (4-0-4). Prerequisite: **MTH 087** or **MTH 088** or suitable placement-test score. Extension of basic algebra techniques, linear equations, and linear inequalities, an introduction to functions, roots, radicals, exponents, quadratic equations, solution of second degree equations and applications, and the analysis and solution of word problems.

Courses for Humanities, Business, Education, and Social Sciences

Any course in this section, except **MTH 127**, is suitable for meeting the *Mathematics and Logic* requirement of the GenEd. Credit earned in these courses does not count toward the mathematics major.

MTH 118 Mathematics for Liberal Arts (4-0-4). Prerequisite: A grade of SC or better in **MTH 087** or suitable placement-exam score. Various topics from elementary mathematics selected to help develop an appreciation for mathematics and its role in a liberal education. *Mathematics and Logic*.

MTH 119 Statistics for Liberal Arts (4-0-4). Prerequisite: A grade of SC or better in **MTH 087** or suitable placement-exam score. Not open to students who have previously earned credit for or are currently taking **MTH 147**. Various topics from elementary statistics selected to enhance understanding of the uses and abuses of statistical ideas. This course includes fundamental information about statistics needed for good citizenship and contrasts with a course emphasizing statistical techniques used in social or physical science. *Mathematics and Logic*.

MTH 127 Mathematics for Elementary and Middle School Teachers I (4-0-4). Prerequisite: A grade of SC or better in **MTH 087** or suitable placement-test score. Topics needed to teach elementary and middle school mathematics, including numeration systems and whole number arithmetic, integers and number theory, rational and real numbers, problem solving, and applications.

MTH 128 Mathematics for Elementary and Middle School Teachers II (4-0-4). Prerequisite: **MTH 127**. *Additional topics for the elementary curriculum, including geometry, measurement, and applications. The course will incorporate the use of appropriate computer software for the elementary school classroom such as LOGO and Cabri. Mathematics and Logic*.

MTH 129 Mathematics for Elementary and Middle School Teachers III (2-0-2). *Prerequisite: **MTH 127**. Additional topics for the elementary curriculum, including probability and statistics. The course will incorporate the use of appropriate technology for the elementary school classroom such as the TI-73 calculator with the CBR and computer software Fathom and Excel. Mathematics and Logic*.

MTH 147 Statistical Concepts with Applications (4-0-4). Prerequisite: A grade of SC or better in **MTH 087** or suitable placement-test score. A first course in statistics that emphasizes statistical methodology as applied in the social and behavioral sciences, education, and business; topics include descriptive statistics, elementary probability, elementary sampling theory, estimation, hypothesis testing, regression and correlation. (Note that students who earn credit for MTH 147 cannot earn subsequent credit for **MTH 119**.) *Mathematics and Logic*.

MTH 151 through MTH 156 Mathematical Concepts. Each of these is a 1- or 2-credit course. Normally a student must register for MTH 151, 152, and 153, or for MTH 154, 155, and 156. One is taught at the beginning of the semester, one in the middle of the semester, and one at the end of the semester.

A graphing calculator is required for MTH 151 to 156. Consult the Mathematics Department for recommended models.

MTH 151 Mathematical Concepts 1a (1-0-1). Prerequisite: A grade of SC or better in **MTH 088** or suitable placement-test score. Equations of lines, word problems, linear, polynomial and rational inequalities, graphs of functions, linear and quadratic functions, and their applications. *Mathematics and Logic*.

MTH 152 Mathematical Concepts 1b (2-0-2). Prerequisite: **MTH 151**. Systems of three or more linear equations, Gauss-Jordan elimination, matrix methods, linear programming. *Mathematics and Logic*.

MTH 153 Mathematical Concepts 1c (1-0-1). Prerequisite: **MTH 152**. Polynomial, exponential, and logarithmic functions and graphs, math of finance. *Mathematics and Logic*.

MTH 154 Mathematical Concepts 2a (1-0-1). Prerequisite: **MTH 153**. Intuitive differential calculus, derivatives, applications of derivatives. *Mathematics and Logic*.

MTH 155 Mathematical Concepts 2b (2-0-2). Prerequisite: **MTH 154**. Intuitive integral calculus, antiderivatives, the definite integral, applications, partial derivatives. *Mathematics and Logic*.

MTH 156 Mathematical Concepts 2c (1-0-1). Prerequisite: **MTH 155**. Probability, permutations, combinations, Bayes' Theorem. *Mathematics and Logic*.

Courses for Mathematics, Science, Engineering, Computer Science and Education Majors

Precalculus and First-Year Calculus Courses

The precalculus courses (MTH 167 and MTH 168) are designed for students who intend eventually to take calculus (MTH 181) and are not intended as general education courses. Depending on the placement-test score, a student starts with MTH 167 or with MTH 168. Credit earned in precalculus courses does not count toward the mathematics major.

A graphing calculator is required for MTH 167, 168, 181, and 182. Consult the Mathematics Department for recommended models.

MTH 167 Precalculus Mathematics I (4-0-4). Prerequisite: A grade of SC or better in **MTH 088** or suitable placement-test score. Brief review of intermediate algebra techniques, rectangular coordinates, graphs of equations; and functions, lines, circles, detailed study of functions, graphing techniques. *Mathematics and Logic*.

MTH 168 Precalculus Mathematics II (4-0-4). Prerequisite: A grade of C or better in **MTH 167** or suitable placement-test score. Functions, polynomial and rational functions, exponential, logarithmic, trigonometric, and inverse trigonometric functions. *Mathematics and Logic*.

MTH 181 Calculus I (4-0-4). Prerequisite: A grade of C or better in **MTH 168** or suitable placement-test score. Differential calculus including functions, limits, derivatives, continuity, applications of derivatives. *Mathematics and Logic*.

MTH 181H Honors Calculus I (4-0-4). Prerequisites: A grade of C or better in **MTH 168** or suitable placement test score, Honors standing or permission of university Honors Program. Differential calculus including functions, limits, derivatives, continuity, applications of the derivative. Covers the same basic topics as **MTH 181**, but with greater emphasis on rigorous treatment of the underlying mathematical ideas and realistic applications. *Mathematics and Logic*.

MTH 182 Calculus II (4-0-4). Prerequisite: A grade of C or better in **MTH 181**. Integral calculus including antiderivatives, definite integrals. Applications of integration, transcendental functions, techniques of integration, l'Hôpital's Rule, improper integrals, infinite series, power series. *Mathematics and Logic*.

MTH 182H Honors Calculus II (4-0-4). Prerequisites: A grade of C or better in **MTH 181H** or suitable placement score, Honors standing or permission of university Honors Program. Integral calculus including antiderivatives, definite integrals. Applications of integration, transcendental functions, techniques of integration, l'Hôpital's Rule, improper integrals, infinite series, power series, polar coordinates. Covers the same basic topics as **MTH 182**, but with greater emphasis on rigorous treatment of the underlying mathematical ideas and realistic applications. *Mathematics and Logic*.

Intermediate Courses

MTH 220 Introduction to Discrete Mathematics (4-0-4). Prerequisites: A grade of C or better in **MTH 156** or a grade of C or better in **MTH 182**; and **CIS 260**
or equivalent. Sets, relations, and functions; the concept of algorithm; mathematical induction and recursive definition. Applications of these fundamentals are chosen at the instructor's discretion from graph theory, Boolean algebra, lattice theory, finite-state automata, elementary grammars, and the theory of recurrence relations.

MTH 247 Applied Statistics (4-0-4). Prerequisite: A grade of C or better in **MTH 147** or consent of instructor. Topics include design of experiments, analysis of variance, multiple and logistic regression, and time series analysis. This course will emphasize the applied nature of statistical analysis and require using a statistical analysis software package such as SPSS. No credit toward the mathematics major. *Mathematics and Logic.*

MTH 281 Multivariable Calculus (4-0-4). Prerequisite: A grade of C or better in **MTH 182**. Multivariate and vector calculus, including three-dimensional analytic geometry, partial derivatives, multiple integrals, vector calculus, line integrals, Green's Theorem. Only 2 of the 4 credits may be counted toward graduation by students who have passed **MTH 283**.

MTH 283 Multivariable Calculus for Engineers (2-0-2). Prerequisite: A grade of C or better in **MTH 182**. Multivariate calculus including three-dimensional analytic geometry, partial derivatives, multiple integrals. Students who have passed **MTH 281** may not

register for **MTH 283**. A student who attempts to do so will be given a grade of W.

MTH 284 Matrices for Engineers (2-0-2). Prerequisite: A grade of C or better in **MTH 182**. Matrix algebra, including matrices and systems of linear equations, determinants, inverses, eigenvalues and eigenvectors. Stu dents who have passed **MTH 288** may not register for **MTH 284**. A student who attempts to do so will be given a grade of W.

MTH 286 Introduction to Differential Equations (4-0-4). Prerequisite: A grade of C or better in **MTH 182**. First-order differential equations, linear differential equations, first order systems, Laplace transform techn iques, and applications.

MTH 288 Linear Algebra (4-0-4). Prerequisite: A grade of C or better in **MTH 182**. Systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors. Only two of the four credits may be counted toward graduation by students who have passed **MTH 284**.

Advanced Courses

MTH 301 Introduction to Applied Mathematics (4-0-4). Prerequisite: At least one mathematics course numbered 280 or above. Applications of mathematics to real-world problems, including topics such as Monte-Car lo methods (pricing financial securities, light scattering, volumes of irregular shapes); population growth and other environmental is sues; and encryption. Emphasis on formulating and evaluating solution strategies and carrying them out using standard software.

MTH 311 Numerical Analysis (4-0-4). Prerequisites: **MTH 284** or **MTH 288**, **MTH 286**, and a computer programming language. Numerical methods for solving nonlinear equations, systems of linear equations, interp olation problems, integration problems, and differential equations.

MTH 323 Statistical Methods (4-0-4). Prerequisites: **MTH 182** and a 200-level mathematics course. Issues of data collection, graphical and numerical summary techniques, basic probability, discrete random variables, contin uous random variables, central limit theorem, confidence intervals, hypothesis testing of a proportion, hypothesis testing of a mean , 2 sample hypothesis testing, chi square testing, regression.

MTH 326 Numbers, Patterns and Operations for Middle School Teachers (4-0-4). Prerequisite: Enrollment is restricted to students seeking middle childhood licensure with mathematics as one of their two areas of conce ntration or by permission of Mathematics Department chairperson. An in-depth study of mathematical topics in middle school curr icula in the area of numbers, patterns and operations. Topics include numeration concepts, concepts of measurement, study of rati onal and irrational numbers, proportionality, estimation and operations. No credit toward the mathematics major or minor. Enrollment is restricted to students seeking childhood licensure or a specialization in childhood education.

MTH 327 Algebra and Functions for Middle School Teachers (4-0-4). Prerequisite: Enrollment is restricted to students seeking middle childhood licensure with mathematics as one of their two areas of concentration or by permission of Mathematics Department chairperson. Emphasis on algebra as a powerful symbolic language for studying patterns , relations, and variation; for solving linear and quadratic equations and inequalities; and for modeling real life situations. Emphasis is on variables and functions in symbolic and graphical forms, especially linear, quadratic, exponential, logarithmic, and inverse f unctions. Goals include developing deep understandings of these topics as appropriate for middle school teachers. No credit to ward the mathematics major or minor.

MTH 328 Geometry for Middle School Teachers (4-0-4). Prerequisite: Enrollment is restricted to students seeking middle childhood licensure with mathematics as one of their two areas of concentration or by permission of Mathematics Department chairperson. This course is designed to increase the conceptual understanding of geometry for middle sch ool teachers. Topics will include dynamic geometry integrating use of computer software; basic geometry theorems and constructio ns; similarity, proportion, scaling, and geometric growth; tessellations; simple trigonometric relationships; van Hiele levels of geometric graphical representations; transformational geometry and analytic geometry. No credit toward the mathematics majo r or minor. *Mathematics and Logic*.

MTH 329 Data Analysis and Probability for Middle School Teachers (4-0-4). Prerequisite: Enrollment is restricted to students seeking middle childhood licensure with mathematics as one of their two areas of conce ntration or by permission of Mathematics Department chairperson. Ratios, fractions, percentages, data collection, graphical exp erimentation, basic strategies of data analysis, some statistical methods to analyze data, inference based on data and simulation. No c redit toward the mathematics major or minor. *Mathematics and Logic*.

MTH 330 Conversational Calculus for Middle School Teachers (4-0-4). Prerequisite: **MTH 327**. An introduction to the concepts of calculus. Pictures and hands-on experiments are used to develop an overview of the big ideas and an appreciation of how calculus helps us understand the real world. Includes differentiation, integration and applicat ions of calculus to the real world. No credit toward the mathematics major or minor. Enrollment is restricted to students seeking childhood licensure or a specialization in childhood education.

MTH 333 Geometry (4-0-4). Prerequisite: **MTH 284** or **MTH 288**. The main focus is on two-dimensional Euclidean geometry. Basic topics covered include congruence, parallelism, area, and similarity. These are discus sed from the axiomatic point of view. Other topics include transformation geometry, non-Euclidean geometry, vectors in geometry and some three-dimensional Euclidean geometry. Many applications are given, such as analysis of repeating patterns, computer graphics, car tography, and robot arm motion.

MTH 358 Abstract Algebra (4-0-4). Prerequisite: **MTH 288** . An introduction to modern abstract algebra, concentrating on the integers and number theory, rings, fields, polynomials, and applications of these concepts. *Writing*.

MTH 381 Analysis (4-0-4). Prerequisites: **MTH 284** or **MTH 288**, and at least one mathematics course numbered 300 or above. Introduction to the real-number system, sequences, continuity properties in a metric s pace, applications to connectedness, sequences and series of functions, basics of differentiation, and Riemann integration.

MTH 386 Differential Equations (4-0-4). Prerequisites: **MTH 281** and **MTH 288** or **MTH 283** and **MTH 284**, and **MTH 286**. Series solutions of second-order linear equations, qualitative behavior of linear and almost linear systems of first-order differential equations, boundary value problems, introduction to partial differential equations.

MTH 389 Functions of a Complex Variable (4-0-4). Prerequisite: **MTH 281** or **MTH 283**. This course deals with the fundamentals of complex analysis, including basic properties of complex numbers, analytic functions, h armonic functions, integration, Taylor and Laurent series, residue calculus and conformal mapping. A main focus of the course is the appl ication of conformal mapping techniques (such as Möbius transformations and symmetry) to solve electrostatics, fluid flow, and heat flow problems.

MTH 390 Foundations of Computing (3-0-3). Prerequisites: **MTH 181**, 182, **MTH 220**, and **CIS 335**; Mathematics majors may substitute one mathematics course numbered 280 or above for **CIS 335**. Sets, relations, regular languages, finite automata, context-free languages, pushdown automata, phrase-structure languages, Turing machines , Church's theory, recursion, computability, decidability, computational complexity. Cross-listed with **CIS 490**.

MTH 396 Junior Seminar (2-0-2). Prerequisites: **MTH 182**; three of **MTH 220**, **MTH 220**, **MTH 281**, **MTH 286** and **MTH 288**, all grade "C" or better; or departmental approval. Weekly meetings introduce students to a wide range of mathematical topics and also include

workshops on various aspects of writing cogent and well-formulated technical reports in mathematics. A primary goal of this course is to prepare the student for **MTH 496 Senior Project**. Successful completion of the course requires the student having an approved topic and supervisor for MTH 496.

MTH 401 Mathematical Modeling (4-0-4). Prerequisites: **MTH 284** or **MTH 288**, **MTH 286**, and at least one mathematics course numbered 300 or above (MTH 301 recommended). Deterministic and probabilistic models chosen from the areas of linear optimization, Markov chains, game theory, graphs and networks, axiom systems, growth processes, and queuing systems.

MTH 420 Combinatorial Mathematics (4-0-4).
Prerequisite: At least one mathematics course numbered 300 or above. A survey of combinatorial methods, including binomial coefficients and other special numbers, recurrence relations, calculus of finite differences, and generating functions, emphasizing exact evaluation of combinatorial sums in closed form.

MTH 424 Probability Theory and Applications (4-0-4). Prerequisites: **MTH 281** or **MTH 283**, **MTH 284** or **MTH 288**, and a 300-level mathematics course. General probability (set functions, basic axioms, independence); Bayes' theorem; univariate probability distributions (probabilities, moments, variance, mode, percentiles, transformations); multivariate probability distributions (central limit theorem, joint conditional and marginal distributions - probabilities, moments, variance, covariance); discrete and continuous time Markov chains; selected applications.

MTH 434 Differential Geometry (4-0-4). Prerequisites: **MTH 281** or **MTH 283**, **MTH 286**, and at least one mathematics course numbered 300 or above. This course focuses on the calculus, linear algebra, and geometry of curves and surfaces, as well as applications to engineering and science. Material covered will include the curvature and torsion of curves, Gaussian and mean curvatures of surfaces, minimal surfaces, geodesics, holonomy, and the Gauss-Bonnet theorem. Optional material includes applications of the calculus of variations to geometry and of minimal surface theory to soap film formation.

MTH 487 Dynamical Systems (4-0-4). Prerequisites: **MTH 284** or **MTH 288**, **MTH 286**, and at least one mathematics course numbered 300 or above. Systems of differential equations, local and global behavior of a vector field in the plane, discrete dynamical systems, structural stability, the Poincare-Bendixon theorem, bifurcations, chaos, and strange attractors.

MTH 493 Special Topics in Mathematics (4-0-4).
Prerequisite: At least one mathematics course numbered 300 or above, or permission of instructor. Detailed study of a selected topic in advanced mathematics. Topic will vary, depending on instructor. May be taken for credit more than once, but no single topic may be repeated. Consult Mathematics Department for current information.

MTH 493H Special Topics in Mathematics Honors (4-0-4). At least one mathematics course at the 300 level or above, plus approval of the Department Honors Liaison Officer. Detailed study of a selected topic in advanced mathematics. Topics will vary, depending on instructor. May be taken for credit more than once, but no single topic may be repeated. This course will demand mathematical rigor to a degree beyond regular mathematics courses. In addition, students will play a more active role in the discovery and exploration of mathematical truth. Consult the Mathematics Department for current information.

MTH 495 Senior Seminar (2-0-2).
Prerequisites: At least two mathematics courses numbered 300 or above, or departmental approval. This is the department's main assessment tool. Students will read papers in technical journals, choose a research topic, and write a technical report. Three key assessment areas are mathematical modeling (translating real-world situations into mathematics), mathematical reasoning (manipulation, by hand or by computer, of data and expressions using valid mathematical techniques) and communication (ability to write cogent and well-formulated reports).

MTH 496 Senior Project (4-0-4). Prerequisites: **MTH 396** (grade of S) and at least two other mathematics courses numbered 300 or above, or departmental approval. Prerequisite or co-requisite: At least one other mathematics course numbered 400 or above, or departmental approval. Working individually with a faculty supervisor, each student will read papers in technical journals, make an oral presentation, and write a technical report. *Writing*.

MTH 496H Honors Project (4-0-4).
At least two mathematics courses numbered 300 or above, plus approval of the Department Honors Liaison Officer. Students will work individually with a mathematics faculty investigating a mathematical or statistical topic of mutual interest. Students will be required to read articles assigned by the faculty member. A student's work will consist of a written pre-proposal, and a final paper complete with Abstract, Introduction, Methods, Results, Discussion, and References. In addition, students will give an oral presentation of their work to department faculty and students.

MTH 497 Readings in Mathematics (1 to 4 credits). Prerequisite: Departmental approval. Topics studied under supervision of an adviser.

Mechanical Engineering Courses

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Faculty

Professors:
Kalil A. Alkasab, John L. Frater, Rama S. R. Gorla, Mounir B. Ibrahim, Edward G. Keshock, Paul P. Lin (Chairperson), Jerzy T. Sawicki; **Professors Emeriti:** Lowell C. Domholdt, George V. Parmelee; **Associate Professors:** William J. Atherton, Asuquo B. Ebiana, Earnest N. Poulos, Majid Rashidi; **Associate Professors Emeriti:** William F. Kerka, Dwight L. Penney; **Assistant Professor:** Hanz Richter.

Course Descriptions

MCE 102 Technical Writing & Professional Communication (2-0-2). Prerequisite: **ENG 101**. Technical writing as a process for organized expression of ideas and knowledgeable opinion; oral presentation and writing of letters, reports, memos, and proposals for effective communication; utilization of word-processing software to assist in the writing process. *English: Equivalent to **ENG 102***.

MCE 255 Computer Aided Engineering Design (4-0-4). Prerequisites: **IME 250** , **IME 251**. Integration of computer-aided design with computer-aided manufacturing and engineering; introduction to optimum design.

MCE 305 Kinematics and Dynamics of Machinery (4-0-4). Prerequisite: **ESC 202**. Displacements, velocities, accelerations in mechanisms; cam design; dynamics of machinery.

MCE 324 Introduction to Heat Transfer (4-0-4). Prerequisites: **ESC 250**, **ESC 301**, **ESC 321**. Steady and unsteady conduction in one- and two-dimensions; forced convection, internal and external flows; heat exchangers; introduction to radiation; elements of thermal system design.

MCE 367 Machine Design (4-0-4). Prerequisite: **ESC 211**. Design of machine elements under static and fatigue loading; design and application of gearing; force analysis of spur, helical, bevel and worm gears; design of gears for static and fatigue loading; use of keys, pins, and splines to attach gears to shafts.

MCE 371 Vibrations (4-0-4). Prerequisite: **ESC 250**. Study of vibration and shock problems in machinery and machine design.

MCE 380 Instrumentation and Measurements Laboratory (2-3-3). Prerequisite: **ESC 315**. Corequisite: **MCE 324**. Introduction to engineering measurements, standards and calibration, sensors and measurement system characteristics, signal conditioning and digital signal processing, instrumentation interfacing concepts, and measurement errors.

MCE 391H Junior Honors (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program, and junior standing. With approval of undergraduate adviser and collaboration of the course instructor, any 300-level MCE course except for **MCE 380** can be modified to become this honors course.

MCE 403 Modeling and Simulation of Mechatronic Systems (4-0-4). Co-requisite: **MCE 441**. Unified approach to modeling of dynamic systems using bond graphs, with emphasis in electromechanical systems. Object-oriented and automated modeling concepts. Computer simulation and model validation.

MCE 421 Applied Thermodynamics (4-0-4). Prerequisite: **ESC 321**. Selected thermodynamic cycles applied to real machines and systems, chemical reaction, dissociation phenomena, selected topics in classical thermodynamics.

MCE 424 Applied Heat Transfer (4-0-4). Prerequisite: **MCE 324**. Convective heat and mass transfer analogies, free convection, phase change, radiation in enclosure and gaseous media, mass diffusion, thermal systems analysis and design (including heat exchangers, heat pipes, solar systems, humidifiers).

MCE 425 Heating, Ventilating, and Air Conditioning (3-0-3). Prerequisite: **MCE 324**. Design of heating, air-conditioning, and total-energy systems to provide thermal environments for building structures ranging in scope from single residence to integrated commercial, apartment, or industrial complexes. Course includes factors affecting human comfort, psychrometrics, heating and air-conditioning systems, heat pumps, geothermal systems, and utilization of solar energy; computer simulation of transient and steady-state heating and cooling loads in buildings; the selection of controls and appropriate equipment size.

MCE 430 Applied Fluid Mechanics (4-0-4). Prerequisite: **ESC 301**. Navier-Stokes equations and boundary layer analysis; introduction to compressible flow; fundamentals of turbomachinery; propulsion systems; fluid systems analysis and design.

MCE 441 Introduction to Linear Control Systems (4-0-4). Prerequisites: **ESC 350**, **MCE 371**. Introduction to mathematical modeling and design of systems using one- and two-port devices; controller design; stability analysis; root locus techniques; Bode diagrams; transient and steady-state response and design of closed loop control systems.

MCE 444 Applied Combustion Processes (4-0-4). Prerequisites: **MCE 324**, **MCE 421**. Review of chemical kinetics; conservation equations for multicomponent reacting systems; premixed laminar and turbulent flames.

MCE 445 Modern Controls (4-0-4). Prerequisites: **MCE 441**. Classical design of control systems; state space analysis; state space design of regulator systems; linear quadratic regulator problem; optimal observer design; computer simulation of control systems.

MCE 446 Principles of Turbomachinery and Applications (4-0-4). Prerequisites: **ESC 301**, **ESC 321**. Derivation of fluid and thermodynamic relations along with passage losses for turbomachinery. Applications include analysis and design of axial and radial flow turbines, compressors and pumps.

MCE 450 Design Project I (2-0-2).
Prerequisite: Completion of junior year program in mechanical engineering. Course requires the preparation of an engineering system design or project proposal covering problem identification, conceptual design, and the schedule of work required to carry out the project. (Projects are carried out in **MCE 451**
in a subsequent term.) Concurrent seminars on methodology, decision-making, and design evaluations. *Writing*.

MCE 451 Design Project II (0-3-2). Prerequisite: **MCE 450**. Execution of engineering system project planned in **MCE 450**, Engineering Design Seminar. Formal report required. *Writing*.

MCE 465 Advanced Machine Analysis (4-0-4). Prerequisite: **MCE 367**. Finite Element analysis of stresses and deflections in complex mechanical systems under static and dynamic loading. Integrating modeling techniques with 2D- and 3D-CAD systems for inputting

geometric data. Comparisons of finite element results with theoretical and empirical results.

MCE 467 Lubrication and Bearing Design (4-0-4). Prerequisite: **MCE 367**. Design of bearings for hydrodynamic, hydrostatic, and elastohydrodynamic lubrication regimes. Cross-listed with MCE 567.

MCE 482 Machine Systems Laboratory (2-3-3). Prerequisites: **MCE 371**, **MCE 380**. Vibration, sound, and dynamic behavior of machine systems.

MCE 483 Thermal Systems Laboratory (2-3-3). Prerequisites: **MCE 324**, **MCE 380**. Experimentation and analysis of thermal/fluid systems, energy balances, performance measurements of devices and systems, data analysis and correlation, elements of experimental design.

MCE 484 Mechanical Systems Control Laboratory (2-3-3). Prerequisites: **MCE 380**, **MCE 441** . Application of linear control theory to experimental study of mechanical, hydraulic, pneumatic control systems, simulation of control systems.

MCE 485 Fluid Power Systems Laboratory (2-3-3). Prerequisites: **ESC 301**, **MCE 371**, **MCE 380**. Introduction to hydraulic and pneumatic fluid power components and systems, design of fluid power systems, analysis of components and systems, experimental verification of system modeling.

MCE 491H Senior Honors (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program, and senior standing. With approval of undergraduate adviser and collaboration of the course instructor, any 400-level MCE course except for MCE Technical Lab Electives can be modified to become this honors course.

MCE 493 Special Topics in Mechanical Engineering (4-0-4). Prerequisites: Senior standing and permission of individual instructor. Special offering of course material in an area of current interest to students, faculty, and the professional community.

MCE 495H Honors Research (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program, and senior standing. This is research conducted jointly with a MCE faculty member, similar to an independent study. A final research report is required.

MCE 496 Independent Study (4-0-4).
Prerequisites: Senior standing, GPA of 3.0, and departmental approval. Independent research of a topic not previously studied in other mechanical engineering courses. Offered under the supervision of a faculty member. A formal report is required.

MCE 499H Honors Thesis (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program, and senior standing. The student is to work with the undergraduate adviser to form a thesis committee, write and orally defend his or her thesis.

Military Science Courses

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Course Descriptions

Note: Enrollment in MSC 100- and 200-level courses is normally for freshmen and sophomores. The MSC 300- and 400-level classes require prior approval of the Military Science Department.

MSC 101 Intro to Leadership I (1-0-1).
One hour of class per week focusing on several topics including organization and role of the U.S. Army, customs and traditions of the military, time management, and Army values. Lecture format and student discussion are used to reinforce basic leadership skills.

MSC 102 Intro to Leadership II (1-0-1).
One hour of class per week focusing on leadership development. Topics include branches of the Army, problem solving, communications, and current military issues. Emphasis on basic leadership skills is accomplished through lecture and student interaction.

MSC 201 Team Leadership I (1-1-2).
Two hours of classroom instruction per week focusing on map reading and leadership. Various leadership styles are examined through use of military literature and video. **MSC 299**, Military Science Lab, is a corequisite for contracted cadets only.

MSC 202 Team Leadership II (1-1-2).
Two hours of classroom instruction per week focusing on leadership and teamwork. Examples of military leadership are reviewed in literature and video. **MSC 299**, Military Science Lab, is a corequisite for contracted cadets only.

MSC 299 Intermediate Military Science II Lab. Prerequisite: Concurrent enrollment in **MSC 201**, **202**, or **203**. Lab stresses practical experience in basic soldierly skills while preparing cadets for Advanced Military Science.

MSC 301 Leading Small Organizations I (2-2-2).
Prerequisite: Prior approval of Military Science Department. Two classroom hours in seminar format with practical exercises. Course covers the principles of modern warfare, small unit tactics, leadership, operations orders. Class in concert with the **MSC 399** Lab, a corequisite, will also provide preparation for the Advanced Summer Camp.

MSC 302 Leading Small Organizations II (2-2-2).
Prerequisite: Prior approval of Military Science Department. Two classroom hours in seminar format with practical exercises. Course covers small unit tactics, patrolling, leadership, communications, and navigation. Class in concert with the **MSC 399** Lab, a corequisite, will also provide preparation for the Advanced Summer Camp.

MSC 399 Junior Military Science Lab. Prerequisites: Prior approval of Military Science Department and concurrent enrollment in **MSC 301** or **302**. Lab stresses practical experience and involvement in leadership, tactics, navigation, communications, and operations planning. Each student will be provided many opportunities for leadership through practical exercises.

MSC 401 Transition to Lieutenant I (2-0-2).
Prerequisite: Prior approval of Military Science Department. Two hours of classroom instruction covers United States Army staff procedures with emphasis on administration, training management, and logistical management. Leadership portion discusses various leadership theories and ethics and professionalism.

MSC 402 Transition to Lieutenant II (2-0-2).
Prerequisite: Prior approval of Military Science Department. Two hours of classroom instruction covering topics of concern for the junior officer, including military justice, race relations, and drug and alcohol abuse. The course also covers those areas of military life that all junior officers will face, including discussion of subjects such as superior/subordinate relationships, pay and leave policy, military benefits, education, and promotion opportunities.

MSC 499 Military Science Lab.
Prerequisite: Prior approval of Military Science Department. Lab stresses practical application of leadership and management skills, while staffing the Cadet Battalion. Prepares cadets for assumption of their responsibility in the Army's Active and Reserve Components.

Modern Languages Courses

On this page:

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- **Course Descriptions**
- **To Modern Languages List**
- **Back to Course Index**

Faculty

Professors: Edward R. Haymes; **Professors Emeriti:** Bruce A. Beatie, Laura Martin, John M. Purcell, Anita Stoll; **Associate Professors:**
Tama Lea Engelking, Delia V. Galván, Annie Jouan-Westlund, Antonio Medina-Rivera, Diana Orendi, Philippa Brown Yin (Chairperson); **Assistant Professors:** Hebat El-Attar, Leilani Garcia-Turull, Stephen Gingerich, Abed Tayyara, Lee Wilberschied.

Course Descriptions

MLA courses include both culture courses taught in English and language courses in areas of expanding need in today's global culture. The culture courses may cross borders and time periods. The language courses provide both practical linguistic training in the written and spoken languages and an introduction to the cultures of these languages. Building a good resume for career travel or work overseas, or your interests in other languages and cultures that work well with another major are all reasons to study Portuguese, Russian, or Quechua.

All language courses have the following divisions and courses numbered from:

100-114 (200-214, etc.) concern the development of performance skills;

115-34 (215-234, etc.), the nature of language;

135-64 (235-264, etc.), culture and civilization;

165-89 (265-289, etc.), literature;

190-99 (290-299, etc.), independent and specialized courses

As performance skills develop through progression in the learning sequence, the skills are used increasingly to introduce students to subject matter in the areas of culture, linguistics, and literature.

All language skill courses require work outside of class time in the language laboratory. Students who are to some degree native speakers of a particular language or who have acquired a speaking ability in a particular language will generally not be permitted to enroll in 100-level courses for credit in that language.

English majors should talk with their English adviser for information on counting courses offered by the Department of Modern Languages toward their major.

Courses listed below cut across the boundaries of specific languages. For courses in specific languages, literatures, and civilizations, see the course listings under **Arabic**, **Chinese**, **French**, **German**, **Greek**, **Italian**, **Japanese**, **Latin**, and **Spanish**.

MLA 101 102 Modern Languages I, II (4-2-5).
Prerequisites: For MLA 101: None: For MLA 102 in a sequence: Completion of MLA 101 with a C or better or permission of instructor. Development of proficiency in speaking, understanding, reading, and writing a foreign language (such as Portuguese, Russian, Quechua) which are not regularly offered by the department. May be repeated for credit with a change of language. Lab fee.

MLA 115 Contemporary Western Cultures (3-0-3).
Introduction to two contemporary cultures, for example: France and Germany, or Spain and Italy. Taught in English. *Western Culture and Civilization*.

MLA 116 Contemporary Nonwestern Cultures (3-0-3). Introduction to two or more Nonwestern cultures, for example: Francophone and Hispanic Caribbean. Taught in English. *Nonwestern Culture and Civilization.*

MLA 140 240 - 340 - 440 Field Experience Abroad (1 to 6 Credits). Prerequisites: Permission of instructor, departmental approval. The amount of language preparation necessary to participate in any given field experience to be determined by the department and instructor; specially arranged field experience abroad providing intensive exposure to students' target countries and languages. May be preceded by a special preparatory course. Examples include supervised individual or group work-study experience in the target country followed by a period of travel; and supervised two- to six-week group travel for students interested in a language- or culture-oriented project in the target country. See semester course schedule and contact the department office for further information.

MLA 192 292 - 392 - 492 Special Topics: Study Abroad (1 to 6 Credits). Prerequisite: Permission of instructor. Study of a particular topic in a foreign language, literature, or civilization as part of the university's Study Abroad Program. May be repeated with change of topic.

MLA 196 296 - 396 - 496 Independent Study (1 to 4 Credits). Prerequisites: Student must have sophomore, junior, or senior standing. Proposed projects must be approved by a full-time department faculty member (who will serve as the project adviser) and the department chairman. Student-initiated supervised projects involving non-native languages or literatures. Examples include in-depth study of a particular writer, special readings in linguistics or significance of Hungarian culture in Cleveland politics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between individual students and instructor; title of the project will appear on the student's transcript; abbreviation of the course will reflect the language area or be designated MLA. May be repeated for credit with change of topic.

MLA 200 300-400 Practicum in Language (1 to 4 Credits). Prerequisites: Permission of instructor, departmental approval. Specially arranged projects or supervised experiences using non-native languages conducted in the university and in the community. Examples include special work in the Instructional Media Laboratory; participation in a foreign-language play; tutorial activity in a basic language skills course; a study or service project involving field work in one of the Cleveland ethnic communities. Projects arranged between individual students and instructors; title of the project will appear on the student's transcript; abbreviation of the course will reflect the language area or be designated MLA. May be repeated for credit. S/U only.

MLA 201 Words: An Introduction to Etymology (3-0-3). A study of the way English words came to have the meanings they do, with emphasis on the Greek and Latin roots of English words; increases both active and passive vocabulary and refines accuracy of

understanding and use of English. Especially useful for students in the sciences and in law. Classical and Medieval Studies; *Arts and Humanities*.

MLA 204 Nonwestern Literature (3-0-3).
Significant literary works representing cultures of Africa, Asia, Latin America, and the Caribbean. Includes such authors as Basho, Mo Yan, Mishima, Yosano, Rubén Darío, Borges, García Márquez, Vargas Llosa, the griot Kouyate, Maran, Achebe, and Soyinka. *Nonwestern Culture and Civilization*, *Arts and Humanities*.

MLA 230 330 Introduction to Mythology (3-0-3).
Introduction to mythology, with emphasis on classical mythology. Study of texts, criticism, and interpretation of the classical myths, usually contrasted with a more modern mythic work or tradition. Classical and Medieval Studies course.

MLA 243 343 Introduction to Urban Folklore (3-0-3).
An introduction to the subject matter and the methodology of folklore, with specific reference to the kinds of folklore prevalent in the Greater Cleveland area. Practice in field research methods.

MLA 260 Language, Society, and Culture (3-0-3).
Introduction to the study of linguistics and of language in its social and cultural contexts.

MLA 273 373 King Arthur in History, Legend and Literature (4-0-4). Development of the Arthurian legend from its historical roots in the sixth century, through the early-, high-, and late-middle ages; to the Arthurian revival in the 19th- and 20th-centuries, including versions of the legend on film. Focus of the course changes; may be repeated for credit with change of focus. Sometimes cross-listed with **ENF 259**. Classical and Medieval Studies course.

MLA 310 Structure of Specific Languages (1 to 4 credits).
Prerequisites: At least two courses in linguistics or written permission of instructor. Study of the grammatical structure of uncommon languages. Title varies according to language; past offerings have included Albanian, Armenian, Mayan, and Sanskrit. May be repeated for credit with a change of title. Linguistic Studies course.

MLA 325 Introduction to Linguistics (3-0-3).
Introduction to the scientific study of language; emphasis on languages other than English. Topics include principles of linguistic analysis, languages and culture, and linguistics in relation to other fields. Recommended for language majors. Linguistic Studies course.

MLA 332 Comparative Mythology (3-0-3).
A study of mythic texts in two or more cultural traditions. The course may consider both the common elements of these mythic traditions and/or the significance of their differences.

MLA 341 Languages and Cultures in Contact (3-0-3). *Effective Fall 2006, this course is replaced by **MLA 342**.* Exploration of relationships between language usage and cultural behavior. Central issues include connections between linguistic and cultural categories, social and institutional effects of language variation, consequences of linguistic and cultural change, language and social role, and role of language in forming social policy. Seminar format emphasizing skills of analysis, synthesis, and problem-solving. Cross-listed with **ANT 342**. Linguistic Studies course.

MLA 342 Languages in Contact (4-0-4). *Effective Fall 2006.* Exploration of relationships between language usage and cultural behavior. Central issues include connections between linguistic and cultural categories, social and institutional effects of language variation, consequences of linguistic and cultural change, language and social role, and role of language in forming social policy. Seminar format emphasizing skills of analysis, synthesis, and problem-solving. Cross-listed with **ANT 342** and **LIN 342**. Linguistic Studies course.

MLA 347 Maya Hieroglyphic Writing I (4-0-4).
Introduction to Classic Maya writing and texts from a linguistic and anthropological perspective. Students study the origins and functions of writing in Ancient Mesoamerica, examine the relationship of spoken languages to the script, and learn to decipher, analyze and interpret Maya hieroglyphic texts for information of general anthropological and linguistic interest such as dynastic history, social organization , ritual, cosmology and belief system.

MLA 416 Special Topics in Linguistics (1 to 6).
Prerequisite: Permission of instructor. Topics to be announced in semester course schedule. May be repeated for credit with change of topic. Linguistic Studies course.

MLA 447 Maya Hieroglyphic Writing II (4-0-4). Prerequisite: **MLA 347**, Maya Hieroglyphic Writing I. Building on the basic knowledge and skills learned in MLA 347, students will decipher increasingly more challenging texts in order to reach a more sophisticated understanding of Maya hieroglyphic decipherment, and its indications for understanding and revising history of Classic Maya civilizations.

MLA 493 Special Topics in Culture and Civilization (1 to 6). Topics to be announced in semester course schedule. May be repeated for credit with change of topic.

Music Courses

On this page:

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Faculty

Professors: Andrew Rindfleisch, Howie Smith; **Professors Emeriti:** J. Heywood Alexander, Albert Blaser, Julius Drossin, Judith Eckelmeyer, John A. Flower, Edwin London, William R. Martin; **Associate Professors:** Betsy Burleigh, Gregory D'Alessio, Rita Klinger, Victor Liva, Howard Meeker, Eric Ziolek (Chairperson); **Associate Professor Emeritus:** Ernest Hisey; **Assistant Professors:** Birch Browning, Angelin Chang, Elizabeth Unis Chesko, Catherine Cole; **Applied Music Faculty:** Gary Adams (tuba), George Bachmann (guitar), Daniel Barber (piano), Matthew Bassett (percussion), David Brockett (horn), Charles Carleton (string bass), Jocelyn Chang (harp), Charles Couch (trumpet), Mark DeMio (bassoon) William Dempsey (voice), Bryan Dumm (cello), Molly Fung Dumm (violin), Erich Eichhorn (violin), Robert Fraser (guitar), Tom Freer (percussion), Sean Gabriel (flute), Louis Gangale (clarinet), Michelle George (viola), Hanne-berit Hahnemann (violin), Geoffrey Hardcastle (trumpet), David Alan Harrell (cello), Daniel Hathaway (organ), Christine Hill (piano), Theodore Johnson (clarinet), Nicole Keller (organ), Arthur Klima (viola), David McGuire (oboe), Robert McKee (jazz drums), Jeanne Meszoros (piano), Eileen Moore (voice), Noriko Paukert (voice), Maria Pla (piano), George Shernit (saxophone), Margaret Scharf (organ), Margarita Shevchenko (piano), James Taylor (trombone), Rock Wehrmann (jazz piano), **Lecturers:**
Melanie Blaser, Leo Coach, Paul Ferguson, Alvin Fulton, Eric Gould, Charles Smith, Stephen Stanziano.

Course Descriptions

See also Applied Music Courses (Performance)

MUS 101 University Chorus (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Open to university community at large, the University Chorus sings a wide variety of repertoire, including multicultural works as well as those from the European tradition. Basic music reading skills pertaining to choral singing will be developed. May be repeated for credit.

MUS 102 Band/ Wind Ensemble (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Repertoire selected according to nature of each performance, with emphasis on music written specifically for wind band. Chamber Winds (one player per part) is listed as a different section number under this course when offered. May be repeated for credit.

MUS 103 Collegium Musicum (0-4-1).
Prerequisite: Membership by audition. Small ensemble of singers and instrumentalists for the study and performance of music of all eras, with emphasis on works written prior to 1750. May be repeated and may be taken with or without credit.

MUS 104 University Orchestra (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Orchestral repertoire from the various stylistic periods prepared and performed in three concerts per semester. May be repeated for credit.

MUS 105 CSU Chorale (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Select ensemble of approximately 30 voices chosen by audition from the student body; provides advanced challenge and opportunity to those with singing experience; music of various genres and stylistic eras. May be repeated for credit.

MUS 106 Chamber Ensembles (0-2-1).
For those participating in student recitals. Ensembles of one person per part, working under faculty supervision. Chamber Ensemble credit cannot be earned by student receiving recital credit for the same project. May be repeated for credit, but credit awarded only once for any particular project.

MUS 107 Jazz Ensemble (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Provides experience in reading and performing jazz band arrangements and compositions. May be repeated for credit.

MUS 108 Opera Theater Workshop (0-4-1).
Prerequisite: Open to any university student with permission of instructor at first rehearsal. Practical experience in performance and production of opera scenes includes theatrical improvisation and stage movement. May be repeated for credit.

MUS 109 New Music Ensemble (0-4-1).
Prerequisite: Permission of instructor. A performing chamber ensemble dedicated to music literature composed since 1950 with emphasis on more recent literature. May be repeated for credit.

MUS 110 Collaborative Piano and Accompanying (3-0-3). Instruction in the technique and art of musical collaboration on the piano.

MUS 111 The Enjoyment of Music (4-0-4).
An introductory course in classical music, principally through aural understanding. Live and recorded listening experiences. *Arts and Humanities*, *Western Culture and Civilization.*

MUS 112 Macromusic (2-0-2).
Prerequisite: Open only to music majors or by permission of instructor. Introduction to music technology; basic applications of computing, MIDI (Musical Instrument Digital Interface), synthesizers, sequencing, music notation, digital audio, and the Internet to

the study of music. Assigned studio time.

MUS 113 Writing about Music (2-0-2). Prerequisites: **ENG 101** and music major/ minor status only. Builds on skills of English 101 while developing basic research skills, information literacy and preparation of writing assignments, specifically short essays such as a set of recital program notes, a historical or analytical essay, and an extended research paper on a musical subject. *English: Equivalent to **ENG 102***.

MUS 116 Collaborative Piano and Accompanying (3-0-3). Instruction in the technique and art of musical collaboration on the piano.

MUS 122 Materials of Music (3-0-3).
Open to any university student. Survey course with drills and creative exercises in reading and writing basic pitch and rhythmic materials of music.

MUS 151 Jazz Survey (4-0-4).
An introductory course in jazz with a broad overview of its performers, composers, and styles. Live and recorded listening experiences. *Arts and Humanities*.

MUS 161 Roots of Rock and Soul (4-0-4).
Survey of the roots and development of rhythm and blues, rock and roll, and soul music with an examination of social causes and effects, commonalities to art music and role in culture in the United States. *Arts and Humanities*.

MUS 205 Orientation to Music Education (1-1-1).
Students will examine music teaching as a profession—the roles and responsibilities of general, choral and instrumental music educators at the elementary and secondary levels. Students will develop a teaching philosophy, examining why they want to become music educators. Indludes lectures and discussions on campus and observations in schools.

MUS 218 Composition Studies I (3-0-3).
Prerequisite: Permission of instructor. Study sessions with composition faculty. Independent projects explore large and small forms, compositional techniques, and modes of expression for various media. May be repeated for credit. A weekly composition forum is part of this course.

MUS 231 Harmony and Form I (3-0-3). Prerequisite: For music majors. *Effective Fall 2006: Prerequisite: none.* Harmonic, rhythmic and formal practices in tonal music of the common practice period. Correlated creative work and analysis.

MUS 232 Harmony and Form II (3-0-3). Prerequisite: **MUS 231** or equivalent. Harmonic, rhythmic, and formal procedures in music from J.S. Bach through the Classic Era. Correlated creative work and analysis.

MUS 233 Harmony and Form III (3-0-3). Prerequisite: **MUS 232** or equivalent. Harmonic, rhythmic, and formal procedures in music from Beethoven through the chromatic music of the late 19th century. Correlated creative work and analysis.

MUS 234 Harmony and Form IV (3-0-3). Prerequisite: **MUS 233** or equivalent. Harmonic, rhythmic, and formal procedures in music from Impressionism through the 20th century. Correlated creative work and analysis.

MUS 241 Musicianship I (0-3-1). Corequisite: **MUS 231**. Course is designed to develop basic skills in sightreading, sightsinging, keyboard, improvisation, basic conducting, and musical perception.

MUS 242 Musicianship II (0-3-1). Prerequisite: **MUS 241** or equivalent. Continuation of **MUS 241** with more advanced materials for sightsinging, improvisation, keyboard, score reading and musical perception.

MUS 243 Musicianship III (0-3-1). Prerequisite: **MUS 242** or equivalent. Advanced skills course including sightsinging, improvisation, keyboard, wholistic listening, and musical perception.

MUS 244 Musicianship IV (0-3-1). Prerequisite: **MUS 243**
or equivalent. Advanced materials for sightsinging, rhythmic performance, improvisation, holistic listening, and musical perception dealing mainly with features of 20th-century concert music and jazz.

MUS 260H The Performing Arts in Cleveland (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program. A course designed to examine original sources for works of art that are presented during the regular seasonal offerings of performing arts organizations in Cleveland and on the Cleveland State University campus. Students will attend concerts, plays, dance recitals, ballet, musical theater, and opera. In preparation for each event, the historical, social, and aesthetic context of each work will be studied along with related topics that enhance the appreciation of the event. *Arts and Humanities*.

MUS 261H The Evolution of Western Popular Music (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. This course will explore the elements of current popular music and the way they have developed over throughout history. A central issue will be tracing the development of the expression of individual experience as the main concern of music both as an art and as a commercial product. The class will draw on literature, art, and philosophy as well as writings specifically on music in the exploration of these issues. The course will begin with students making a critical evaluation of the musical culture in which they have grown up. From that evaluation we will derive the key expressive elements and musical genres that will serve as the focus of the class. *Arts and Humanities*.

MUS 301 Music Fundamentals and Methods for the Classroom Teacher (4-0-4). Prerequisite: For College of Education majors only. Introduces the fundamentals of music appropriate for early childhood and slementary age school children through singing, movement, listening and performance on recorder, keyboard, and classroom instruments. Includes methods and materials usede by classroom teachers to incorporate and integrate music into the curriculum.

MUS 310 The Business of Music (3-0-3).
Prerequisite: Open to any university student with permission of instructor. A team-taught overview of business practices and how they affect musicians. Topics include auditions, promotional materials, recording, concert production, contracts, copyrights, management, unions, taxes, and grant writing.

MUS 341 Counterpoint (3-0-3). Prerequisites: **MUS 234** and **244** or equivalents. Modal and tonal counterpoint in two and three voices; composition of melodies, subjects, and examination of contrapuntal devices; invertible counterpoint; binary forms, inventions and fugue.

MUS 351 Teaching String Instruments (1-2-2). Prerequisites: **MUS 205**, **MUS 232**, **MUS 242**. Techniques of playing and teaching violin, viola, cello, and contrabass with an emphasis upon beginning instruction and methods and materials for group

lessons. Laboratory class for music-education majors as preparation for teaching school instrumental music.

MUS 352 Teaching Woodwind Instruments (1-2-2). Prerequisites: **MUS 205**, **MUS 232**, **MUS 242**. Techniques of playing and teaching flute, oboe, clarinet, saxophone, and bassoon, with an emphasis upon beginning instruction and methods and materials for group lessons. Laboratory class for music education majors as preparation for teaching school instrumental music.

MUS 353 Teaching Brass Instruments (1-2-2). Prerequisites: **MUS 205**, **MUS 232**, **MUS 242**. Techniques of playing and teaching trumpet, trombone, horn, euphonium, and tuba with an emphasis upon beginning instruction and methods and materials for group lessons. Laboratory class for music education majors as preparation for teaching school instrumental music.

MUS 354 Teaching Percussion Instruments (1-2-2). Prerequisites: **MUS 205**, **MUS 232**, **MUS 242**. Techniques of playing and teaching timpani, snare drum, bass drum, xylophone, cymbals, Afro-Indio-Latin drums, and jazz drumset with an emphasis upon beginning instruction and methods and materials for group lessons. Laboratory class for music education majors as preparation for teaching school instrumental music.

MUS 355 Teaching Vocal/ Choral Music (1-2-2). Prerequisites: **MUS 234**, **MUS 244**, **MUS 461**. Techniques for learning and teaching proper use of the singing voice in elementary- and secondary-school music. Emphasis upon methods and materials for K-12 singers in general music classes and choral ensembles. Laboratory class for music education majors as preparation for teaching school vocal/choral music.

MUS 356 Diction (3-0-3).
Prerequisite: For performance majors in voice and others with permission of instructor. Use of the International Phonetic Alphabet as a means to teach proper pronunciation for singers; basic concepts for the formation and use of vowels and consonants within a vocal line; application of IPA symbols to sounds in French, German and Italian; basic rules for singing in English.

MUS 361 Voice Class (2-0-2).
Prerequisite: Not for voice majors. Assists students in the basic elements and techniques of vocal production for singing.

MUS 362 Guitar Class (2-2-2)
A studio/ lab course for music therapy majors to learn basics of guitar playing. Students learn to read tablature and traditional notation, to play chords, to transpose, to play accompaniment for songs, and basics of playing with a flat pick. Open to non-majors depending upon availability of space and with permission of instructor.

MUS 381 Jazz Theory and Improvisation I (2-0-2). Prerequisite: **MUS 122** or permission of instructor. Effective Fall 2006: Prerequisite: Music major status or permission of instructor. Theory and practice of spontaneous composition/performance in a jazz style, with emphasis on the 12-bar blues form, modal materials, and melodic derivatives of harmonic progressions.

MUS 382 Jazz Theory and Improvisation II (2-0-2). Prerequisite: **MUS 381** or permission of instructor. Further exploration of melodic-harmonic inter-relation, harmonic substitution, modal materials, and rhythmic styles. Advanced harmonic and rhythmic concepts.

MUS 390 Introduction to Music Therapy (2-0-2)
Prerequisite: music therapy majors only. Provides an overview of the profession including terminology, history and practical application of music therapy for various client populations. Assessment of personal qualities to become a music therapist is an ongoing process of the class. Observations of music therapists and those in related fields are required in addition to class work. Taught at Baldwin-Wallace.

MUS 391 Recreational Music: Programming and Leadership (2-0-2) Prerequisite: music therapy majors only. Development of a repertoire of activities to provide a foundation for initial field work experiences. Adaptation of activities and instruments, basic assessment of client interests and needs, and evaluation of observations are required. Taught at Baldwin-Wallace.

MUS 392 Music Therapy Practicum (0-0-1)
Prerequisite: music therapy majors only. Experiences working in a community agency, each experience including a musical and behavioral assessment of the group or individual, the development and implementation of ongoing treatment procedures and evaluation. May be repeated for credit; a minimum of three practica required. Assignments made by director of Cleveland Music Therapy Consortium.

MUS 411 Music History I (3-0-3). Prerequisites: **MUS 112**, **MUS 113**, **MUS 234** and **MUS 244** or permission of instructor. Survey of the history of Western music from Antiquity to 1750 through examination of stylistic characteristics and literature from chronological eras, as well as individual composers' lives and the culture of their times. *Western Culture and Civilization*.

MUS 412 Music History II (3-0-3). Prerequisites: **MUS 112**, **MUS 113**, **MUS 234** and **MUS 244** or permission of instructor. Survey of the history of Western music from 1750 to the present through examination of stylistic characteristics and literature from chronological eras, as well as individual composers' lives and the culture of their times. *Western Culture and Civilization*.

MUS 414 Ethnomusicology (3-0-3).
Prerequisite: Music major status or permission of instructor. The study of music outside the European art tradition. *Nonwestern Culture and Civilization*.

MUS 415 World Music Studies (3-0-3). Variable topics include music from specifically selected non-Western world cultures. *Nonwestern Culture and Civilization*.

MUS 418 Composition Studies II (3-0-3).
Prerequisite: Junior standing or permission of instructor. Advanced study sessions with composition faculty. Independent projects explore large and small forms, compositional techniques and modes of expression for various media. Recital preparation for undergraduate exit project in composition. May be repeated for credit. A weekly composition forum is part of this course.

MUS 420 Music Therapy in Psychiatry and Rehabilitation (3-0-3) Prerequisite: music therapy majors only. Clinical methods as they relate to working with psychiatric, geriatric, medical, neurologically impaired, and addicted clients. Taught at Baldwin-Wallace.

MUS 421 Music Therapy with the Developmentally Disabled (3-0-3) Prerequisite: music therapy majors only. Clinical practice as it relates to working with mentally retarded, autistic, sensory-impaired, physically challenged, and learning-disabled clients. Offered alternate years. Taught at Baldwin-Wallace.

MUS 422 Psychology of Music I (2-0-2)
Prerequisite: music therapy majors only. An overview of current research in music learning, music preference, acoustics, influence of music on listener behavior, and measurements of music achievement and performance. Taught at Baldwin-Wallace.

MUS 423 Psychology of Music II (0-2-2) Prerequisites: **MUS 422**; music therapy majors only. Practical exposure to research methods. Independent research projects incorporating the most common methods of data analysis and test design required. Taught at Baldwin-Wallace.

MUS 424 Program Development and Administration in Music Therapy (2-0-2) Prerequisite: music therapy majors only. Focus on program planning, scheduling, budgeting, and public relations strategies. Procedures of documentation, standards of practice, codes of ethics, and legislative issues relating to the practice of music therapy included. Offered in alternate years. Taught at Baldwin-Wallace.

MUS 425 Internship (16 credits)
Six months of full-time clinical experience in an AMTA approved facility. Documentation and special research projects included according to the clinical internship training plan. Must be completed within two years following the conclusion of course work. Music therapy majors only.

MUS 427 Computer Music I (3-0-3). Prerequisite: **MUS 112** or permission of instructor. Introduction to creating music with the use of computers. Topics include synthesis, midi sequencing, sampling, notation, and aesthetics. Also includes an overview of the repertoire of electronic and electro-acoustic music. Assigned studio time for individual composition projects.

MUS 428 Computer Music II (3-0-3). Prerequisite: **MUS 427** or permission of instructor. Advanced applications in computer music. Topics include digital audio, digital signal processing, computer synthesis, and recording techniques. Assigned studio time for individual composition projects.

MUS 441 History of Jazz (3-0-3). Prerequisite: **MUS 151** or permission of instructor. Development of jazz, the various influences that shaped its direction, and its influence on other styles of music. *Western Culture and Civilization*.

MUS 443 Music Literacy and Learning (1-2-2). Prerequisites: **MUS 444**, **EDB 305**. Understanding the music-reading process through the association of verbal sounds/ syllables and symbols of notation. Includes experiences in informal assessment of reading proficiency and in the teaching of pattern recognition. A field component is required.

MUS 444 Elementary Music Curriculum and Methods (2-2-3). Prerequisites: **MUS 205**, **MUS 234**, **MUS 244**. Corequisite: **MUS 454**. Lesson planning, curricular materials, and instructional strategies for preschool and elementary-school classroom music. Includes curriculum design, principles of assessment, and issues of classroom management. A field component required.

MUS 445 Secondary Music Curriculum and Methods (2-2-3). Prerequisite: **MUS 444**. Corequisites: **MUS 446**, **MUS 455**. Lesson planning, curricular materials, instructional and rehearsal strategies for middle-school and high-school music. Includes curriculum design, principles of assessment, and issues of classroom management for both general music and school ensembles. A field component is required.

MUS 446 Instrumental Methods (2-2-3). Prerequisites: **MUS 444**, **MUS 461** plus completion or current enrollment in **MUS 445**, **MUS 351**, **352**, **353** or **354**. Development of instructional methods for elementary, middle- and high-school instrumental ensembles, including specific strategies for concert, jazz and marching bands, and string- and full-orchestras. Strategies for recruiting and starting beginners, selecting or creating appropriate materials, and refinement of rehearsal skills. Includes an in-class lab component with peer ensemble performing on secondary instruments.
Effective Fall 2006: Prerequisites: **MUS 351**, **MUS 352**, **MUS 353**, **MUS 354**, **MUS 461**. Corequisites: **MUS 445**, **MUS 455**. Development of instructional methods for elementary, middle- and high-school instrumental ensembles, including specific strategies for concert, jazz and marching bands, and string-and full-orchestras. Strategies for recruiting and starting beginners, selecting or creating appropriate materials, and refinement of rehearsal skills. The course includes an in-class lab component during which students will practice rehearsing a peer ensemble. Students will also have an opportunity to continue developing performance skills on secondary instruments.

MUS 451 Orchestration (3-0-3). Prerequisite: **MUS 234**
or permission of instructor. Study of characteristics and capabilities of orchestral instruments; writing for various instrumental combinations; correlated analysis of symphonic forms and orchestral techniques.

MUS 452 Career in Composition (3-0-3).
The course is designed to study aspects of how to build and maintain a career as a composer in a competitive music industry. Defining and researching the many resources available to composers within this industry will be coupled with detailed assignments and projects focusing on proposal composition and the vital understanding of music publishing, commercial recording, commissioning, contracts and publicity.

MUS 454 Elementary Music Field Experience (1-2-1). Prerequisites: **MUS 205**, completion of Music Education Gateway Exam, and permission of instructor. Corequisite: **MUS 444**. Guided field experience under the supervision of a music specialist in the elementary school.

MUS 455 Secondary Music Field Experience (1-4-1). Prerequisites: **MUS 205**, and permission of instructor, completion of Music Education Gateway. Corequisites: **MUS 445**, **MUS 446**. Guided field experience under the supervision of a music specialist in the secondary school.

MUS 461 Conducting School Ensembles (3-0-3).
Prerequisites: MUS 234 and 244. Development of effective conducting and rehearsal techniques common to instrumental and vocal ensembles. May culminate in a rehearsal reading with the University Band or Chorus depending on the student's focus. Team taught.

MUS 475 Workshop (variable credit).
Special presentations offered by faculty or visiting specialists for professional development. Carries undergraduate or graduate credit. May be repeated with change of topic.

MUS 476 Extended Workshop (variable credit).
Special presentations offered by faculty or visiting specialists for professional development. Carries undergraduate or graduate credit. May be repeated with change of topic. These workshops extend beyond the normal semester. Students will receive a "T" grade at the end of the semester and a grade for credit upon completion of the workshop.

MUS 481 Half Recital (0-0-1).
Prerequisite: Permission of instructor. Thirty-minute recital demonstrating appropriate level of competency. Required of all music majors.

MUS 482 Full Recital (0-0-2).
Prerequisite: Permission of instructor. Sixty-minute recital demonstration appropriate level of competency. Required of all applied music majors.

MUS 485 Composition Recital (0-0-2).
Prerequisite: Permission of instructor. A recital of works for various media representing the creative accomplishments of composition study.

MUS 493 Special Topics (variable credit).
Prerequisite: Permission of instructor. Topics designed by faculty to be announced in semester schedule. May be repeated for credit with change of topic.

MUS 496 Independent Study (credit as arranged).
Prerequisite: Permission of instructor. Faculty-supervised independent study in areas of individual interest.

MUS 498 Senior Project (0-0-3).
Prerequisite: To be elected by candidates pursuing the B.A. degree with a major in music at least one semester prior to graduation. The project is a focal point bringing together the various strands of the undergraduate's career in a meaningful way. It represents individual work done under committee guidance, resulting in either a formal research paper, public presentation, or both.

Applied Music Courses

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Faculty

Applied Music Faculty:
Gary Adams (tuba), George Bachmann (guitar), Daniel Barber (piano), Matthew Bassett (percussion), David Brockett (horn), Charles Carleton (string bass), Jocelyn Chang (harp), Charles Couch (trumpet), Mark DeMio (bassoon) William Dempsey (voice), Bryan Dumm (cello), Molly Fung Dumm (violin), Erich Eichhorn (violin), Robert Fraser (guitar), Tom Freer (percussion), Sean Gabriel (flute), Louis Gangale (clarinet), Michelle George (viola), Hanne-berit Hahnemann (violin), Geoffrey Hardcastle (trumpet), David Alan Harrell (cello), Daniel Hathaway (organ), Christine Hill (piano), Theodore Johnson (clarinet), Nicole Keller (organ), Arthur Klima (viola), David McGuire (oboe), Robert McKee (jazz drums), Jeanne Meszoros (piano), Eileen Moore (voice), Noriko Paukert (voice), Maria Pla (piano), George Shernit (saxophone), Margaret Scharf (organ), Margarita Shevchenko (piano), James Taylor (trombone), Rock Wehrmann (jazz piano).

Course Descriptions

(See also MUS courses)

MUA 101 Class Piano (0-2-1).
Beginning piano skills and keyboard orientation for the nonmusic major. Designed for students with no previous piano experience.

MUA 102 Keyboard Skills I (0-4-2).
Prerequisite: Open to music majors only. Intensive training in the application of manual keyboard skills toward the production of simple accompaniments. Drills consist of primary triads in major and minor keys, use of chord inversions, and common finger pattern technique.

MUA 103 Keyboard Skills II (0-4-2). Prerequisite: Grade of C or better in **MUA 102**. Intensive training in the application of manual keyboard skills toward the production of accompaniments in common figurations. Includes transposition, improvisation, and harmonizing melodies. Drills consist of primary triads in major and minor keys, secondary dominants, triads of the 2nd, 3rd and 6th degrees in major mode, common harmonic formulas, and interpretation of chord symbols.

Private lessons

MUA 111 Section 1: Piano (1 credit)
Section 2: Harpsichord (1 credit)

MUA 112 Section I: Piano (2 credits)
Section 2: Harpsichord (2 credits)

MUA 121 Voice (1 credit)

MUA 122 Voice (2 credits)

MUA 131 Organ (1 credit)

MUA 132 Organ (2 credits)

MUA 141 Strings (1 credit)
Classical Guitar (1 credit)
Electric Guitar (1 credit)

MUA 142 Strings (2 credits)
Classical Guitar (2 credits)
Electric Guitar (2 credits)

MUA 151 Woodwinds (1 credit)

MUA 152 Woodwinds (2 credits)

MUA 161 Brass (1 credit)

MUA 162 Brass (2 credits)

MUA 171 Percussion (1 credit)

MUA 172 Percussion (2 credits)

MUA 181 Harp (1 credit)

MUA 182 Harp (2 credits)

MUA 311 Section 1: Piano (1 credit)
Section 2: Harpsichord (1 credit)

MUA 312 Section I: Piano (2 credits)
Section 2: Harpsichord (2 credits)

MUA 321 Voice (1 credit)

MUA 322 Voice (2 credits)

MUA 331 Organ (1 credit)

MUA 332 Organ (2 credits)

MUA 341 Strings (1 credit)

Classical Guitar (1 credit)
Electric Guitar (1 credit)

MUA 342 Strings (2 credits)
Classical Guitar (2 credits)
Electric Guitar (2 credits)

MUA 351 Woodwinds (1 credit)

MUA 352 Woodwinds (2 credits)

MUA 361 Brass (1 credit)

MUA 362 Brass (2 credits)

MUA 371 Percussion (1 credit)

MUA 372 Percussion (2 credits)

MUA 381 Harp (1 credit)

MUA 382 Harp (2 credits)

Baccalaureate Nursing Program Courses

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Faculty

Professor: Noreen Frisch (Director), Valerie George; **Associate Professors:** Amy Govoni, Andrea Jennings-Sanders, Cheryl McCahon, Sharon Wing; **Assistant Professors:** Cheryl Delgado, Sharon Radzyminski, Marilyn Weitzel; **Instructors:** Cindy Farina, Joan Niederriter, Linda Wolf; **Clinical Assistant Professor:** Dorothy Hamilton, Vicki Johnson, Michelle Kwiatkowski, Meg Toukonen; **Term Faculty:** Barbara Cavender, Pamela Ngangana, Karen Pace, Marjorie Placek, Agnes Tytko.

Course Descriptions

NUR 125 Health and Wellness (2-0-2). Using a holistic approach, selected health behaviors which promote high-level wellness will be explored. Students will have an opportunity to clarify their own health values and assess their present health behaviors and life styles in order to make decisions relative to future health behaviors and lifestyles. Elective.

NUR 200 Stress: A Framework for Professional Nursing (4-0-4). Prerequisites: admission to the Nursing major. Introduces the student to the need for theory development in nursing, selected nursing models, and the philosophy and conceptual framework of the Department of Nursing. Attributes and values that support the professional nurse are explored. Concepts related to community-based practice are introduced. Emphasis is placed on the acquisition of knowledge and skills for facilitative communication and the appreciation of cultural diversity. *Writing*.

NUR 203 Professional Role Development I (1-0-1). Prerequisites: *Must be participating in the CSU – CCF Experiential Learning Program.* Students will examine the roles, responsibilities and interactions of health care team members in a modern, acute care clinical unit in relation to the work and goals of that unit. Students will meet in a small group with instructor to discuss professional issues such as nursing's contributions to care, organization and management of a hospital unit, hospital culture, nursing cultures and pace of work. Each student will develop own objectives for personal professional growth.

NUR 215 Strategies for Nursing Practice (4-0-2). Half-semester course. Prerequisites: **NUR 220**, **NUR 221**. Introduces concepts, principles, and theories of nursing practice in relation to levels of preventive care. Includes interpersonal and psychomotor skills as well as the use of the nursing process. (**NUR 216** must be taken concurrently; **NUR 200** and **NUR 219** must be taken concurrently unless previously completed.)

NUR 216 Strategies for Nursing Practice - Clinical (0-12-3). Half-semester course. Prerequisites: **NUR 220**, **NUR 221**. Applies the nursing process and principles from the natural, behavioral, and nursing sciences to provide direct care to adult clients within structured settings who are experiencing health problems as a result of stressors. Psychomotor skills are learned and practiced in a skills laboratory prior to performance in a community-based setting. (**NUR 215** must be taken concurrently.)

NUR 218 Nursing Pharmacology (2-0-2). Introduces the student to various classifications of drugs used in the care of clients experiencing stressors. Emphasis on nursing implications.

NUR 219 Pathophysiology for Nurses. (2-0-2). Prerequisite: Admission to nursing majors or permission of the instructor. This course focuses on the exploration of various physiologic stressors by which disease occurs, the impact of the individual's GRR on the response of the body and the effects of the disease on normal physiology. Each disease entity will be examined by definition, epidemiology, etiology, diagnostic data and clinical manifestation. The clinical concepts of disease can be utilized by the professional nurse in the application of the nursing process in all settings.

NUR 220 Health Assessment (4-0-2). Half-semester course. Prerequisite: Admission to the Nursing major. Designed to teach the student knowledge and skills to assess the health status of an individual. Content related to the use of techniques of inspection, palpation, percussion, and auscultation. (**NUR 221** must be taken concurrently.)

NUR 221 Health Assessment - Lab (0-4-1). Half-semester course. Prerequisite: Admission to the Nursing major. Provides supervised laboratory practice to develop health-appraisal skills. A comprehensive assessment tool based on the stress framework is used. (**NUR 220** must be taken concurrently.)

NUR 222 Tertiary Preventive Strategies for the Elderly Experiencing Stress (2-0-2). Prerequisites: **NUR 200**, **NUR 215**, **NUR 216**, **NUR 219**, **NUR 220**, **NUR 221**. Focuses on tertiary preventive care of the elderly who have diseases of adaptation. Theories/concepts of aging, long-term care and rehabilitation are presented. Selected chronic health problems are discussed. (**NUR 225** and **NUR 226** must be taken concurrently.)

NUR 225 Tertiary Preventive Strategies for Adults Experiencing Stress (2-0-2). Prerequisites: **NUR 215**, **NUR 216**, **NUR 219**, **NUR 200**, **NUR 220**, **NUR 221**. Focuses on care of adults who have diseases of adaptation. Theories/concepts of chronic disease and rehabilitation are presented. Emphasis is on health problems related to immobility. (**NUR 222** and **NUR 226** must be taken concurrently.)

NUR 226 Tertiary Preventive Strategies - Clinical (0-12-6). Prerequisites: **NUR 215**, **NUR 216**, **NUR 219**, **NUR 200**, **NUR 220**, **NUR 221**. Focuses on the use of the nursing process in structured settings to plan care for patients from young adulthood through old age who have diseases of adaptation. Emphasis is on developing the student's ability to provide tertiary preventive care. Psychomotor skills are learned and practiced in a skills laboratory prior to performance in a community-based setting. (**NUR 225** and **NUR 226** must be taken concurrently.)

NUR 250 Health Problems of African Americans and Other Minorities (4-0-4). Explores health problems that are prevalent among African-Americans and other minorities. It is assumed that being African-American predisposes persons to health problems that increase the risk of disease or disability. Specific lifestyle and socio-cultural issues that influence health, access to health care and use of health services will be addressed. Students will be introduced to specific strategies for assessing the health care needs of minority individuals, families and communities. Elective. *Human Diversity*.

NUR 300 Nursing Leadership and Management (2-0-2). Prerequisites: Junior standing in Nursing. Focuses on leadership and management theories and concepts as they relate to the practice of nursing and the delivery of care in a variety of community-based settings. Emphasizes the use of change theory and quality assurance concepts. Approaches to developing leader/change agent and consultant/collaborator roles are explored. (**NUR 310** must be taken concurrently unless previously completed.) *Writing*.

NUR 303 Professional Role Development II (1-0-1). Prerequisites: *Must be participating in the CSU – CCF Experiential Learning Program.*

Students will examine the role of nursing personnel providing direct and supervisory care. Students will study the job descriptions and use personal observation to evaluate practice. Issues of delegation, scope of practice, coordination of care, and functioning of a nursing unit will be emphasized. Each student will develop own objectives for personal professional growth.

NUR 305 Secondary Preventive Strategies for Adults Experiencing Stress (4-0-2). Half-semester course. Prerequisite: Junior standing in the Nursing major. Focuses on care of patients from young adulthood through old age who are experiencing health problems as a result of stressors. Theories and concepts related to care of adults in acute-care settings are presented. (**NUR 306** must be taken concurrently.)

NUR 306 Secondary Preventive Strategies for Adults Experiencing Stress - Clinical (0-12-3). Half semester course. Prerequisite: Junior standing in the Nursing major. Focuses on the use of the nursing process in acute care settings to plan care for patients from young adulthood who have acute health problems as a result of stressors. Emphasis is on developing the student's ability to provide secondary preventive care. Psychomotor skills are learned in a skills laboratory prior to performance in a community-based setting. (**NUR 305** must be taken concurrently.)

NUR 310 Nursing Research (2-0-2). Prerequisites: one of the following statistics courses: **ANT 305**, **COM 303**, **PSY 311** or **SOC 354**; and either **NUR 200** or **NUR 340**
or permission of chairperson. Introduces the research process and the contributions of research to the improvement of nursing practice. Focuses on the critical analysis and interpretation of research reports and the development of strategies for implementation of research findings. (Must be completed for senior standing in the major.) *Writing*.

NUR 312 Secondary Preventive Strategies for Adults Experiencing Psychosocial Stress (4-0-2). Half-semester course. Prerequisite: Junior standing in the Nursing major or permission of the chairperson. Focuses on the care of adults who have health problems related to psychosocial stressors. Theories and concepts related to therapeutic nursing-intervention strategies with individuals and groups are presented. (**NUR 313** must be taken concurrently.)

NUR 313 Secondary Preventive Strategies for Adults Experiencing Psychosocial Stress - Clinical (0-12-3). Half-semester course. Prerequisite: Junior standing in the Nursing major or permission of chairperson. Focuses on the use of the nursing process to design therapeutic nursing interventions for clients experiencing psychosocial stressors. Emphasis is on the development of the therapeutic self which is used with individuals and groups in a variety of community-based settings to enhance the communication process and facilitate intervention strategies of a psychosocial nature. (**NUR 312** must be taken concurrently.)

NUR 325 Secondary Preventive Strategies for Children Experiencing Stress (4-0-2). Half-semester course. Prerequisites: **NUR 305**, **NUR 306**, **NUR 312**, **NUR 313**. Focuses on the care of children who are experiencing a variety of stressors, stress, and diseases of adaption. Theories, concepts, and principles related to the care of children and their families are presented. (**NUR 326** must be taken concurrently.)

NUR 326 Secondary Preventive Strategies for Children Experiencing Stress - Clinical (0-12-3). Half-semester course. Prerequisites: **NUR 305**, **NUR 306**, **NUR 312**, **NUR 313**, or permission of the chairperson. Focuses on the use of the nursing process to provide secondary preventive care in a variety of community-based settings to children experiencing health problems as a result of stressors. The impact of illness/disease on the development of children from infancy through adolescence will be evaluated. Psychomotor skills are learned and practiced in a skills laboratory prior to performance in a community-based setting. (**NUR 325** must be taken concurrently.)

NUR 340 Stress: A Framework for Professional Nursing (4-0-4). Prerequisite: Admission to the Nursing major. (Open to R.N. students only.) Introduces the student to the need for theory development in nursing, selected nursing models, and the philosophy and conceptual framework of the Department of Nursing. Attitudes and values that support the professional nurse are explored. Emphasis is placed on the acquisition of knowledge and skills for facilitative communication and the appreciation of cultural diversity. Concepts related to community-based practice and the nursing process are introduced. *Writing*.

NUR 343 Health Assessment (2-0-2). Prerequisites: Admission to Nursing major or permission of chairperson. (Open to R.N. students only.) Designed to teach the student knowledge and skills to assess the health status of an individual. Content related to the use of the techniques of inspection, palpation, percussion, and auscultation. (**NUR 344** must be taken concurrently.)

NUR 344 Health Assessment - Lab (0-3-1). Prerequisites: Admission to Nursing major or permission of chairperson. (Open to R.N. students only.) Provides supervised laboratory practice to develop health-appraisal skills. A comprehensive assessment tool based on the stress framework is used. (**NUR 343** must be taken concurrently.)

NUR 345 Computers and Health Care (1-1-2). Introduces student to use of personal computer, computer concepts, and information systems. Students will explore ways in which computers have impacted the delivery of health care. Students will learn to use computers for word processing, conducting library searches, and use the World Wide Web to locate health-care information to improve nursing practice.

NUR 350 Leadership and Management (4-0-4). Prerequisites: **NUR 340**. (Open to R.N. students only.) Focuses on leadership and management theories and concepts as they relate to the practice of nursing and the delivery of care in a variety of community-based settings. Emphasizes the use of change theory and quality assurance concepts. Approaches to developing leader/change agent and consultant/collaborator roles are explored. *Writing*.

NUR 360 Nursing Research (2-0-2). Prerequisite: One of the following statistics courses: **COM 303**, **PSY 311** or **SOC 354**; and either **NUR 200** or **NUR 340**. Introduces the research process and the contributions of research to the improvement of nursing practice. Focuses on the critical analysis and interpretation of research reports and the development of strategies for implementation of research findings. Must be completed for senior standing in the major. *Writing*.

NUR 370 Parish Nursing 1 (3-0-3). Open to RNs only. This is the first course in preparation of the specialized practice of Parish Nursing. Course content includes the role of the faith community in health and wholeness; study of the theology, history, philosophy and ethics of parish nursing; and legal boundaries and scope of practice of nursing in this specialty. Roles of the parish nurse include health educator, coordinator of volunteers, health advocates, collaborator, and integrator of spiritual health care. This course is based on the core curriculum of the International Parish Nurse Resource Center.

NUR 371 Parish Nursing 2 (0-6-3). Open to RNs only. This clinical course provides the nurse with supervised clinical experiences in the practice of Parish Nursing. Students have opportunity to observe the role of nursing in a faith community, perform nursing assessments and apply principles of Parish Nursing in planning and implementing nursing interventions.

NUR 380 Primary Preventive Strategies for Childbearing Families Experiencing Stress (4-0-2). Half-semester course. Prerequisites: **NUR 305**, **NUR 306**, **NUR 312**, **NUR 313**. Prerequisite or Corequisite: **NUR 300**. Explores primary preventive strategies that can be used to ameliorate stressors that affect the health of childbearing families. Theoretical issues related to developmental and situational stressors are presented. (**NUR 382** must be taken concurrently.)

NUR 382 Primary Preventive Strategies for Childbearing Families Experiencing Stress - Clinical (0-12-3). Half-semester course. Prerequisites: **NUR 305**, **NUR 306**, **NUR 312**, **NUR 313**. Focuses on the use of the nursing process to provide primary preventive care to childbearing families experiencing stressors. Psychomotor skills will be learned and practiced in a skills laboratory prior to performance in a community-based setting. (**NUR 380** must be taken concurrently; **NUR 300** must be taken concurrently unless previously completed.)

NUR 403 Professional Role Development III (1-0-1). Prerequisites: *Must be participating in the CSU – CCF Experiential Learning Program.*

Students will examine the role of the Registered Nurse through reflection on practice. And identify own strengths and weakness and career goals. Opportunities for continued professional growth will be explored.

NUR 407 Preventive Strategies for Gerontologic Nursing (4-0-2). Half-semester course. Prerequisite: Senior standing in the Nursing major. (Open to RN students only.) Focuses on using the conceptual framework in planning and evaluating preventive strategies in the provision of health care for the older adult. Theories, concepts, and principles related to adaptation of stressors are presented. (**NUR 408** and **NUR 409** must be taken concurrently).

NUR 408 Preventive Strategies for Nursing in the Community: Home Care (4-0-2). Half-semester course. Prerequisites: Senior standing in the Nursing major. (Open to RN students only.) Focuses on using the conceptual framework in planning and evaluating preventive strategies for the provision of nursing care to adults and families in the community. Theories, concepts, and principles related to adaptation of stressors are presented. (**NUR 407** and **NUR 409** must be taken concurrently). *Writing*.

NUR 409 Preventive Strategies for Nursing - Clinical (0-4-2). Prerequisite: Senior standing in the Nursing major. (Open to R.N. students only.) Focuses on the use of the nursing process to provide preventive care to adults in community-based settings who are experiencing health problems as a result of stressors. Emphasis is on implementing strategies to facilitate the client's ability to adapt to stress. (**NUR 407** and **NUR 408** must be taken concurrently.)

NUR 410 Primary Preventive Strategies for Communities I (4-0-2). Half-semester course. Prerequisites: **PHL 240** and senior standing in Nursing major. Focuses on the care of clients in their homes. Historical perspectives of home health care and the legal and ethical issues involved will be explored. Types of case management, financing, and provider roles will be discussed. (**NUR 411** must be taken concurrently.)

NUR 411 Primary Preventive Strategies for Communities I - Clinical (0-12-3). Half-semester course. Prerequisites: **PHL 240** and senior standing in Nursing major. Focuses on application of case management in home-health nursing. Emphasis is on primary preventive aspects of planning and providing care to individuals and families in their homes. Roles of the nurse in home-health nursing will be explored. (**NUR 410** must be taken concurrently.)

NUR 412 Primary Preventive Strategies for Communities II (4-0-2). Half-semester course. Prerequisites: **PHL 240** and senior standing in Nursing major. Focuses on community as client and the factors necessary to define and describe the client and assess community. Basic principles of the study, prevention, and control of diseases that impact a community will be discussed. Use of the nursing process to plan care for the community will be explored. (**NUR 414** must be taken concurrently.)

NUR 414 Primary Preventive Strategies for Communities II - Clinical (0-12-3). Half-semester course. Prerequisites: **PHL 240** and senior standing in Nursing major. Focuses on community assessment. Students will use the nursing process to develop therapeutic nursing interventions for communities with increased risk of illness, disability, or premature death. Emphasis is on health promotion, health maintenance, health education, and case management for the community. (**NUR 412** must be taken concurrently.)

NUR 415 Preventive Strategies in Complex and Critical Situations (4-0-2). Half-semester course. Prerequisites: **NUR 410**, **NUR 411**, **NUR 412**, N**UR 414**. Focuses on care of adults with life-threatening health problems in a variety of settings. (**NUR 416** must be taken concurrently.)

NUR 416 Preventive Strategies in Complex and Critical Situations - Clinical (0-8-2). Half-semester course. Prerequisites: **NUR 410**, **NUR 411**, **NUR 412**, **NUR 414**. Focuses on care of clients with life-threatening health problems with emphasis on assessment, integration of laboratory results, use of biomedical technology, and planning and implementing appropriate nursing care. (**NUR 415** must be taken concurrently.)

NUR 420 Role Practicum (0-12-3). *3-semester course*. Prerequisites: **NUR 410**, **NUR 411**, **NUR 412**, and **NUR 414**. Designed to provide the student with in-depth experience within a chosen field of practice. Emphasis is directed toward use of the nursing process within the parameters of the stress framework for the refinement of clinical skills in the delivery of quality nursing care for individuals, groups, families, or communities. Includes experience in operationalizing the entire role spectrum of the professional nurse.

NUR 430 Professional Seminar Issues in Nursing (2-0-1). Half-semester course. Prerequisites: Either **NUR 410**, **NUR 411**, **NUR 412**, and **NUR 414**, or **NUR 440** and **NUR 441**. Identifies and explores contemporary issues and future trends that have impact on the profession. Students will examine selected legal, economic, political, cultural, and ethical issues that act as stressors on the professional nurse, the practice of nursing, and the delivery of nursing care within the health-care delivery system.

NUR 440 Primary Preventive Strategies for Communities (4-0-2). Half-semester course. Prerequisites: Senior standing in Nursing major, **NUR 407**, **NUR 408**, **NUR 409**. (Open to R.N.s only.) Focuses on community as client and the factors necessary to define, describe the client, and assess needs. Basic principles of the study, prevention, and control of diseases that impact a client will be discussed. Use of the nursing process to plan care for the community will be explored. (**NUR 441** must be taken concurrently.)

NUR 441 Primary Preventive Strategies for Communities - Clinical (0-4-1). Half-semester course. Prerequisites: Senior standing in Nursing major, **NUR 407**, **NUR 408**, **NUR 409**. (Open to R.N.s only.) Focuses on community assessment. Students will use the nursing process to develop nursing interventions for communities with increased risk of illness, disability, or premature death. Emphasis is on health promotion, health maintenance, health education, and case management for the community. (**NUR 440** must be taken concurrently.)

NUR 460 Role Practicum (0-12-3). Half-semester course. Prerequisites: **NUR 407**, **NUR 408**, **NUR 409**, **NUR 440**, **NUR 441**. (Open to R.N.s only.) Designed to provide the student with in-depth experience within a chosen field of practice. Emphasis is directed toward use of the nursing process within the parameters of the stress framework in the refinement of clinical skills and in the delivery of quality nursing care for individuals, groups, families, or communities. Includes experience in operationalizing the entire role spectrum of the professional nurse.

NUR 493 Special Topics in Nursing (1 to 4 credits). Prerequisite: Admission to the Nursing program or permission of instructor. Study of health problems of particular groups. Topics arranged by mutual agreement of the students and the department. May be repeated.

NUR 496 Independent Study (1 to 4 credits). Prerequisite: Admission to the Nursing program or permission of instructor. Faculty-supervised independent study in one area of student's interest. May be repeated.

NUR 498 Health of Older Persons (4-0-4). A comprehensive course emphasizing health-related factors which affect the aged population in the United States; aging as a normal but irreversible process; factors contributing to health promotion or maintenance, such as nutrition and access to health-care delivery systems; patterns of illness and viable alternatives to institutionalization of the aged. (Core course for Gerontology Certificate Program). *Writing*.

Operations Management and Business Statistics Courses

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Faculty

Professors: Injazz Chen, Chia-Shin Chung, James O. Flynn (Chair), Walter O. Rom; **Associate Professors:** Susan A. Slotnick, Oya Icmeli Tukel; **Associate Professor Emeritus:** Ronald L. Coccari; **Term Assistant Professors:** Kenneth A. Paetsch, Michael Polomsky.

Course Descriptions

OMS 201 Business Statistics I (3-0-3). Prerequisite: **MTH 156**. Application of statistical methods to business problems; topics include descriptive statistics, elementary probability, random variables and probability distributions, the binomial, Poisson, and normal and "t" distributions; estimation and hypothesis testing; type I and II errors and their control. *Mathematics and Logic*.

OMS 202 Business Statistics II (3-0-3). Prerequisite: **OMS 201**. Application of statistical methods to business problems; topics include chi-square analysis, the F distribution, one-way and two-way analysis of variance, correlation analysis, simple and multiple regression analysis, and introduction to forecasting with regression models; use of computer programs in solving statistical problems. *Mathematics and Logic*.

OMS 311 Introduction to Operations Management (3-0-3). Prerequisite: **OMS 201**. Introduction to the design and management of manufacturing and service operations. Students will learn to recognize the basic tradeoffs associated with operations management decisions, to identify and quantify operating characteristics of different manufacturing and service systems, and to apply a variety of tools and techniques used by operations managers. Topics include product and service design, quality management and control, capacity planning, location decisions, facilities layout, supply chain management, JIT, and lean operations.

OMS 312 Operations Research (4-0-4). Prerequisite: **OMS 311**. This course covers quantitative models commonly used in business and industries. Topics include linear programming, transportation, assignment, and transshipment problems; integer linear programming; network models; conditional probability; markov chain; waiting line models; decision analysis; multicriteria decision problems; and dynamic programming. Examples of business application will be used to establish the relevancy of the models. Cross-listed with **CIS 312**.

OMS 412 Supply Chain Management (4-0-4). Prerequisite: **OMS 311**. This course deals with the movement of goods and services through a distribution channel from supplier to the ultimate customer. Topics covered include development of supply chain management; logistics environment, including political and legal environment; global logistics; transportation systems, including intermodal systems; warehousing and packing; logistic quality; and strategic decisions in logistics.

OMS 413 Production Planning and Control (4-0-4). Prerequisite: **OMS 311** or permission of the instructor. Planning, scheduling, and controlling of activities related to the production of goods are examined. Topics include manufacturing planning and control, short-term forecasting systems, demand management and order servicing, sales and operations planning (SOP), master production scheduling (MPS), enterprise resource planning (ERP), supply chain management (SCM) inventory, material requirements planning (MRP), bills of material (BOM), capacity requirements planning (CRP), distribution requirements planning (DRP), advanced concepts in material requirements planning.

OMS 415 Case Studies in Operations Management (4-0-4). Prerequisite: **OMS 311** or permission of the instructor. Examines classic and current issues in operations management. Provides advanced fundamental and strategic methodologies for operations decision making. Topics include supply chain management, e-commerce, JIT, enterprise resource planning, service operations management, customer service, purchasing, quality control, human resource management, and strategy. Includes readings, lectures, guest speakers, and plant tours.

OMS 417 Principles of Lean Operations (4-0-4). Prerequisite: **OMS 311** or permission of the instructor. The primary focus of this course is to present techniques which are intended to synchronize and streamline the production process including inventory management. Non-value added activities and waste are the targets of these techniques. Topics include value stream mapping, 5S, set-up time reduction, six sigma, maintaining and improving equipment, small lot production, and level scheduling in pull production.

OMS 419 Operations Strategy (4-0-4). Prerequisite: **OMS 311**
or permission of the instructor. A study of the development and implementation of operations strategy in manufacturing and service settings, and the interface and integration of this strategy with other functional areas such as marketing, finance, etc. Topics include strategic perspectives on the design and introduction of new products and services, competitiveness, capacity, quality, choice of process and technology, productivity management and supply network relationships.

OMS 421 Service Operations Management (4-0-4). Prerequisite: **OMS 311** or permission of the instructor. A study of the design, control, planning, and evaluation of service systems, including service aspects of manufacturing firms. Topics include the strategy of designing and implementing service systems, measurement and improvement of their quality and productivity, and the roles of supply chain management, demand management and technology. Students will use quantitative tools to analyze service systems in order to measure and improve their performance, and apply these concepts and tools in the analysis of cases.

OMS 422 Project Management for Business and Technology (3-2-4). Prerequisite: **OMS 311**. Designed to teach students how to design, implement and control "business" and "technical" projects. Students will be exposed to projects in product development, marketing, process improvement, and engineering projects to learn the differences and similarities in managing them as well as the human side of project management. The course coverage is intended for advanced undergraduate students and it is designed to help them get started as project managers. The course coverage also prepares students for the Project Management Professional (PMP) Certification exam. Microsoft Project package will be used during lab hours.

OMS 425 International Operations Management (3-0-3). Prerequisite: **OMS 311**. Introduces students to the advantages and pitfalls of managing productive systems outside the US. Study of multinational manufacturers and the effects of culture, language, politics, and trade agreements on global supply chain performance through case studies. Topics include history of international trade, operations in global business strategy, improving global supply chain performance, Japanese tier system for outsourcing, global quality standards, and global service operations.

OMS 431 Sampling and Experimental Design (4-0-4). Prerequisite: **OMS 202**. This course presents the principal applications of sample surveys, survey design, criteria of a good sample design, and characteristics of simple random sampling, stratified random sampling, and cluster sampling. Case studies are used where appropriate to illustrate applications of survey sampling. This course also explains how to plan an experiment so that appropriate data can be collected and analyzed and a reliable conclusion can be drawn. Topics covered in the design of experiments include fundamentals, completely randomized design, randomized complete blocks, Latin square, factorial, nested factorial, and

analysis of variance in regression models. Strong emphasis will be placed on the application of SAS software to actual data.

OMS 433 Data Analysis (4-0-4). Prerequisite: **OMS 202**. This course presents practical applications of statistical methods by using SAS software. The emphasis is on giving students experience in solving business problems using appropriate statistical methods. The SAS topics to be covered include creating SAS data set, using SAS procedure, summarizing data, and interpreting outputs. Statistical techniques studied and applied include organization and presentation of data, statistical testing, multiple regression, analysis of variance, and experimental design. Case studies and projects, with SAS applications, are used to show the application of statistical methods to business problems.

OMS 435 Forecasting (4-0-4). Prerequisite: **OMS 202**
or equivalent. A critical study of the forecasting methods available for use in business and nonbusiness organizations. The emphasis is on developing the ability to use regression and time series methods. Topics will include simple and multiple regression models, leading indicators, smoothing models, classical decomposition, time-series regression models, seasonal-cyclical models, BOX-Jenkins analysis, integrating forecasting and planning in practice, comparison and selection of forecasting methods. An evaluation of forecasting techniques is also presented, including evaluation of accuracy, techniques for improving accuracy, and analysis of the appropriateness of each model. In addition, a number of statistical and forecasting software packages are demonstrated. This will enable the student to complete a series of forecasting projects that are required as part of the course.

OMS 445 Quality Control and Management (4-0-4). Prerequisite: **OMS 311**. This course covers the core principles of the management of quality in the production of goods and services. Statistical quality control techniques are used in the implementation of these principles. Topics include TQM, continuous improvement, control charts, sampling plans, process capability, and ISO 9000. Applicable computer software is used to implement the techniques.

OMS 448 Queuing and Simulation (4-0-4). Prerequisite: **OMS 202**. This course covers the application of simulation and animation techniques to queuing systems using personal computers. Included are more complex systems such as those encountered in production, inventory, and service systems. Statistical tools are used to analyze the simulated systems. In addition, the use of simulation software will be an integral part of the course.

OMS 490 Professional Internship in Operations Management and Business Statistics (1 to 4 credits). Prerequisites: **OMS 201**-**202** and **OMS 311**, junior standing, and approval of chair and sponsoring professor. Requires professional operations management/statistics work experience in an organizational environment that extends the curriculum and provides meaningful experience related to the student's area of interest. Term report required. The course is graded on a Pass/Fail basis.

OMS 493 Special Topics in Operations Management (1 to 4 credits). Prerequisite: Senior standing and permission of instructor and department chair. Explores current issues or special topics in operations management and business statistics. Topics and course requirements will be announced by the department.

OMS 496 Independent Study (1 to 4 credits).
Prerequisites: Senior standing, approval of sponsoring professor and department chairperson, written proposal approval before registration. Flexible content/structure course to enable qualified students to pursue special areas of interest and competency; opportunity for independent study, field research, or other special assignments.

OMS 499 Honors Thesis in Operations Management and Business Statistics (4 credits). Prerequisite: Restricted to senior OMS honors students. Requires the honors student to conduct a piece of original research in operations management or business statistics under the supervision of an OMS faculty member. The thesis will be presented orally and submitted as a written report.

Philosophy Courses

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Faculty

Professors: Joseph DeMarco, Nicholas J. Moutafakis, Nelson Pole, Samuel A. Richmond, Alan S. Rosenbaum, Mary Ellen Waithe; **Professors Emeritus/Emerita:** Richard M. Fox, Jane McIntyre; **Associate Professors:** Michael R. Baumer, Martin T. Harvey, Allyson Robichaud, Diane Steinberg (Chairperson), Lee F. Werth.

Course Descriptions

Note: Prerequisites for courses below may be waived with approval of the instructor. Students who have had a 4-credit course in a particular area should not take a corresponding two-credit course, and vice versa.

PHL 131 Deductive Logic I (4-0-4). An introduction to symbolic logic, with an emphasis on the study of propositional logic. *Mathematics and Logic*.

PHL 171 Introduction to Philosophy (4-0-4).
Prerequisite: Open only to freshmen and sophomores or by written permission of department chairperson. An elementary survey of leading themes, thinkers, movements, branches, and problems in Western philosophy. *Arts and Humanities*.

PHL 181 Historical Introduction to Philosophy (4-0-4).
Traces the development of fundamental themes, problems, and ideas in the Western philosophical tradition via readings drawn from the tradition's leading historical figures. *Arts and Humanities*, *Western Culture and Civilization*.

PHL 211 Morals and Rights (4-0-4).
An introductory survey of philosophical approaches to moral problems. Emphasis will be on theories about how we ought to act and about goals, rights and responsibilities appropriate to human beings. Current moral issues are analyzed and discussed. *Arts and Humanities*.

PHL 213 Environmental Ethics (4-0-4).
This course will examine different conceptions of nature, and different theories about the relationship of humans to their natural environment, that have shaped current debates about environmental issues. Readings will be drawn from historically important moral theories as well as from contemporary philosophical writings in the area of environmental ethics. Philosophical questions addressed will include: What things are intrinsically valuable? What are rights? Do non-humans (e.g. other animals, natural objects) have rights? What responsibilities do we have to future generations? *Arts and Humanities*.

PHL 213H Environmental Ethics - Honors (4-0-4).
Prerequisites: Honors standing or permission of university Honors Program. This course will examine different conceptions of nature, and different theories about the relationship of humans to their natural environment, that have shaped current debates about environmental issues. Readings will be drawn from historically important moral theories as well as from contemporary philosophical writings in the area of environmental ethics and works of literature. Questions addressed will include: What are rights? Who/what should have them? What kinds of things, if any, are intrinsically valuable? What responsibilities do we have to future generations? *Arts and Humanities*, *Writing*.

PHL 215 Engineering Ethics (3-0-3).
An examination of the social impact of technology and its relationship to ethics, with the objective of identifying and clarifying obligations that might arise in technological research and its applications. The course will survey a variety of moral theories, as well as engineering codes of ethics. The case study method will be used: sources will include the history of science and technology, and reports from professional societies. Topics covered may include whistle blowing; and environmental, safety, and privacy issues. *Arts and Humanities*, *Writing*.

PHL 220 Philosophy, Fantasy, and Science Fiction (4-0-4). This course introduces perennial philosophical problems and concepts through readings from great works of Western philosophy and classical works of fantasy and science fiction. Philosophical problems to be discussed include: the nature of reality, space and time; questions about knowledge; and alternative views of the good life and the good society. *Arts and Humanities*.

PHL 240 Health Care Ethics (3-0-3).
An introduction to major ethical theories and the principles of bioethics. This knowledge will be applied to the analysis of ethical problems that arise in the health-care field. *Arts and Humanities*.

PHL 242H Ethics and Biotechnology - Honors: (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program. An application of major ethical theories and viewpoints, surveyed in the course, to important and controversial issues in biotechnology such as genetic modification of agricultural products, genetic enhancement of human traits, stem cell research, and human cloning. *Arts and Humanities*, *Writing*.

PHL 245 Science and Philosophy (4-0-4).
A survey of the interplay of key scientific concepts and philosophical ideas as these impact upon such areas as cosmology, evolution, technology, and social change. *Arts and Humanities*.

PHL 246H Nature and Rationality - Honors (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program. An exploration of the issue of nature's intriguing openness to theoretical description and prediction. Areas of discussion include Pythagoreanism and its presence in the works of Kepler, Copernicus, Galileo and Newton. The implications of advances in evolutionary theory and quantum mechanics will be introduced as challenges to traditional views regarding comprehending a supposedly ordered universe. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

PHL 252 African-American Social Philosophy (4-0-4). An examination of major African-American philosophers, with an emphasis on their views about the nature of race and racism and about appropriate responses to racism. The course will explore the philosophical roots of these themes, with special attention to the influences from the history of philosophy, including Marxism, American pragmatism, and existentialism. *African-American Experience*, *Human Diversity*.

PHL 253 Philosophy of Feminism (4-0-4).
An examination of classical and contemporary views on the nature of woman; the variety of response within the feminist movement to the situation of women in modern society; emphasis is placed on discovery of underlying philosophical presuppositions concerning human nature, human good, equality, masculinity, and femininity.

PHL 255 Non-Western Philosophy (4-0-4).
This course introduces students to the rich philosophical traditions of the non-western world. Emphasis is on non-contemporary traditions of metaphysics, cosmology, ethics, philosophy of religion, social and political philosophy and logic. *Arts and Humanities*, *Nonwestern Culture and Civilization*, *Writing*.

PHL 261 Ancient Philosophy (4-0-4).
An examination of the beginnings of Western philosophic thought from Thales through the Hellenistic period, with extensive consideration of Plato and Aristotle. Classical and Medieval Studies course; *Western Culture and Civilization*, *Arts and Humanities*, *Writing*.

PHL 262 Medieval Philosophy (4-0-4).
A continued examination of Western philosophic thought with special emphasis on St. Augustine and Thomas Aquinas. Classical and Medieval Studies course; *Western Culture and Civilization*, *Arts and Humanities*.

PHL 263 Early Modern Philosophy (4-0-4).
A continuation of the examination of Western philosophic thought up to the 19th century, including Continental Rationalism (Descartes, Leibnitz, Spinoza, and Kant) and British Empiricism (Locke, Berkeley, and Hume). *Western Culture and Civilization*, *Arts and Humanities*, *Writing*.

PHL 283 Introduction to Ethics (4-0-4).
An introduction to ethics through the study of the history of ethics. This course traces the development of fundamental themes and problems of ethics in the Western philosophical tradition through readings drawn from leading philosophers. *Arts and Humanities*, *Western Culture and Civilization*.

PHL 311 Ethics (4-0-4).
Prerequisite: One course in philosophy. An examination of the assumptions, method and content of major theories of ethics, with an emphasis on contemporary approaches. *Writing*.

PHL 321 Philosophy of Art (4-0-4).
Prerequisite: One course in philosophy. An examination of art and aesthetic experience, including personal, social and political significance. Issues explored may include artistic concepts pertaining to form and content, representation and expression, meaning and truth, critical interpretation and evaluation. *Writing*.

PHL 331 Philosophy of Religion (4-0-4).
Prerequisite: One course in philosophy. An examination of the relations between various philosophical systems and historical religions; theories of faith and knowledge, including a discussion of proofs for the existence of God. *Writing*.

PHL 332 Deductive Logic II (4-0-4). Prerequisite: **PHL 131** or permission of instructor. A continuation of the study of symbolic logic, with an emphasis on predicate logic.

PHL 341 Philosophy of Law (4-0-4).
Prerequisite: One course in philosophy. The meaning and role of law in human life and contemporary society, with reference to social and political problems. *Writing*.

PHL 345 Philosophy of Science (4-0-4).
Prerequisites: Two courses in philosophy or permission of instructor. An examination of the assumptions and methodology of scientific explanation and its philosophic implications. *Writing*.

PHL 351 Social and Political Philosophy (4-0-4).
Prerequisite: One course in philosophy. A philosophical examination of the nature of justice, equality, liberty, rights and political obligation. Philosophers studied may include Plato, Hobbes, Locke, Hume, Kant, Marx and Mill, as well as contemporary theorists such as Rawls, Dworkin and Feinberg. *Writing*.

PHL 361 20th Century Continental Philosophy (4-0-4). Prerequisite: One course in philosophy. An examination of some of the key movements in recent continental thought. Typical readings may include selections from the works of Husserl, Heidegger, Sartre, Simone de Beauvoir, Merleau-Ponty, Foucault, Gadamer, Levinas. *Writing*.

PHL 362 American Philosophy (4-0-4).
Prerequisite: One course in philosophy. An examination of the thought of American philosophers, including Peirce, James, and Dewey. *Writing*.

PHL 363 19th-Century Thought (4-0-4).
Prerequisite: One course in philosophy. This course is a survey of competing 19th-century world views and methodologies. Excerpts from the works of philosophers such as Mill, Comte, Hegel, Schopenhauer, Kierkegaard, and Nietzsche will be examined, and the relevance of their views to 20th-century philosophy will be explored. *Writing*.

PHL 377 Philosophy and Language (4-0-4).
Prerequisite: One course in philosophy. An examination of the philosophical origins of traditional grammar and of transformational grammar; pertinent insights by thinkers, including Aristotle, Descartes, Locke, Hume, Wittgenstein, Chomsky, and Katz; special attention to the tenability of claims made by transformational grammarians from the viewpoint of philosophical consistency. Linguistic Studies course; *Writing*.

PHL 405 Prominent Philosophers (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. Concentrated study of the writings of outstanding philosophers (normally no more than one or two philosophers in any one offering). Usually offered every semester. May be repeated with change of topic. *Writing*.

PHL 410 Studies in the History of Philosophy (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. Study of a particular philosophical movement and its assumptions, methods, and implications. May be repeated with change of topic.

PHL 420 Reasoning in Bioethics: Basic Issues (2-0-2). Examines alternative approaches to bioethical reasoning - principlism casuistry, and the philosophy of social justice - in relation to such questions as resource allocation, death and dying, and other issues in bioethics.

PHL 421 Reasoning in Bioethics: Contextual Approaches (2-0-2). Examines alternative approaches to bioethical reasoning - virtue theory, narrative ethics, intuitionism, and Feminist ethics - in relation to such questions as informed consent privacy, and institutional practices with special attention to cultural relativism.

PHL 422 Clinical Bioethics: Cases I (2-0-2).
This course examines reasoning regarding classic and contemporary cases in bioethics. Professional conduct, conflicts of duties and conflicts of interests, relations among professions, cultural diversity, genetic counseling, and reproductive ethics are among topics typically included.

PHL 423 Clinical Bioethics: Cases II (2-0-2).
This course examines reasoning regarding classic and contemporary cases in bioethics. Human research subjects, informed consent, competence, organ transplantation, death and dying, and futility are among topics typically included.

PHL 424 Bioethics Policy: Prevention and Access (2-0-2). This course examines health policies regarding issues such as prevention, primary care, uninsured and underserved populations, rationing, and aims of managed-care relative to theories of justice, with international comparisons.

PHL 425 Bioethics Policy: Technology (2-0-2).
This course examines the impact of rapid technological change on bioethics. Among topics typically included are DNA technology, gene therapy, enhancement of inherited traits, transplant policy, surrogacy, health and the human environment.

PHL 426 Bioethics and Law: Regulation (2-0-2).
This course examines the foundations of human health institutions and practices in federal tax exemption legislation, federal financing (Medicare and Medicaid), state licensure laws, state insurance legislation, and proposal for health-law reform.

PHL 427 Bioethics and Law: Rights (2-0-2).
This course examines individual rights in areas such as refusal of treatment conception, birth, abortion, protection of human subjects in experimentation, the law of medical liability, and proposed patients' rights legislation.

PHL 428 Bioethics: Special Topics (2-0-2). This course examines special topics in bioethics. May be repeated with change of topic.

PHL 432 20th-Century Philosophy: The Analytic Tradition (4-0-4). Prerequisites: **PHL 131** plus another philosophy course numbered higher than 260. Study of the development of analytic philosophy in the 20th century. Typical readings may include selections from the works of Frege, Moore, Russell, Wittgenstein, Ayer, Austin, Quine, Putnam, Kripke, and Davidson. *Writing*.

PHL 433 Advanced Symbolic Logic (4-0-4). Prerequisite: **PHL 332** or permission of instructor. A continuation of the topics presented in **PHL 332**.

PHL 440 Moral Reasoning and Bioethics (4-0-4).
An examination of ethical systems and forms of argumentation as they bear upon case studies in bioethics. Dominant ethical theories will be studied and critiqued, especially from the standpoint of application. Reasoning at the levels of principles, rules, and particular judgments will be distinguished; and the relevance of institutional practices, roles, and particular circumstances will be analyzed. This course is offered via the Web. *Writing*.

PHL 441 Clinical Issues in Bioethics (4-0-4).
The course will focus on moral problems which arise in the day-to-day practice of health-care professionals, administrators, and researchers within the framework of existing institutions, social policies, and laws. It will include readings on controversial moral issues in clinical ethics and apply forms and strategies of moral reasoning to selected cases. This course is offered via the Web. *Writing*.

PHL 442 Policy Issues in Bioethics (4-0-4).
Policy issues in bioethics reviews the role of governments in developing and implementing health-care policies. Readings and discussion will cover such topics as surrogacy, transplantation, problems of financing, the allocation of resources, and experimentation. *Writing*.

PHL 443 Bioethics and the Law (4-0-4).
Students will learn rudimentary legal research skills, the structure of the American legal system, and constitutional foundations of health-care law as applied to some classical and contemporary legal issues which may include death and dying, transplantation, genetic and reproductive law, human subjects research, and employee testing for drug use. This course is offered via the Web.

PHL 444 Bioethics and Biotechnology (4-0-4). *(Effective Spring 2008.)* An application of bioethical viewpoints and major ethical theories to issues in biotechnology such as informed consent in genetic modification, potential risk and harm to humans and nonhuman animals, health resources used for human enhancement, genetic modification of agricultural products, stem cell research, use of human embryos, and human cloning. Tutorials on human genetics and recombinant DNA will be covered. *Writing (Note: Writing effective Spring 2008 only.)*

PHL 450 Philosophy of Mind (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. An investigation into classical and contemporary accounts of the concepts of person and action. Issues such as the mind-body problem and the problem of other minds will be discussed. *Writing*.

PHL 453 Social, Political, and Legal Philosophy (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. Concentration upon special problems of social, political, and legal philosophy; classical and contemporary views. *Writing*.

PHL 471 Theory of Knowledge (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. An examination of theories concerning the nature and extent of knowledge with an emphasis on contemporary approaches. *Writing*.

PHL 481 Metaphysics (4-0-4).
Prerequisites: Two courses in philosophy, at least one of which must be numbered higher than 260. An examination of the problems concerning the nature of reality. *Writing*.

PHL 489H Research Methods for Undergraduates - Honors (4-0-4). Prerequisites: Open only to Philosophy majors in the University Honors Program who have selected a department honors adviser and are simultaneously working on their research project. Introduction to research materials and methods in philosophy.

PHL 496 Research in Philosophy (1 to 4 credits).
Exhaustive research on a philosophic problem to assist the student in attaining proficiency in independent research. Application for permission to register for PHL 496 must be submitted to department chairperson or representative during the semester prior to the enrollment in the course. May be repeated for credit.

Physics Courses

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Faculty

Professors: Miron Kaufman (Chairperson), James Lock, Jearl Walker; **Professors Emeriti:** Karl J. Casper, Bernard Hamermesh, Herbert Schlosser, Jack A. Soules; **Associate Professors:** Paul Hambourger, Thomas Taylor, G. Theodore Wood; **Associate Professors Emeriti:** Clyde B. Bratton, George W. Ficken, Ronald Haybron, Robert Klein, Francis C. Stephenson; **Assistant Professors:** Kiril Streletzky, Jacqueline Vitali, Ulrich Zurcher; **Lecturers:** Robert Deissler, Thomas Kiovsky, Jeffrey Mackey, Tim McCollum, Jay Reynolds, Alla Zilichikhis; **Adjunct Faculty:** Gordon Chan, Cleveland Clinic Foundation; William Davros, Cleveland Clinic Foundation; Christopher Deibel, Cleveland Clinic Foundation; Toufiq Djemil, Cleveland Clinic Foundation; Gennady Neyman, Cleveland Clinic Foundation; Martin Weinhous, Cleveland Clinic Foundation; Douglas Wilkinson, Cleveland Clinic Foundation.

Course Descriptions

PHY 101 The Flying Circus of Physics: Motion and Heat (4-0-4). Prerequisite: one unit of high-school algebra. Practical and everyday aspects of physics concepts such as kitchen physics, walking on fire, mechanics of sports, and electricity. *Natural Science*.

PHY 102 The Flying Circus of Physics: Sound and Light (4-0-4). Prerequisite: one unit of high-school algebra. Topics include waves, optics, and modern physics, how the eye and camera work, the laser, the theory of relativity, and some basic cosmology (just what is a "black hole" anyhow?). *Natural Science*.

PHY 103 The Flying Circus of Physics Laboratory (0-2-1). Selected experiments in physics. **PHY 101** must be taken concurrently. *Natural Science Laboratory*.

PHY 115 Physics, Technology and Society (3-0-3).
Focuses on a specific technology, its underlying physics and its interaction with society. Topics may include space exploration, weapons systems, exotic modes of transportation, communication systems, and data storage and retrieval. *Natural Science*.

PHY 193 Topics in Physics (4-0-4).
Prerequisites: one unit of high-school algebra. Topics chosen by the instructor include "Science Fiction" or "Science of Photography." *Natural Science*.

PHY 200 Astronomy Laboratory. (0-2-1).
This course provides hands-on experience with simple observational astronomy activities. It compliments the educational experience of the Astronomy lecture courses **PHY 201** and **PHY 202**. Either **PHY 201** or **PHY 202** must be taken concurrently. *Natural Science Laboratory*.

PHY 201 Astronomy: Stars and Galaxies (4-0-4).
Prerequisite: One unit of high-school algebra. Introduction to astronomy, including stars, stellar evolution, origin of elements, galaxies, and cosmology. *Natural Science*.

PHY 202 Astronomy: Planets, Asteroids and Comets (4-0-4). Prerequisite: one unit of high-school algebra. Introduction to solar system, including the moon, sun, planets, asteroids, comets, and meteors. *Natural Science*.

PHY 203 Science and Religion I (3-0-3).
Introduction to the analysis of the interplay between religious, philosophical, and scientific attempts to understand the universe.

PHY 204 Science and Religion II (3-0-3). Prerequisite: **PHY 203**. Continuation of **PHY 203**.

PHY 205 History of Science I (4-0-4).
The development of scientific thought from antiquity to the 20th century and the new ideas of relativity and quantum mechanics. Key themes are the evolving universe and the development of Newtonian mechanics. *Natural Science*.

PHY 206 History of Science II (4-0-4).
The influence of modern physics on the development of scientific thought, including its influence on a new world view. The origin and the future of the universe will be discussed. *Natural Science*.

PHY 221 College Physics I (4-2-5).
Prerequisites: three units of high-school math, three units of high-school science. Algebra-based physics, including mechanics, thermodynamics, fluids, acoustics and optics. *Natural Science with Laboratory*.

PHY 222 College Physics II (4-2-5). Prerequisites: three units of high-school math, three units of high-school science, **PHY 221**. Algebra-based physics, including electricity, magnetism, atoms, nuclei, and elementary particles. *Natural Science with Laboratory*.

PHY 231 College Physics I – Biomedical Applications (3-2-4). Prerequisites: three units of high-school math, three units of high-school science. Algebra-based physics, including kinematics, dynamics, mechanical equilibrium, harmonic motion: spring and pendulum, fluids, thermodynamics: temperature, heat, ideal gases, heat engines. Physical principles are applied to problems from biology and medicine. *Natural Science with Laboratory*.

PHY 232 College Physics II – Biomedical Applications (3-2-4). Prerequisites: three units of high-school math, three units of high-school science, **PHY 231**. Algebra-based physics, including sound waves, electricity, magnetism, electromagnetic waves and spectrum of light, lenses and microscopes, wave-like properties of particles and structure of atoms, nuclei, and radioactivity. Physical principles are applied to problems from biology and medicine. *Natural Science with Laboratory*.

PHY 241 University Physics I (4-2-5). Prerequisites: **MTH 181**, three units of high-school math, three units of high-school science, Corequisite: **MTH 182**. Calculus-based physics, including mechanics, thermodynamics, and acoustics. *Natural Science with Laboratory*.

PHY 242 University Physics II (4-2-5). Prerequisites: **PHY 241**/ **243**, **MTH 181**, **MTH 182**, three units of high-school math, three units of high-school science, Corequisite: **MTH 281**. Calculus-based physics, including electricity, magnetism, optics. *Natural Science with Laboratory*.

PHY 243 University Physics I (4-2-5). Prerequisites: **MTH 181**, three units of high-school math, three units of high-school science, Corequisite: **MTH 182**. Calculus-based physics, including mechanics, thermodynamics, acoustics. *Writing*, *Natural Science with Laboratory*.

PHY 243H University Physics I (Honors) (4-2-5). Prerequisites: **MTH 181**, three units of high-school math, three units of high-school science plus either Honors standing or permission of university Honors Program. Corequ isite: **MTH 182**. Calculus-based honors physics with lab: mechanics, thermodynamics, acoustics. *Natural Science with Laboratory*, *Writing*.

PHY 244 University Physics II (4-2-5). Prerequisites: **PHY 241**/ **243**, **MTH 181**, **MTH 182**, three units of high-school math, three units of high-school science, Corequisite: **MTH 281** Calculus-based physics, including electricity, magnetism, and optics. *Writing*, *Natural Science with Laboratory.*

PHY 244H University Physics II (Honors) (4-2-5). Prerequisites: **PHY 241**/ **243** / **243H, MTH 181**, **MTH 182**, three units of high-school math, three units of high-school science, plus either Honors standing or permission of university Honors Program. Corequisite: **MTH 281**. Calculus-based honors physics with lab: electricity, magnetism, optics. *Natural Science with Laboratory*, *Writing*.

PHY 301 Musical Acoustics (3-2-4).
For music and speech and hearing majors. Analysis of waveforms, sound sources, transmi ssion and detection of sound, design of musical instruments.

PHY 310 Introduction to Holography (2-4-3). Prerequisites: **PHY 241** (**243**), **PHY 242** (**244**). Laboratory course, production of single- and multiple-beam transmission and reflection holograms, three-dimensional cylindrical holograms.

PHY 320 Introduction to Computational Physics (4-0-4). Prerequisite: **PHY 221** or **PHY 241**. Elements of modeling of physical and engineering phenomena using a programming package such as MATHCAD. Topics covered incl ude solving systems of equations, graphing functions, differential equations, and random processes.

PHY 325 Introduction to Theoretical Physics (4-0-4). Prerequisites: **PHY 241** (**243**), **PHY 242** (**244**), **MTH 181**, **MTH 182**, **MTH 281**. Physics applications of differentiation, integration, Fourier series, differential equ ations, complex numbers.

PHY 330 Introduction to Modern Physics (4-0-4). Prerequisites: **PHY 241** (**243**), **PHY 242** (**244**), **MTH 181**, **MTH 182**, **MTH 281**. Theory of special relativity, wave properties of particles and particle properties of light, atomic and nuclear structure, radioactivity, semiconductors.

PHY 335 Modern Physics Laboratory (2-4-4). Prerequisites: **PHY 241** (or **PHY243** or **PHY243H**), **PHY 242** (or **PHY 244** or **PHY 244H**), **PHY 330**. Hands-on exposure to experimental basis of modern physics, including: Milikan oil dr op experiment, blackbody radiation, photoelectric effect, NMR, microwaves, X rays. *Writing (effective Spring 2007)*.

PHY 340 Mechanics and Vibrations (4-0-4). Prerequisites: **PHY 241** (**243**), **PHY 242** (**244**), **PHY 330**, **MTH 181**, **MTH 182**, **MTH 281**. Central force motion, classical scattering, Coriolis force, variable mass systems: roc kets, rotational motion: tops, precession, Lagrange's equation, Hamilton's equations, damped and driven oscillations.

PHY 350 Electricity and Magnetism (4-0-4). Prerequisites: **PHY 330**, **MTH 181**, **MTH 182**, **MTH 281**. Vector analysis; Gauss law, electrostatic potential; electric dipoles; dielectrics; Ampere law and Biot-Savart law ; magnetic dipoles, law of induction, displacement currents, Maxwell equations.

PHY 360 Electronics Laboratory (2-4-4). Prerequisites: **PHY 241** (**243**), **PHY 242** (**244**); **MTH 181**, **MTH 182**, **MTH 281**. AC and DC circuit analysis; steady states and transients; equivalent circuits; diodes, transisto rs and microprocessors; digital integrated circuits; sequential logic circuits.

PHY 395 Physics Seminar (variable credit). Prerequisites: Junior standing, permission of instructor. Topics of current interest.

PHY 400 Conceptual Physics for Middle School Teachers (4-2-5). Prerequisites: Senior standing in B.S. Education: Middle Childhood Education and Licensure. Course provides the content knowledge and skills of scientific inquiry necessary for teaching physics in middle school. Learning objectives are based on the national standards for science for grades four through eight. The course content includes: kinematics, mechanics, heat and temperature, energy, energy transfer , waves, acoustics, light and optics. Lectures will coordinate with laboratory exercises and inquiry based activities.

PHY 411 Advanced Physical Laboratory (variable credit). Prerequisite: Permission of instructor. Experiments in fields of current interest to physics faculty.

PHY 415 Introduction to Biological Physics (4-0-4). Prerequisites: **PHY 221**, **PHY 222** or **PHY 241** (or 243), **PHY 242** (or 244). As the body of knowledge in physics expands and diffuses into the life sciences, the need for instruction in biological physics increases. Students learn how to use the concepts of physics to analyze and understand important aspects of biological systems. The course is appropriate for students majoring in physics, chemistry, biology, or engineering.

PHY 416 Macromolecular Crystallography (4-0-4). Prerequisites: **PHY 221**, **PHY 222** or **PHY 231**, **PHY 232**, or **PHY 241** (or **243**), **PHY 242** (or **244**) and **MTH181**, **MTH182**. Macromolecular crystallography is at the heart of the genomics age allowing the determination of the three-dimensional structures of proteins that the genomes code fo r. This information is used to determine and understand their function and develop new drugs. Students learn the fundamentals of di ffraction theory, crystal properties and the basic concepts of solving the structures of macromolecular crystals. The course is appropria te for advanced undergraduates majoring in physics, chemistry and biology.

PHY 420 Computational Physics (4-0-4). Prerequisites: **PHY 320**, **PHY 330**. Numerical solutions to mechanics, electricity and magnetism, and solid-state physics problems.

PHY 430 Introduction to Medical Physics (4-0-4). Prerequisites: **PHY 241** (or **243**), **PHY 242** (or **244**) or permission of the instructor. This course will introduce students to the medical applications of radiation and imagi ng physics. Topics covered include interactions of radiation with biological tissues, production and properties of radionuclides, radiati on therapy physics, dosimetry, diagnostic radiology, nuclear medicine, and issues of radiation safety.

PHY 440 Quantum Physics I (4-0-4). Prerequisites: **PHY 330**, **PHY 340**. The uncertainty principle, the Schroedinger equation, probability and measurement, potential barrier and well problems, rigid rotator and ha rmonic oscillator, and the hydrogen atom.

PHY 441 Quantum Physics II (4-0-4). Prerequisites: **PHY 440**, **PHY 350**. Angular momentum and magnetic moment, Pauli spin matrices, time independent and time dependent perturbation theory, variational approxi mation, atomic fine structure and hyperfyne structure, partial wave analysis and the Born approximation for quantum mechanical sca ttering.

PHY 450 Optics and Electromagnetic Waves (4-0-4). Prerequisite: **PHY 330**. Maxwell equations; electromagnetic energy; electromagnetic waves; interaction of light with dielectric and metallic materials: di spersion; geometric optics; lenses and lens aberrations, mirrors, polarization, birefringence, interference, interferometer design , Frauenhoffer and Fresnel diffraction.

PHY 455 Optics Laboratory (2-6-4). Prerequisite: **PHY 450** or permission of instructor. Advanced optics laboratory that gives students

"hands-on" experience with optical instruments and techniques; experiments on dispersi on in glass, interferometry, spectral analysis, diffraction, Gaussian wave optics; student-designed experiment.

PHY 460 Laser Physics and Photonics (4-0-4). Prerequisites: **PHY 241** (or 243), **PHY 242** (or 244). Basics of laser operation and photonics. Topics include spontaneous and stimulated emission, the laser principle, la ser types, optical detectors, integrated optics.

PHY 470 Environmental Physics (4-0-4). Prerequisites: **PHY 221**, **PHY 241** or **PHY 243**. Study of physical phenomena underlying a set of current environmental issues. Topics include energy and entropy laws; electroma gnetic radiation; forms of energy, including fuels, nuclear, solar; percolation model; chaos theory, including population dynamics, and cl imate; computer simulations.

PHY 474 Thermal Physics (4-0-4). Prerequisites: **PHY 241** (or **243**), **PHY 242** (or **244**), **MTH 181**, **MTH 182**, **MTH 281**. Temperature, entropy, thermal equilibrium, equations of state, thermodynamic potentials, thermodyna mic stability, and phase transitions; applications, including fluids, electromagnetic radiation, and computer simulations.

PHY 475 Statistical Physics (4-0-4). Prerequisites: **PHY 330**, **PHY 474**. Microcanonical, canonical, grand-canonical ensembles, fermions, bosons; and applications, including fluids, normal modes, solids, metals, el ectromagnetic radiation, phase transitions, and computer simulations.

PHY 480 Introduction to Solid State Physics (4-0-4). Prerequisites: **PHY 241** (or **243**), **PHY 242** (or **244**). Electrons in solids; principles of LED and solid-state lasers; optoelectronic properties of semiconductors; materials for optical modulation, data storage and computing; liquid crystals; flat panel displays.

PHY 482 Introduction to Solid State Physics (4-0-4). Prerequisites: **PHY 241** (or **243**), **PHY 242** (or **244**). Same content as **PHY 480** but includes writing-requirement credit. *Writing*.

PHY 493 Advanced Topics in Physics (variable credit 1 - 8). Prerequisite: Senior standing. Topics approved by the physics faculty.

PHY 497 Independent Study (variable credit 1- 4).
Prerequisite: Approval of physics faculty member. Content and credit as arranged with instructor. Graded S/U.

Political Science Courses

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Faculty

Professors: Robert B. Charlick, Leon H. Hurwitz, Joel A. Lieske, Qingshan Tan; **Associate Professors:** David R. Elkins (Chair), Rodger M. Govea, Charles B. Hersch; **Assistant Professors:** Michele Gilbert, Jeffrey Lewis, Neda A. Zawahri; **Emeritus Faculty:** Ronald J. Busch, Everett F. Cataldo, Paul Dommel, Barbara B. Green, John D. Holm, B. James Kweder, Hans E. Segal.

Course Descriptions

PSC 111 American Government (4-0-4).
History and evolution of American political processes, institutions and public policies from the founding period to the present, including importance of federalism, culture, public opinion, parties, interest groups, elections and the media, nature and quality of American democracy, political challenges, dilemmas, and reform. *Social Science*, *Western Culture and Civilization*.

PSC 112 Controversial Issues in American Politics (2-0-2). Current controversies in American politics, including affirmative action, welfare reform, immigration policies, gay and lesbian rights, US military intervention abroad, abortion, establishment versus free-exercise of religion, gun control, crime, and civil violence. Frequent use of interactive classroom technologies, multimedia presentations, and political debates to encourage independent thinking, critical analysis, and lively discussions.

PSC 113 Controversial Issues in World Politics (2-0-2). Combines a brief survey of international relations literature with the use of a discussion/debate format to deal with contemporary issues involving the evolution of world politics and the international economy, national and international security, terrorism, human rights, nationalism, transnationalism, and national power and diplomacy.

PSC 211 State and Local Government (3-0-3). *Effective Spring 2008.* This course introduces students to features of the American states and their governments. The course will explore similarities and differences among the states' constitutions and key governmental institutions (administrative, legislative and judicial). The course will examine distinctive elements of states' politics with a particular focus on their political cultures and party systems. The course will briefly examine aspects of states' local governments.

PSC 212 Controversial Issues in American Politics (4-0-4). Focuses on current controversies in American politics, including abortion, gun control, crime, civil violence, affirmative action, welfare reform, campaign finance reform, immigration policies, gay and lesbian rights, establishment versus free-exercise of religion, and U.S. military intervention abroad. Frequent use of interactive classroom technologies, multimedia presentations, and political debates to encourage independent thinking, critical analysis, and lively discussions. *Social Science*.

PSC 213 Controversial Issues in World Politics (4-0-4). Combines a brief survey of international relations literature with the use of a discussion/debate format to deal with contemporary issues involving the evolution of world politics and the international economy, national and international security, terrorism, human rights, nationalism, transnationalism, and national power and diplomacy. *Social Science*.

PSC 217 Urban Politics and the African-American Experience (3-0-3). An examination of urban political institutions, decision processes, and problems of the cities and their suburbs. With regard to each topic, a primary concern will be on racism and its evolving consequences for African-Americans. *Human Diversity*, *African-American Experience*, *Social Science*.

PSC 221 Comparative Politics (4-0-4).
Basic concepts and theories of comparative politics through an analysis of selected political systems and governments in Western and non-Western societies. Topics will include ideology, political culture, institutional development, interest group politics, political participation, decision-making, economic development and underdevelopment, collective violence and stability, and political, economic, and bureaucratic elites. *Social Science*.

PSC 227 Power, Authority, and Society in Non-Western Communities (4-0-4). An examination of the way selected groups of Asian, African, and Latin American societies organize themselves with respect to power and authority to cope with a set of similar social problems. Attention will also be given to how changes take place in political organization and in political cultural identity, particularly at the mass level. The course makes extensive use of popular texts and stories, photographs and video, and other primary sources from the cultures studied. Cross-listed with **ANT 227**/ **HIS 227**. *Nonwestern Culture and Civilization*, *Social Science*.

PSC 231 International Politics (4-0-4).
Focuses on problems of security and strategies for enhancing security and well-being in the post-Cold War era. Basic concepts and processes of world politics are illustrated through the analysis of great power and regional rivalries. Topics include strategies and instruments such as conventional and nuclear war; alternative security strategies such as economic nationalism, diplomacy, international law, and international organization; and changes in the current international system related to economic globalization, environmental interdependence, transnational movements and nonstate actors. *Social Science*.

PSC 241 Freedom and Authority (3-0-3).
An examination of the treatment given to the differing concepts of authority and freedom by major political theorists. Specific concern will focus on the conflicts between the two concepts. Theorists considered include Hobbes, Locke, Rousseau, Madison, Tocqueville, Mill, and Green. *Social Science (effective through Fall 2006)*, *Western Culture and Civilization.*

PSC 251 Introduction to Data Analysis (3-0-3).
Sources of information for research in political science, the use of computers as a research tool, and elementary statistical analysis.

PSC 274 Introduction to the Middle East (4-0-4).
This course is designed to introduce students to the history, religious diversity, political systems, economy, and culture of the Middle East. The course includes a brief examination of ancient Middle Eastern civilizations and its history to the world. The course also

examines important historical junctures influencing the region today. It will include the contents, similarities, and diversities of Middle Eastern culture. The course examines three monotheistic religions and how Middle Easterners vary widely in their religious beliefs. It explores how this religious variance impacts Middle Eastern culture. The course introduces students to multiple aspects of the arts. Cross-listed with **ARB 274** and **HIS 274**. *Nonwestern Culture and Civilization*.

PSC 301 Urban Politics and Policy (4-0-4).
An overview of the development and implementation of urban public policies and programs as products of institutions and processes in cities, suburbs and metropolitan areas. Special attention will be given to the condition of African-Americans. Black Studies.

PSC 305 Cultural Diversity in U.S. Politics (4-0-4).
Examines the role of African-Americans, Hispanics, Native Americans, and other minorities in American politics. Particular attention is directed at barriers to participation, the critical factors in minority political successes, the problems and possibilities of coalition politics, and related policy issues. *Human Diversity*, *Writing*.

PSC 310 Constitutional Law (4-0-4). Basic principles of the United States Constitution, including judicial review, separation of powers, the powers of the presidency and Congress, and federalism. Introduction to individual rights and liberties, including right to privacy and the rights of criminal defendants.

PSC 311 Civil Rights and Civil Liberties (4-0-4).
Constitutional principles relating to race and sex discrimination; freedom of religion; and freedom of speech, press, and assembly.

PSC 314 State Government and Politics (4-0-4).
Issues between states and nation with particular attention to financial relations. Consideration of the capacity of state legislative and administrative systems, and problems of evaluation and change. Examination of policy-area issues, including those of education and welfare.

PSC 315 Public Policy and Administration (4-0-4).
Evaluation of alternative models for the U.S. policy-making process focusing on the political, institutional and bureaucratic influences of policy decisions. Emphasis will be given to the role public bureaucracies have had in shaping and influencing the policy process in a rapidly changing environment including decision-making, organizational theory, and the historical context of the administrative state.

PSC 317 Political Parties and Elections (4-0-4).
Importance of political parties and elections in American political history and development of the party system; role of public opinion, parties, and interest groups in democratic politics; effects of culture, political socialization, campaign politics, and issues on voting behavior; politics of social movements, the formation of political coalitions, and partisan realignment; party activity at state and local levels. *Writing*.

PSC 318 The Presidency and Congress (4-0-4).
Patterns of cooperation and conflict between the presidency and Congress in the making of United States public policy, both foreign and domestic; examination of issues of congressional revitalization and reform, and the dramatic growth in presidential power. *Western Culture and Civilization*.

PSC 319 Public Opinion (4-0-4).
Role of public opinion in democratic theory; methods and problems of polling and survey research; nature, formation, distribution, and learning of political attitudes; issues of democratic stability; group opinions, voting behavior, and elite behavior, and their impact on the policy-making process, public policy, and the quality of American democracy. *Writing*.

PSC 321 Political Violence (4-0-4).
Background conditions leading to political violence and revolution; ideology, class, ethnicity; the state's response to civil violence; strategies to prevent or engender violence; the destruction and reconstruction of consensus in a political system; the effectiveness of violence as a method of political influence; and the basis of political order also explored. *Writing*.

PSC 323 African Politics (4-0-4).
Unique and common patterns of political organization in Africa presented in a comparative framework; historical patterns, nature of colonial rule, impact on precolonial societies; struggle for Pan-Africanism, nationalism and liberation movements; character of postcolonial regimes. Other factors such as settler rule, racism, world economic organization and underdevelopment; domestic political responses to revolution, internal war, ethnic conflict, personal rule, patron-client relations, democratization, military intervention, institutional development, and development of civil society are explored. Black Studies; *Nonwestern Culture and Civilization*, *Writing*.

PSC 324 Russia and the Successor States (4-0-4).
This course is concerned with the rise and fall of the Soviet system as well as the politics of contemporary Russia and the other post-Soviet states. It considers the prerevolutionary background of the Russian Empire, the revolutions of 1917, the emergence of full-blown Stalinism, decay of the system, Gorbachev's effort at reform and the dissolution of the Soviet system. Focus also placed on nationality issues and the prospects for democratization and economic reform. *Western Culture and Civilization*, *Writing*.

PSC 325 Western European Politics (4-0-4).
Governmental structures and political processes in Western Europe; the European community and integration; separatist groups and disintegration; development of European human rights policies and processes, problems and prospects of parliamentary democracy. *Western Culture and Civilization*, *Writing*.

PSC 326 Politics of the Third World (4-0-4).
Problems and political dynamics of "developing states and societies" through a study of specific African, Asian, Latin-American, and Middle Eastern countries; class and ethnic conflict; the role of the military and bureaucracy; the capacity of the state to promote economic development and political order; role of global and regional system security and development; structural adjustment and regional autonomy policies. Black Studies; *Nonwestern Culture and Civilization*, *Writing*.

PSC 327 Politics of Peaceful World Change (4-0-4).
Possibilities for peaceful and equitable solutions to conflicts created by inequalities in economic development, global resource scarcity, the population explosion, and threats of ecological disaster; mechanisms for resolving these conflicts, including alternatives to the present international system; international law and organization. Emphasizes skills such as policy analysis, oral advocacy, nonviolent communications, negotiation, and arbitration. *Writing*.

PSC 328 International Political Economy (4-0-4).
Evolution of international economic policies and theories from mercantilism, and classical liberalism; structural approaches such as Marxism and Dependency, Rational Choice; international trade; international monetary policy and debt; investment and technology exchange; economic and technical assistance; economic integration; and globalization. *Writing*.

PSC 329 Politics and Political Economy of the European Union (4-0-4). The institutions and policy-making process of the European Union (EU) and the theoretical traditions in the study of European integration. The institutional form of the EU and the type of European

political economy and "polity" which is emerging. *Writing*, *Western Culture and Civilization (both effective Spring 2006)*.

PSC 330 U.S. National Security Policy (4-0-4).
An examination of issues affecting U.S. national security and the processes through which policy is made. Includes an examination of U.S. strategy, civil-military relations, regional strategic appraisals, the roles of the Department of Defense and the intelligence community, the revolution in military affairs, peacekeeping, and the challenges posed by failed states, rogue states and non-national adversaries, such as insurgents, narcotraffickers and terrorists. *Writing*.

PSC 331 United States Foreign Policy (4-0-4).
Major issues of American involvement in world politics; analysis of contemporary events and current international tensions; the politics of rivalry and alliance; the evolution of defense strategy; military interventions; diplomatic negotiations; the role of ideology, trade, and aid; U.S. foreign policy decision-making; theories of bureaucracy; interagency and interbranch relations; and role perceptions. *Writing*.

PSC 332 Politics in the Middle East (4-0-4).
Arab-Israeli conflict and relationships among the Arab states; role of the major powers in the Middle East; consideration of ideas and political manifestations of nationalism, the impact of imperialism, aspects of military strategy, problems of development, and the politics of oil; role of ethnicity, tribalism, culture and religion in explaining politics in Middle Eastern states. *Nonwestern Culture and Civilization*.

PSC 333 Latin American Politics (4-0-4).
Introduction to politics and society in selected Latin American republics; comparison of political systems; governmental approaches to economic and social problems; the role of the military; hemispheric relations; and the U.S. role in Latin America. Course covers Central and South America. *Nonwestern Culture and Civilization*, *Writing*.

PSC 334 U.S.-Latin American Security Issues (4-0-4). An examination of U.S.-Latin American relations, focusing on security matters. Covers the historical legacy of U.S. intervention, narcotrafficking, insurgency, democratization, civil-military relations, human rights, political instability, and U.S. aid. Includes case studies of several countries undergoing major security problems. *Writing*.

PSC 335 East Asian Politics (4-0-4). Focuses on the politics of China and Japan; political origins of cultural and institutional patterns, including communism, party politics, legislative affairs, local government, the role of government in economic management in promoting social order and social change. Course may deal with several additional East Asian states. *Nonwestern Culture and Civilization*, *Writing*.

PSC 337 Canadian Government and Politics (4-0-4).
Course examines how the major issues and cleavages in Canadian political life are mediated through the nation's political institutions. The cultural environment and traditions of Canada's people, and the evolution of the governing and partisan institutions of Canadian democracy are also examined. Course also focuses on relationships between Canada and the United States, and how the two nations both challenge and benefit one another. *Western Culture and Civilization*.

PSC 338 Central and Eastern Europe (4-0-4).
Focuses on the re-emergence of central Europe, democratization, economic change, and nationalism. Course will consider how the reunification of Germany, the end of the Cold War, and the collapse of the Soviet Union have altered the dynamics of Central and Eastern Europe; and the interplay of East and West in the area of the economic, political and cultural power of a re-united Germany. *Writing*, *Western Culture and Civilization*.

PSC 339 Political Economy of the Middle East and North Africa (4-0-4). This course examines the challenges, obstacles, and prospects for economic development in the Middle East and North Africa. It surveys theories of economic development and applies them to individual states in the region. Specifically, the course addresses questions about the role of natural resources in development. It examines the impact of population growth and the consequences of regional conflict on development. The course explores developmental outcomes in an era of globalization.

PSC 340 Foundations of Political Thought (4-0-4).
Plato, Aristotle, and other Greek-Roman political thought; main currents of medieval political theory, including Augustine. *Western Culture and Civilization*, *Writing*.

PSC 341 Modern Political Thought (4-0-4).
Political thought from the Renaissance to the present, focusing on liberalism and its critics, from Rousseau to postmodernism. Emphasis on figures such as Machiavelli, Locke, Rousseau, Marx, Foucault, and feminism as well as other theorists. *Western Culture and Civilization*, *Writing*.

PSC 342 American Political Thought (4-0-4).
Consideration of thought about American political institutions and practice. Major topics include revolutionary ideas and antecedents; framing of the Constitution and constitutional debate; 19th-century responses to slavery and large-scale industrialism; and modern social construction of race and gender. Other topics may include Jefferson, Paine, Melville, Jacksonianism, Progressivism, and modern liberal thought. *Western Culture and Civilization*, *Writing*.

PSC 391 Special Topics in Political Science (1-0-1). Important political issues of contemporary significance with implications for future change. May include foreign or domestic issues. Topics will be announced. May be repeated for credit with departmental permission.

PSC 392 Special Topics in Political Science (2-0-2). Important political issues of contemporary significance with implications for future change. May include foreign or domestic issues. Topics will be announced. May be repeated for credit with departmental permission.

PSC 393 Special Topics in Political Science (3-0-3). Important political issues with contemporary significance and potential consequences for future change. May include foreign or domestic issues. Topics will be announced. May be repeated for credit with departmental permission.

PSC 394 Special Topics in Political Science (4-0-4). Important political issues with contemporary significance and potential consequences for future change. May include foreign or domestic issues. Topics will be announced. May be repeated for credit with departmental permission.

PSC 401 City Council Internship Program (1-20-6).
Prerequisites: Introductory core and completion of the urban specialization or permission of the instructor and students must have at least a 3.0 GPA in their major. Fieldwork assignments with members or committees of Cleveland's City Council. Research paper required.

PSC 402 Campaign Politics Internship (1-20-6).
Prerequisites: Introductory core and completion of a specialization or permission of the instructor and students must have at least a 3.0 GPA in their major. Fieldwork assignments with candidates for public office, examination of the literature on campaigns and elections

combined with intensive training in campaign strategy and tactics, and seminars to assess fieldwork experience. Research paper required. (Offered only in even-numbered election years.)

PSC 403 Administrative Internship Program (1-20-6). Prerequisites: Introductory core and completion of a specialization or permission of the instructor. Fieldwork assignments with executive branch agencies of government, community, or neighborhood organizations and other agencies whose activities are directed toward public-sector concerns; seminars to assess fieldwork experience. Research paper required.

PSC 405 State Government Administrative Internship (1-35-6). Prerequisites: Introductory core and completion of a specialization or permission of the instructor. Fieldwork assignments with executive branch agencies of state government, seminars to assess fieldwork experience and to examine and discuss operations of state government. Written report required.

PSC 406 International Relations Internship (1-20-5). Prerequisites: Introductory core in political science or international relations, and completion of at least one additional 300- to 400-level course in international politics, or permission of the instructor. Fieldwork assignments with public or private sector actors or with non-governmental organizations with international operations and/or policy interests. Written report required. Does not substitute for **PSC 421**/**422** in the IR major curriculum.

PSC 407 Summer Internship (1-20-4).
Prerequisite: Introductory core or permission of the instructor. Fieldwork assignments with a city council, an administrative organization (government or non-profit), or an electoral campaign. This course does not count toward the completion of the Public Services Specialization. A research paper is required along with a final report on the internship placement.

PSC 420 Seminar in American Politics (5-0-5).
Prerequisites: Introductory core and one 300-level course in American politics, or permission of the instructor. Intensive examination of selected topics in American politics. Extensive writing assignment required. Detailed description of topics and methods to be publicized in advance. May be repeated for credit with departmental permission. *Writing*.

PSC 421 Seminar in Comparative Politics (5-0-5).
Prerequisites: Introductory core and one 300-level course in comparative politics, or permission of the instructor. Intensive examination of selected topics in comparative politics. Extensive writing assignment required. Detailed description of topics and methods to be publicized in advance. May be repeated for credit with departmental permission. *Writing*.

PSC 422 Seminar in International Relations (5-0-5). Prerequisites: Introductory core and one 300-level course in international politics, or permission of the instructor. Intensive examination of selected topics in international relations. Extensive writing assignment required. Detailed description of topics and methods to be publicized in advance. May be repeated for credit with departmental permission. *Writing*.

PSC 423 Seminar in Political Theory (5-0-5).
Prerequisites: Introductory core and one 300-level course in political theory or law, or permission of the instructor. Intensive examination of selected topics in political theory. Extensive writing assignment required. Detailed description of topics and methods to be publicized in advance. May be repeated for credit with departmental permission. *Writing*.

PSC 424 Seminar in Urban Politics (5-0-5).
Prerequisites: Introductory core and one 300-level course in urban or American politics, or permission of the instructor. Intensive examination of selected topics in American politics. Extensive writing assignment required. Detailed description of topics and methods to be publicized in advance. May be repeated for credit with departmental permission.

PSC 496 Independent Study (3-0-3).
Prerequisites: Junior standing, permission of instructor. Independent study guided by faculty member. A substantial written assignment is one of the requirements.

PSC 497 Independent Study (4-0-4).
Prerequisites: Junior standing, permission of instructor. Independent study guided by faculty member. A substantial written assignment is one of the requirements.

Psychology Courses

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Faculty

Professors:
Brian F. Blake, Stephen R. Coleman, David M. Grilly (Chairperson), Connie Hollinger, Boaz Kahana, Richard F. Rakos, Stephen D. Slane, Benjamin Wallace, John P. Wilson; **Associate Professors:** Chieh Chen Bowen, Leslie Fisher, Colleen McMahon, Kathleen M. McNamara, Amir Poreh, Andrew Slifkin, Albert F. Smith; **Assistant Professors:** Katherine Judge, Conor McLennan, Ernest Park; **Term Faculty:** Chris France; **Adjunct Faculty:** Sherry Ball, Francis Chiappa, Michael Wisniewski.

Course Descriptions

PSY 101 Introduction to Psychology (4-0-4).
Broad survey course covering topics such as research methodology; biological bases of behavior, perception, motivation and emotion; learning and memory; development; intelligence; personality; mental disturbance; and social influence. Prerequisite to most other psychology courses. *Social Science*.

PSY 220 Child Development (3-0-3).
This course reviews the literature on child biological, motor, perceptual, cognitive (including intelligence), language, emotional, social, and gender development. Child development history, theory, and research strategies will be discussed, as well as the effect of family, peers, media, and schooling. *Social Science*.

PSY 221 Adolescent Psychology (3-0-3).
Study of human development through adolescence to maturity. The role of maturational changes, and peer and family influences in the process of self-emergence and personal adjustment will be emphasized. *Social Science*.

PSY 223 Life Span Development (4-0-4). Prerequisite *(effective Spring, 2008)*: **PSY 101**. An overview of cognitive, social, emotional, and physical development from conception through old age. *Social Science*.

PSY 255 Psychology of Women (4-0-4).
This course provides an overview of women's issues from a psychological perspective ranging from a re-examination of traditional theories of personality to current topics of research interest. Where relevant, the course draws heavily from the research literature on sex differences and sex role socialization. Women's Studies course; *Social Science*, *Human Diversity*.

PSY 293 Special Topics in Psychology (2 to 4 Credits). Prerequisite: **PSY 101**. Course content will be announced in the semester course schedule. This course may be taken three times on different topics.

PSY 311 Behavioral Science Statistics (4-0-4). Prerequisite: **PSY 101**. Application of descriptive and inferential statistics to the analysis and interpretation of data in the social sciences, with special emphasis on hypothesis testing.

PSY 331 Industrial-Organizational Psychology (4-0-4). Prerequisite: **PSY 101**. Introduction to the methods used by industrial/organizational psychologists to increase organizational effectiveness and individual well-being. Topics include selection, training, appraisal, job attitudes, work motivation, leadership, job design, organizational culture, and work environment.

PSY 335 Consumer Psychology (4-0-4). Prerequisite: **PSY 101**. Examination of the role of psychological processes (such as attitudes, needs, personality) in influencing one's reaction to consumer goods and services. Implications for advertising, marketing research, and public opinion polling will be addressed.

PSY 339 Social Psychology (4-0-4). Prerequisite: **PSY 101**. Theory and method in social psychology, impression formation, social cognition, attitude change, social influence, group processes, applications of social psychology.

PSY 342 Psychology of Personality (4-0-4). Prerequisite: **PSY 101**. This course surveys the major theories of personality and its measurement. Emphasis is placed on understanding how personality influences behavior. Psychodynamic, humanistic, and behavioral perspectives, among other topics, will be surveyed.

PSY 344 Intellectual and Personality Testing (4-0-4). Prerequisite: **PSY 101**. Course covers basic theory of psychological assessment. The construction, administration, and interpretation of psychological tests of intelligence, abilities, and personality will be discussed. Depending on instructor, emphasis will be placed on measurement theory or practical applications.

PSY 345 Abnormal Psychology (4-0-4). Prerequisite: **PSY 101**. Examination of the field of abnormal psychology, surveying the major psychological disorders and their classification. Causes and treatments of the major disorders are explored from various theoretical perspectives.

PSY 349 Introduction to Clinical Psychology (4-0-4). Prerequisite: **PSY 101**. Introduction to the professional practice of clinical psychology. Clinical and research activities (assessment, therapy, consultation, system intervention), training models, settings (clinic, hospital, school, court) and professional issues (roles, ethics, laws) are among the topics examined.

PSY 351 Personal Behavior Modification (4-0-4). Prerequisite: **PSY 101**. Introduction to behavioral theory, assessment, and modification techniques. Consideration of several skills central to adjustment in contemporary society (such as assertion, active listening, anger and stress management, rational thinking, and decision-making) Students will be required to conduct a behavioral self-management project that attempts to change a personally relevant behavioral concern and then describe the project in a detailed paper.

PSY 352 Human Sexuality (4-0-4). Prerequisite: **PSY 101**. This course provides students with a balanced presentation of theory, data, and practical application in the area of human sexuality. Students will explore their attitudes, beliefs, and feelings about human sexuality. The course will help students become more comfortable with their own sexuality; develop greater sensitivity to the attitudes, beliefs, and feelings of others, and create and maintain healthy and fulfilling relationships with others.

PSY 353 Health Psychology (4-0-4). Prerequisite: **PSY 101**. The impact of behavior, cognition, and affect on biological function and

dysfunction is examined from theoretical and empirical perspectives. Stress and coping styles, behavioral medicine (such as compliance, pain management, behavioral factors in acute and chronic illness), lifestyle choices, and habit control are among the topics considered in relation to the prevention and treatment of disease.

PSY 356 Multicultural Psychology (4-0-4). Prerequisite: **PSY 101**. Examination of theories of differences and their application to behavioral change. Diversity across race, gender, and class is explored. *Human Diversity*.

PSY 357 Humanistic/Transpersonal Psychology (4-0-4). Prerequisites: **PSY 101** and at least one psychology course at the 200 level, or permission of instructor. This course will introduce students to the subject matter of humanistic/transpersonal psychology both in terms of underlying concepts and in terms of selected experiential components. Humanistic/Transpersonal psychology addresses questions of value, meaning, and purpose. Some key concepts are peak experiences, self transcendence, optimal mental health, and transpersonal development.

PSY 361 Psychology of Consciousness (4-0-4). Prerequisite: **PSY 101**. An examination of a wide range of material relevant to the understanding of human consciousness. Topics include the nature and history of human consciousness, altered states of consciousness, sleep and dreams, meditation, biofeedback, hypnosis, and behavior-altering drugs.

PSY 368 Perceptual Processes (4-0-4). Prerequisite: **PSY 101**. This course is a detailed review of human sensory and perceptual processes with applications to psychological issues (such as visual form perception, auditory sensory analysis, perceptual constancies, and attention). The visual and auditory modalities will be emphasized.

PSY 370 Psychology of Learning (4-0-4). Prerequisite: **PSY 101**. Survey of research findings and theoretical issues in the study of basic learning processes, such as habituation and sensitization, varieties of conditioning, contingencies of reinforcement and punishment. Such processes contribute to understanding and treating behavioral problems.

PSY 372 Memory and Cognition (4-0-4). Prerequisite: **PSY 101**. Examination of major areas of theory and research in cognitive psychology and psycholinguistics, including the topics of perception and attention, memory, semantics, language comprehension, production and acquisition, and the processes of reasoning and decision-making.

PSY 385 Psychology of Motivation (4-0-4). Prerequisite: **PSY 101**. Survey of major concepts, research findings, and issues in the study of the selection, initiation, and persistence of behavior across the spectrum of psychology.

PSY 390 Field Placement (0-4-4). Prerequisites: **PSY 101**, at least 8 credit hours of psychology courses at the 300- to 400-level and permission of the instructor. Advanced students are placed in an applied setting in the community, presenting the opportunity to learn the process of utilizing previously acquired academic knowledge within the context of an applied setting. Placement experiences are supplemented by on-site supervision, weekly group meetings, outside reading assignments, and a written report. Up to 8 credit hours may be taken, but only eight credit hours of **PSY 390** and **PSY 396** combined can be applied toward the 36-hour requirement for psychology majors.

PSY 393 Special Topics in Psychology (1 to 4 credits). Prerequisite: **PSY 101**. Course content will be announced in the semester course schedule. May be taken three times with different topics.

PSY 396 Independent Study (credit as arranged). Prerequisites: **PSY 101**, **PSY 311** or equivalent, written permission of the instructor, and departmental approval. Up to 8 credit hours may be taken, but only 8 credit hours of **PSY 390** and **PSY 396** combined can be applied toward the 36-hour requirement for psychology majors. Offered every semester.

PSY 411 Computer Applications of Statistics (4-0-4). Prerequisites: **PSY 101** and **PSY 311** or equivalent or permission of instructor. This course is designed to help students become proficient at using statistical software (such as SAS) in order to analyze data. Emphasis will also be placed upon interpreting analyzed data. Topics covered will be ANOVA, MANOVA, multiple regression, and chi-square.

PSY 412 Psychology Laboratory (2-6-4). Prerequisites: **PSY 101** and **311** or equivalent. Covers methods of research design, data collection, data analysis, and reporting of research findings. Students conduct empirical research and write reports. *Writing*.

PSY 414 Writing in Psychology (2-0-2). Prerequisites: **PSY 101**. This course is designed to develop the writing skills of students with respect to writing conceptual (review or theoretical) papers according to APA format. A substantial written report is one of the requirements. Enrolled students must be concurrently enrolled in any 300- or 400-level content-based psychology course. Prior to registering, students must obtain a written agreement from the content course instructor to serve as a grader of the required written report. The content course instructor, in consultation with the student, will determine the topic of the written report. *Writing*.

PSY 429 Psychology of Aging (4-0-4). Prerequisite: **PSY 101**. Comprehensive survey of aging — the final developmental period in the lifespan. Topics include methodological issues, theoretical perspectives on aging, changes in cognitive, social, and personality functions, and psychopathology. *Human Diversity*.

PSY 448 Mental Health and Aging (4-0-4). Prerequisites: **PSY 101** and **PSY 345**, or permission of instructor. Course focuses on the nature and problems of old age, including change, and stability associated with the aging process; mental-health issues; assessment and treatment of emotional and organic brain disorders in late life, and long-term care vs. home-care issues.

PSY 451 Human Performance (4-0-4). Prerequisite: **PSY 101**. A review of the major empirical studies and theoretical trends that have shed light on our understanding of the processes by which humans, and other animals, generate, control and learn goal-directed behavior (action).Topics include information processing, attention, sensory and central contributions, principles of simple movement, coordination, and learning processes.

PSY 479 History of Psychology (4-0-4). Prerequisites: **PSY 101**, and three Psychology courses (not to include **PSY 396**). Examination of the development of psychological ideas since the Classical Period, and of Psychology as a discipline since the nineteenth century.

PSY 481 Psychopharmacology (4-0-4). Prerequisite: **PSY 101** and **BIO 100** or equivalent. Covers the principles of drug actions in the nervous system and describes the effects of drugs on behavioral variables; deals with drugs that are commonly used in recreational and clinical settings.

PSY 482 Biological Basis of Behavior (4-0-4). Prerequisites: **PSY 101** and **BIO 100** or equivalent. Reviews our knowledge of how behavior and cognition are controlled by neural and other physiological processes. The content falls into three areas: an examination of neurons and neurotransmitters; a description of sensory and motor systems; and a summary of various behavioral and cognitive phenomena (e.g., learning, memory, psychiatric disorders) and how the central nervous system is involved in their control.

PSY 487 Brain and Cognition (4-0-4). Prerequisite: **PSY 101**. Cognitive neuropsychology is the study of cognitive processes as revealed by their disruption due to brain damage, and by modern techniques of brain investigation. The course presents current topics in cognitive neuropsychology, including units on basic brain anatomy and functioning, perceptual and attentional processes, language, and memory.

PSY 493 Special Topics in Psychology (2 to 4 credits). Prerequisite: Psychology major, senior standing, or permission of instructor.

Seminar on current research in psychology. Specific topics will be announced in the semester course schedule. May be taken three times on different topics.

PSY 495 Honors Seminar (4-0-4). *This course no longer offered effective Spring 2008; see instead **PSY 495H**.* Prerequisite: **PSY 101**. The Honors Seminar is designed for students who aspire to graduate with honors. As such, the seminar is designed to facilitate two major student objectives: familiarize students with current controversies in the field of psychology, and design the senior research project which will be carried out in the senior year as part of the requirement to complete the Honors Program.

PSY 495H Honors Seminar (4-0-4). Prerequisite: **PSY 101**. The Honors Seminar is designed for students who aspire to graduate with honors. As such, the seminar is designed to facilitate two major student objectives: familiarize students with current controversies in the field of psychology, and design the senior research project which will be carried out in the senior year as part of the requirement to complete the Honors Program.

PSY 497 Senior Project (4-0-4). *This course no longer offered effective Spring 2008; see instead **PSY 497H**.* Prerequisites: **PSY 101** and **PSY 495**. The Senior Project is a personally designed study to be carried out during the senior year. The project may be an empirical study, an analytical thesis on a selected topic in the field of psychology or a meta-analysis of a research topic. The Senior Project is a requirement of the Honors Program which must be completed by the last semester of the senior year. The Senior Project will be supervised by the director of the Honors Program or by other faculty in the department.

PSY 497H Senior Honors Project (1 to 4 credits). Prerequisites: **PSY 101** and **PSY 495H**. Students accepted into the Honors Program in Psychology, and who have taken PSY 495H: Honors Seminar enroll in PSY 497H: Senior Honors Project during each semester of their senior year. During the first semester of PSY 497H, students conduct research proposed during PSY 495H, and during the second semester of PSY 497H, students complete and defend an honors thesis. PSY 497H: Senior Honors Project is a requirement of the Honors Program in Psychology, and will be supervised by the director of the Honors Program or by other faculty in the department.

PSY 499 Exit Evaluation (0-1-0).
Prerequisite: senior standing. Final exit examination and outcomes assessment evaluation required of all graduating seniors. Graded S/U.

Public Safety Management Courses

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Faculty

Professors:
Mark S. Rosentraub (Dean), Sanda Kaufman (Director, MAES Program), W. Dennis Keating (Associate Dean), Sylvester Murray, Roberta Steinbacher, Camilla Stivers; **Associate Professors:** Jennifer Alexander, Harry Margulis, Michael Wells (Director of Undergraduate Programs); **Assistant Professor:** Ronnie Dunn.

Course Descriptions

PSM 302 Contemporary Urban Issues (4-0-4).
The physical, social, and economic dimensions of the urban crisis emphasizing minority communities; traditional and nontraditional approaches to problem definition and solution, techniques for understanding and shaping the physical environment; and constraints to problem solving in urban areas. Cross-listed with **UST 302**. *African-American Experience*, *Human Diversity*, *Writing*.

PSM 385 Practicum in Public Safety Management (Variable 2-24 credits). Prerequisite: permission of instructor. Independent experiential learning involving theory and practice in management, communication skills, community safety needs and the analytical tools for addressing issues and problems in public safety services and systems.

PSM 433 Conflict Management (4-0-4).
Examines conflict as an omnipresent component of any decision-making environment. Offers tools for understanding the nature of conflict; devising individual and group strategies that minimize the destructive consequences of conflict; and identifying solutions that are satisfactory to all involved. Includes lectures, discussions, and simulation games. Cross-listed with **USA 433** and **UST 433**.

PSM 451 Public Safety Management (4-0-4).
Introduction to public sector management in law enforcement, fire safety and related public safety agencies; leadership and management styles; decision-making and team building.

PSM 452 Management of Urban Organizations (4-0-4). Developing critical management skills; problem-solving, communication, and conflict resolution; introduction to Total Quality Management. Cross-listed with **USA 452** and **UST 452**.

PSM 453 Managing Urban Diversity (4-0-4).
Study of diversity including circumstances faced in urban settings that are exacerbated or affected by diversity factors; exploration of a range of social, political, and economic issues related to diversity. Cross-listed with **USA 453** and **UST 453**. *Human Diversity*.

Religious Studies Courses

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Faculty

Professors Emeriti: Lee W. Gibbs, David E. Bynum, Frederick H. Holck; **Associate Professors:** Edward P. Brennan, Derwood C. Smith (Chairperson); **Associate Professor Emeritus:** James E. Royster; **Assistant Professor:** Stephen Cory; **Term Assistant Professor:** Beverly Bow.

Course Descriptions

REL 101 Understanding Religion (4-0-4).
A study of religions of the world through their myths, symbols, rituals, practices, and teachings. *Arts and Humanities.*

REL 217 Religion in Black America (4-0-4). Historical study of the religious movements of Black Americans. Black Studies; *African-American Experience*, *Arts and Humanities*, *Human Diversity*.

REL 227 Science and Belief (3-0-3).
Inquiry into modern scientific and religious consciousness in the light of modern scientific approaches to "reality" and the influence of Eastern religious thought in the West. *Arts and Humanities.*

REL 231 Introduction to the Old Testament (4-0-4). Examination of the literature of the Old Testament in the light of its historical context. Classical and Medieval Studies course; *Western Culture and Civilization*, *Arts and Humanities.*

REL 232 Jesus and the Gospels (4-0-4).
The life and teachings of Jesus in their historical context, and examination of the ways in which Jesus is interpreted in the gospel materials. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization.*

REL 233 Paul and the Development of Christianity (4-0-4). Study of the emergence of the early Christian movement from its beginning through the time of the Apostle Paul. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization.*

REL 234 The Later New Testament (4-0-4).
Study of the development of the early Christian movement from the middle of the first century through the second century. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization.*

REL 236 Jesus and the Gospels - Writing (4-0-4).
The life and teachings of Jesus in their historical context, and examination of the ways in which Jesus is interpreted in the gospel materials. Same course as **REL 232**, but counts as Writing. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

REL 237 Paul and the Development of Christianity - Writing (4-0-4). Study of the emergence of the early Christian movement from its beginning through the time of the Apostle Paul. Same course as **REL 233**, but counts as Writing. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization, Writing*.

REL 238 The Later New Testament - Writing (4-0-4). Study of the development of the early Christian movement for the middle of the first century through the second century. Same course as **REL 234**, but counts as Writing. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

REL 239 Introduction to the Old Testament - Writing (4-0-4). Examination of the literature of the Old Testament in the light of its historical context. Same course as **REL 231**, but counts as Writing. Classical and Medieval Studies course; *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

REL 245 Religion in America (4-0-4).
Exploration of major religious issues arising out of the development and encounter of Protestantism, Catholicism, and Judaism in America. *Arts and Humanities*, *Western Culture and Civilization*, *Writing*.

REL 249 Current Moral Issues (4-0-4).
This course seeks to clarify moral frameworks for examining such important personal and social moral issues as the taking of human life, race relations and poverty, patterns of sexual behavior, and business practices. *Arts and Humanities.*

REL 250 Stages of Life (3-0-3).
An overview of stages of life topologies in various spiritual traditions, such as the Hindu topology of student, householder, forest-dweller, and wandering ascetic. The course focuses on maturing to old age. Contemporary problems of the aged are addressed from the spiritual perspective. *Arts and Humanities.*

REL 251 Perspectives on Death and Dying (4-0-4).
Interdisciplinary examination of death and dying as seen from the viewpoints of religion, psychology, biology, and law. *Arts and Humanities.*

REL 260 Women and Religion (3-0-3).
An historical approach to the questions surrounding women and traditional religious roles, ideals, and models. Women's Studies course; *Arts and Humanities.*

REL 261 Religion and the Mystery of Evil (4-0-4). Exploration of the religious experience of evil as symbolically depicted in terms of magic, witchcraft, and the Devil. *Arts and Humanities.*

REL 265 Religion and Culture (4-0-4).
Interaction of religion and culture as seen in such areas as literature, art, film, music, and theater. *Arts and Humanities*, *Western Culture and Civilization*.

REL 268 Religion and Culture in Africa (3-0-3).
Exploration of religious traditions in selected African cultures as represented in literary texts, drama, art, and theological writing. *Nonwestern Culture and Civilization*.

REL 276 Eastern Religions (4-0-4).
An introduction to Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, and Shinto. A consideration of their origins, development, and contemporary trends. Asian Studies course; *Nonwestern Culture and Civilization*, *Arts and Humanities*.

REL 280 Introduction to Mythology (4-0-4).
An introduction to ancient Greek mythology and to the theory of mythology in general. The course will focus on the Homeric Iliad and later interpretations of the Iliad. *Western Culture and Civilization*, *Arts and Humanities*.

REL 285 Myths of Fate and Destiny (4-0-4).
A study of fate and destiny in the Hebrew story of Abraham. the Tsimshian Indian legend of Asdiwal, and the Odyssey of Homer. *Arts and Humanities*.

REL 317 Religious Ethics of Malcolm X and Martin Luther King (4-0-4). This course explores the religious ethics of Malcolm X and Martin Luther King Jr., as presented in their own speeches and writings and the works of various interpreters. Black Studies course; *African-American Experience*, *Human Diversity*.

REL 321 Contemporary Christian Thought (4-0-4). Selected topics in the background and development of recent Christian thought. *Western Culture and Civilization*. **Return to top**

REL 336 Hellenistic and Roman Religions (4-0-4). Study of Graeco-Roman religions of the Hellenistic period. Topics include mystery religions, emperor worship, miracle workers, magic, astrology, and savior figures. Classical and Medieval Studies course.

REL 340 Folktale (4-0-4). This course examines the interplay of human, demoniac, and divine elements in folktales.

REL 341 The Origin of Judaism (4-0-4).
History, institutions, and thought of Judaism from the Exile (587 B.C.E.) to the formation of the Babylonian Talmud (circa fifth century C.E.). Classical and Medieval Studies course.

REL 342 The Rise of Modern Judaism (4-0-4).
Cultural, social, and religious history of the Jews in the Middle Ages and modern times, with particular emphasis on Judaism in America in the 20th century.

REL 343 Ancient and Medieval Christianity (4-0-4). Historical development of Christianity from the early period to the Renaissance. Classical and Medieval Studies course; *Western Culture and Civilization*, *Writing*.

REL 344 The Rise of Modern Christianity (4-0-4). Historical development of Christianity from the Reformation to the present. *Western Culture and Civilization*, *Writing*.

REL 355 Religion After Freud and Jung (4-0-4).
Examination of the psychological interpretation of religious experience, myth, and rituals, as set forth in some of the most relevant works of Sigmund Freud and Carl Gustav Jung. *Western Culture and Civilization*, *Writing*.

REL 360 Hinduism (4-0-4).
Origin and historical development of Hinduism, including its systems of thought, religious literature, institutions, and practices. Asian Studies course; *Nonwestern Culture and Civilization*.

REL 362 Buddhism (4-0-4).
Origin and historical development of Buddhism, including its systems of thought, religious literature, institutions, and practices. Asian Studies course; *Nonwestern Culture and Civilization*.

REL 364 Islam (4-0-4).
Origin and historical development of Islam, including its theology, institutions, and practices. Asian Studies course; *Nonwestern Culture and Civilization*.

REL 366 Modern Islamic Movements (4-0-4).
Course will explore works of modern Islamic writers from a variety of backrounds and perspectives. Review will include arguments of more radical Islamists such as Sayyid Qutb or the Ayatollah Khomeini, but also will examine the works of Muslim thinkers who represent a different, more liberal interpretation of Islam. Topics include: Islam and Democracy, Role of Women in Islam, Islam and Modernity, Islam and Holy War, and Islamic views on religious and political authority. *Writing*, *Nonwestern Culture and Civilization*.

REL 367 Muslim Relations with Christians and Jews (4-0-4). In this course, we will study the history of conflict and cooperation between Christians, Muslims and Jews, read foundational, historical, and modern texts exemplifying views from each faith community towards the others, examine modern conflicts, and learn about recent approaches at inter-faith dialogue and cooperation. Background knowledge of Christianity, Judaism, and Islam is helpful, and introductory information on all three faiths will be available on two hour reserve at the library for those who are interested. *Nonwestern Culture and Civilization*, *Writing*.

REL 370 Sexual Ethics (4-0-4).
A critical examination of some current topics in sexual ethics from religious and social perspectives.

REL 376 Women in Early Christianity (4-0-4).
An examination of the attitudes toward, and roles of, women in the Greco-Roman and Jewish worlds; in the teaching of Jesus; in Paul; and in early Christianity through the second century. Classical and Medieval Studies course;

REL 380 Ancient Greek Mythology: The Gods (4-0-4).
A study of ancient Greek gods, godhead, and folk religion based primarily on Homer, The Hymns and Hesiod.

REL 463 Myth, Legends, and Folk Tales (4-0-4).
Examination of the symbolism in, and the interrelationships between, typical myths, legends, and folk tales. Several archetypal stories are read and discussed. *Western Culture and Civilization*, *Writing*.

REL 466 Advanced Topics in the Historical Jesus (4-0-4). Prerequisite: **REL 232**. Selected topics in the study of Jesus and the

origin of the early Christian movement. May be repeated for credit with change of topic. Classical and Medieval Studies course;

REL 468 Advanced Topics in Paul (4-0-4). Prerequisite: **REL 233**. An advanced study in the place and significance of Paul in early Christianity. Classical and Medieval Studies course.

REL 495 Seminar in Religion (4-0-4).
Prerequisite: Two courses in religion or permission of instructor. Intensive examination of the works of specific religious thinkers and movements. Specific topics listed in the quarterly course schedule. May be repeated with a change of topic for up to 12 credit hours.

REL 496 Research in Religion (2 to 4 credits).
Guided independent research, term paper and/or examination required as appropriate. Application for permission to register must be submitted to the chairperson during the semester prior to the enrollment in the course. May be repeated for up to 12 credit hours.

REL 498 Senior Seminar (2 credits). Capstone seminar for Religious Studies majors. Senior standing.

College of Science Courses

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Course Descriptions

SCI 220 Science as a Way of Thinking (4-0-4).
Prerequisites: Completion of General Education Requirements in the areas of English Composition and of Mathematics and Logic. An introduction to scientific reasoning, the nature of scientific evidence, and the foundation of major scientific theories. Examples from the major scientific disciplines will be used to illustrate how scientists create, use, and update their views of the world. *Natural Science*, *Writing*.

Social Work Courses

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Faculty

Professors:
Zev Harel, Maggie Jackson (Director, School of Social Work), Edward A. McKinney, Murali D. Nair (BSW Program Coordinator), Mieko Smith; **Professors Emeritae:** Winifred Bell, Willa M. Hemmons, Elizabeth Lewis, Ruth Ellen Lindenberg; **Associate Professors:** Elizabeth Cagan, Andrew W. Edwards, Larry W. Foster, Lonnie R. Helton, Michael R. Williams; **Assistant Professors:** Charlla Allen, David O'Malley; **Coordinator of Field Education:** Claudia Carson; **Assistant Coordinator of Field Education:** Edith Anderson.

Course Descriptions

SWK 150 The Black Experience and Contemporary Society (3-0-3). This course is a comprehensive overview of the contemporary Black experience as viewed from the social work perspective. This perspective assumes that being Black exposes one to differential treatment by social institutions. It also strives to introduce students to effective strategies for use at the individual, family, group, and community levels which seek to offset racism's negative consequences. *African-American Experience*, *Human Diversity*.

SWK 200 Introduction to Social Work (3-0-3).
Prerequisite to the major. Introduces students to concepts, settings, and vulnerable populations related to the field of social work. Emphasis placed on purposes, values, ethics, knowledge, and skills that characterize the professional social worker. Provides an overview of theoretical and practical knowledge about the social work profession needed for entry levels of practice in social work.

SWK 201 Contemporary Social Welfare (3-0-3). Prerequisite to **SWK 300**. Surveys the U.S. social welfare system, its purposes, historical development, and present functioning. Examines social welfare in a local, national, and international context, and in relation to broader political, social, and economic system. Addresses how social welfare responds to poverty, racism, sexism, and other institutionalized forms of oppression and injustice. Reviews alternative programs and policies that better meet human needs. *[Note: This course does meet the General Education Requirements for Social Science.] Social Science*.

SWK 240 Administration of Justice (3-0-3).
Study of criminal justice system. Topics include criminal prosecution, police and court functions, sentencing, and corrections, with critical examination of present practices and implications for change.

SWK 259 The Child, the Family, and the Law (3-0-3).
Defines, describes, and analyzes the legal situation of children in an adult-oriented society. Investigates children's rights with respect to major societal institutions, such as family, schools, the justice system, and the welfare system. Assesses societal attitudes, values, and beliefs to determine their impact upon the legal position of the child within these social systems. Explores current issues in adoption, abortion rights, and deinstitutionalization.

SWK 300 Social Welfare Policy (3-0-3). Prerequisite: **SWK 201**. Examines the policy-making process in social welfare, from policy formulation and development to implementation and impact. Reviews major social welfare policy developments in U.S. history, such as income security, health care and civil rights. Emphasizes conceptual and analytic models for policy development and evaluation in relation to social work's commitment to serving populations at risk and promoting global social and economic justice. *Writing*.

SWK 302 Human Behavior and Social Environment - Micro (3-0-3). Prerequisite: Junior standing or permission of instructor. Comparative analysis of selected theories of human behavior in the social environment through the life cycle for the purpose of understanding criteria for selection, use, and integration of theory and social intervention.

SWK 303 Human Behavior and Social Environments - Macro (3-0-3). Prerequisite: Junior standing or permission of instructor. Comparative study of human behavior within the contexts of formal and informal social systems (families, small groups, neighborhoods, organizations) focusing on the relationship between social environment and human behavior. *Writing*.

SWK 304 Perspectives on Social Work Research I (3-0-3). Prerequisite: **SWK 201**. Prerequisite to **SWK 305**. Introduction to the philosophy and methodology of science; acquaints the student with research techniques, strategies, and resources; develops critical readership ability; promotes consumership of research findings in social-work practice; instructs in the ethical and political considerations which are inherent in research. The course also provides students with skills to develop field research proposals.

SWK 305 Perspective on Social Work Research II (3-0-3). Prerequisite: **SWK 304**. This course builds on the knowledge acquired in Perspectives on Social Work Research I. This class aims to expand students' understanding of quantitative and qualitative methodologies, techniques and skills for data collection and management. It also aims to provide students with computer skills for text and data processing, and data processing techniques for descriptive and inferential statistics from research data. This course will expand students' knowledge and skills for social-work practice-related research and evaluation.

SWK 340 Legal Aspects of Human Services (3-0-3).
Course is opportunity to become familiar with legislative process, litigation and the courts, and administrative law; analysis of the relationship between individual rights and human services, including mental-health law, juvenile, narcotics, and housing laws.

SWK 341 Corrections: Institutional and Community-Based (3-0-3). Prerequisite **SWK 240**. Juvenile and adult correctional settings are explored. Study of the modes of organization and management which are applicable to correctional settings, examination of the resources and constraints in current community-based corrections practice as an alternative to incarceration, emphasis on new theory and innovative approaches in various countries.

SWK 342 Prisoners' Rights (3-0-3).
Overview of how the legal system deals with persons convicted of a crime or in the custody of correctional facilities, the correctional process itself as it relates to interests of defendants as well as to the interests of society, how correctional authorities mediate

between these two interests and to whom they are accountable.

SWK 350 Basic Generalist Practice (3-0-3). Prerequisite to **SWK 385**. This course is the first of the Intervention sequence, which prepares social work majors for generalist social work practice. It is designed to develop and enhance the students' knowledge, skills and affective development in forming working relationships necessary for generalist social work practice with individuals, families, small groups, organizations, and communities within a diverse society.

SWK 351 Social Work in Community Development (3-0-3). Prerequisite: Junior standing or permission of instructor. Builds knowledge about and awareness of practice with adult community groups, including self-help, social development and advocacy. Issues and policies associated with citizen development, and citizen participation activities - whether at service/program initiation, resource development or structural change levels - are analyzed. The course is aimed at identification and understanding of the problems/issues; the policies at federal, state and local levels; and the range of agencies, programs and autonomous community organizations which have a community-development orientation. *Writing*.

SWK 352 Practice in Health Settings (3-0-3).
Prerequisite: Junior standing or permission of instructor. Provides content and experiences which help the student understand the impact of illness on individuals and families and the settings in which health personnel function; knowledge and skills requisite for practice are considered, along with issues stemming from current health-care policies and service delivery.

SWK 353 Child Welfare Service (3-0-3).
Prerequisite: Junior standing or permission of instructor. The history of child welfare, family problems as they affect child welfare, and issues and alternatives in child-care services; discussion of settings where services are provided, as well as perspectives concerning child welfare as an area of practice.

SWK 354 Mental Health (3-0-3).
Prerequisite: Junior standing or permission of instructor. Introduces students to conceptual alternatives in mental health and acquaints them with consequences of these various conceptual approaches, encourages a scientific perspective in the mental-health field, educates students to seek new approaches to practice in the mental health field.

SWK 355 Asian American Experience (4-0-4).
This course deals with developing a better understanding of the evolution and settlement patterns, religious and social institutions, and help-seeking patterns of Asian Americans, one of the fastest growing visible minority groups in our society. The course will focus on Indian Americans and Chinese Americans, the two largest Asian American groups in Northeast Ohio. Other Asian groups, such as Filipinos, Japanese, Korean, Vietnamese, and other Southeastern and South Asian communities will also be highlighted, with special emphasis on Asian communities in Northeast Ohio. *Human Diversity*.

SWK 356 AIDS & Intervention (3-0-3).
Prerequisite: Junior standing or permission of instructor. Reviews the etiology of the HIV-AIDS virus, populations at risk, policies affecting public education, prevention, and treatment of AIDS. Interventions with persons, significant others/families and program/policy agencies will be identified.

SWK 357 Social Work Values and Ethics (3-0-3).
This course focuses on the foundations for ethical reasoning in practice, utilizing social work values, codes of ethics, and philosophic ethics. Case material that includes controversial issues in social work ethics, values and obligations are utilized. The distinction and relationship between practice competence and ethical competence in the profession is examined. Students learn how discipline-specific perspectives and practices interact to shape the ethical and moral issues in practice, and how to identify and respond to ethical issues that arise with diverse populations in a variety of practice settings, including health, mental health, corrections, family and child welfare.

SWK 360 Alcoholism (3-0-3).
Prerequisite: Junior standing or permission of instructor. Examination of the disease concept of alcoholism; including prevention, treatment, and recovery of the alcoholic and members of his/her family; considers questions of social policy and strategies and tactics in the field. Other forms of substance addiction are also considered.

SWK 371 Constitutional Criminal Procedure (3-0-3). Prerequisite: **SWK 240**. Course includes the major constitutional doctrines and issues relating to, and eliminating, criminal investigation (including the securing of physical and oral evidence) and the prosecution of crime. The history and purpose of these constitutional doctrines will be studied to enable students to understand that violations of any of the guarantees of the Bill of Rights must not be viewed as "technicalities," but as attacks on the freedom of all U.S. citizens.

SWK 372 Substance Abuse in Society (3-0-3).
Prerequisite: Junior standing or permission of instructor. Course provides a historical perspective regarding the use of mind-altering substances and views the impact(s) of use/abuse on the individual, family, and society. In addition, the course will examine various treatment modalities and the impact on vulnerable groups (such as adolescents, delinquents, elderly, minorities).

SWK 373 Honors Program in Social Work (4-0-4).
The purpose of this didactic, interactive program is to encourage students to develop a closer identification with social work scholars, practitioners and academicians. The Honors program is designed for social work majors during the junior/senior year of study for an undergraduate degree in social work. In order to qualify for this program social work majors need a 3.50 cumulative GPA in all courses. The successful completion of the requirements for this program with a grade of “B” or better, leads to a graduation with Honors in Social Work.

SWK 374 Law Enforcement in Society (3-0-3).
Examination of law enforcement at different levels of society - local, state, federal, and international - with special emphasis upon law enforcement's role and impact upon society and vice versa; includes presentation of law enforcement's purposes, methods, structure, and community interaction.

SWK 375 Criminal Law (3-0-3). Prerequisite: **SWK 240**. The nature and general provisions of criminal law; interpretation of criminal statutes; elements and parties to crime; defenses to criminal culpability; crimes against persons and property.

SWK 385 Interventions I (4-0-4). Prerequisites: **SWK 201**, **SWK 200**, **SWK 300**, **SWK 302**, **SWK 303**, **SWK 304**, **SWK 305**, **SWK 350**; written permission of adviser. Fundamental and basic professional course that allows students to develop, expand, and utilize knowledge of human development and social structure to initiate a framework for social-work practice; uses generalist model which requires development of skills that can be used in various social contexts. First of a two-semester sequence which encompasses a full range of strategies and skills necessary when working with individuals, families, small groups, organizations and communities. Emphasis on an inquiry model of social-work practice. A lab experience is required of all students as part of the course. Open to

social-work majors only. Student must achieve a grade of B or better to continue into **SWK 485**, **SWK 490**, and **SWK 495**. **SWK 385**, **SWK 390** and **SWK 395** must be taken concurrently.

SWK 390 Field Practicum I (0-16-6). Prerequisite: Written permission of field coordinator. **SWK 385**, **SWK 390**, and **SWK 395** must be taken concurrently. Placement in a selected community-service agency for 16 hours provides an opportunity to gain experience in the application of concepts and principles of interventions through actual problem-solving in the human service context. The student is required to demonstrate the integration of skills and a professional attitude in their work with clients and the agency. Continuation onto a second field practicum (**SWK 490**) and completion of the major are contingent on a grade of "B" or better.

SWK 395 Field Seminar I (2-0-2). Prerequisite: Written permission of field coordinator. This course is taken concurrently with **SWK 385** and **SWK 490**. Students are expected to synthesize practicum learning with knowledge gained in field experience and other courses. Themes addressed are practicum agency, policies, programs, current issues, various practice strategies and approaches. Student must achieve a grade of B or better to continue into **SWK 485**, **SWK 490**, and **SWK 495**. A log will be required of each student.

SWK 396 Readings in Social Work (2-0-2).
Prerequisites: Written permission of instructor and Director. Readings and assignments in areas of special interest to the Social Work major.

SWK 398 Africa Experience (Zimbabwe) (4-0-4).
This course will explore in detail selected social welfare, economic, and cultural issues prevalent in Zimbabwe, with special emphasis given to African University in Old Mutare, Zimbabwe, Africa. Students will have the opportunity to explore and develop a topic of choice. Visitations at community organizations, social welfare agencies, and orphanages will be arranged. Tours to historical sites will be provided to help students comprehend the complexities of Zimbabwe as a country. Activities will introduce students to the nature of social and political issues in the context of Zimbabwe. Study Abroad.

SWK 399 India Experience: Pre-departure orientation (3-0-3). Prerequisite to **SWK 499**. Examination of the rationale for participating in the India experience program. Discuss the pre-departure perception about India, personal, relatives, friends and media views. The course offers a brief overview of geography, history, social, cultural, and religious aspects of India with particular reference to Kerala, located in the southwestern part of India. There is correspondence through e-mail with Indian college students. The course will focus on travel, health related issues, culture shock, role expectation of a study abroad student, interactive session with former participants, observational visit to the Cleveland Hindu Temple, visit to Indian families in Cleveland, and taste Indian foods. Students will have the opportunity to learn Malayalam Language expressions.

SWK 465 Aging and Social Work (3-0-3).
Prerequisite: Junior standing or permission of instructor. Conceptual and methodological perspectives for understanding the basic needs of the aging and the contingencies they face; includes the principles of and strategies for assessing needs, establishing objectives, estimating resources, and determining and evaluating interventions at individual, family, group, and community levels. Opportunity for students to become familiar with programs for the aged, service delivery networks, and strategies for influencing social policy and legislation.

SWK 470 Problems and Issues in Criminal Justice (3-0-3). Prerequisite: **SWK 240**. Examination of contemporary social issues, including alcoholism, drug addiction, mental illness, poverty, family crisis, nonvictim crime, child abuse, senility, and racism as they intersect the criminal-justice system. Interaction of social issues and criminal behavior is analyzed with the focus on alternatives to arrest and incarceration through the use of community resources. Course expectations assume a background in criminal justice or administration of justice system.

SWK 475 Alternative Health Systems (4-0-4).
Prerequisite: Sophomore. This course provides an introduction to the phenomenon of America's interest in alternative and complementary health-care systems. It utilizes an ecological-systems perspective in developing the knowledge base necessary for an understanding of this phenomenon. This course will survey and critique a wide variety of scientific and general literature on this topic from different professional perspectives. The major domains identified by the National Center for Alternative and Complementary Medicine at the National Institute of Health are also discussed in this course. Though newly being discovered in the west, some of these health beliefs are centuries old. Special emphasis will be given to the healing practices of far-eastern countries, such as India. This is a WEB-CT (Internet)-based course. Students are expected to be knowledgeable about working with the Internet.

SWK 485 Interventions II (4-0-4). Prerequisites: **SWK 385**, **SWK 390**, **SWK 395** and written permission of field coordinator. **SWK 485**, **SWK 490** and **SWK 495**
must be taken concurrently. Course is designed to give the student an opportunity to study the theory and develop skills related to small groups and community dynamics. Organizational dynamics and community services will be the primary focus for course. Advocacy and various strategies to promote social/organizational change will be considered. Completion of the major is contingent upon a grade of B or better. *Writing*.

SWK 490 Field Practicum II (0-16-6). Prerequisites: **SWK 385**, **SWK 390**, **SWK 395** and written permission of field coordinator. **SWK 483**, **SWK 490** and **SWK 495** must be taken concurrently. Continuation of **SWK 390** involving an additional 16 hours per week minimum in community-service agency. Students may not receive field practicum experience for concurrent job experience; however, under exceptional circumstances, the department may agree to a field experience plan that incorporates part of a student's experience into the field practicum. Completion of the major is contingent upon a grade of B or better.

SWK 493 Special Topics in Social Welfare (3-0-3).
Prerequisite: Permission of Instructor. Study of special topics not regularly appearing in curriculum, including new developments in practice, programs, policy, and fields of service; intensive study of specific problem areas. Course may be repeated for credit not more than three times.

SWK 495 Field Seminar II (2-0-2). Prerequisite: Written permission of field coordinator. This is a continuation of **SWK 395** and is taken concurrently with **SWK 485** and **SWK 490**. Specific macro practices are addressed and students are expected to be more advanced in their ability to participate in dialogue. Completion of the major is contingent upon a grade of B or better. The log continues to be required.

SWK 496 Independent Study in Social Work (3-0-3). Prerequisites: Written permission of instructor and Director. Individual research or project conducted by Social Work majors.

SWK 497 Independent Study in Criminal Justice (3-0-3). Prerequisites: Written permission of instructor and chairperson. Individual research and projects conducted in the domain of criminal justice.

SWK 499 India Experience: Contemporary Social Issues in India (9-0-9). Prerequisite: **SWK 399**. This course will explore in detail

selected social welfare, economic and cultural issues prevalent in India, with special emphasis given to Southwestern state of Kerala. The course will focus on such issues as adult literacy, alternate health-care practices, community development and self-sufficiency, the electronic industrialization of rural communities, and the role of women. Students will have pre-departure orientation of an interview of India: social welfare, political, socioeconomic, Malayalam language and other cultural aspects, followed by four weeks of structured learning and intensive analysis of Kerala, involving lectures by local area experts and professors from the University of Kerala, visits and mini-internships to social welfare agencies, educational and health care organizations and rural communities. Students will have an opportunity to stay and interact with university students and their family members. As part of the program students will participate in reflected discussions, write daily logs, learn to communicate in Malayalam, upload day-to-day experiences into CSU India Experience Web site, prepare two major papers and give a presentation in front of an invited audience. Study Abroad; Foreign Culture course; *Writing*, *Nonwestern Culture and Civilization*.

Sociology Courses

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Faculty

Professors: Sarah H. Matthews (Chair), Philip Manning, Peter Meiksins, William R. Morgan; **Professors Emeriti:** William C. Bailey, Henry M. Barlow, Hans Nagpaul; **Associate Professors:** James Chriss, Mareyjoyce Green, Robert Kleidman, Teresa LaGrange, Wendy Regoeczi; **Assistant Professors:** Meredith Greif, Dana L. Hubbard, Rongjun Sun.

Course Descriptions

SOC 101 Introduction to Sociology (3-0-3).
Introduction to the sociological perspective, forms of social relationships, groups, institutions, and societal organization. Required for majors. *Social Science*.

SOC 201 Race, Class and Gender (3-0-3).
Survey of major theoretical approaches to race, class and gender; examination of empirical evidence regarding the extent of these kinds of inequality, the ways in which they are produced and reproduced and their consequences. Attempts to overcome the harmful consequences of race, class, and gender inequality, both through the affirmation of identity and difference and through efforts to reduce and/or eliminate these forms of stratification will be reviewed. Women's Studies; *Social Science*, *Human Diversity*.

SOC 203 Sociology of Poverty (3-0-3). Analysis of the evolution and significance of poverty in the United States, the characteristics of the poor and the experience of poverty, competing explanations for poverty, and evaluation of the impact of social policy on the poor and society as a whole. Black Studies; *Social Science*, *Writing*.

SOC 210 Introduction to Sociology of the Third World (3-0-3). Explore the diversity of the Third World by examining the experiences of several specific countries and regions. Will consider the characteristics, problems, and dynamics they have in common. Special attention will be given to the origins of social conflict in the Third World and to the prospects for social change. *Social Science*, *Nonwestern Culture and Civilization*.

SOC 211 American Culture and Society (3-0-3). *Effective Spring 2008: Prerequisite:* ***SOC 101*** *or permission of instructor.* Analysis of major social systems and dominant themes in contemporary American culture and society. *Social Science*, *Western Culture and Civilization*.

SOC 215 Black/White Interaction (3-0-3).
Patterns of exploitation, survival, conflict, accommodation, and cooperation between white majority and black minority in a changing society. *Social Science*, *Human Diversity*, *African-American Experience*.

SOC 250 Introduction to Criminology (3-0-3).
This course provides an overview of the field of criminology, including an examination of the causes, types, and distribution of crime in American society. Students are also introduced to the major components of the criminal justice system. Explores the collection and interpretation of crime data and contemporary issues relating to crime.

SOC 260 Deviance in the United States (3-0-3).
An examination of deviant behavior in American society. Topics covered are definitions and theories of deviance as well as various types of deviant behavior, including drug use and alcoholism, mental illness, crime, prostitution and other forms of sexual deviance. *Social Science*.

SOC 280H Science, Technology and Society (4-0-4). Prerequisite: Honors standing or permission of university Honors Program. This course uses concepts and methods from the social sciences to explore the relationship between science and technology and society. How do culture and social structure affect the production of scientific and technical knowledge? How do scientific and technological developments affect society? *Social Science*, *Western Culture and Civilization*, *Writing*.

SOC 302 Women in Corporate America (4-0-4).
Prerequisite: Written permission of instructor. Study of life course and mobility patterns of women managers in the private, public and nonprofit employment sector. Students are introduced to action research through participant observation. Each student has an on-site assignment with three female managers. Women's Studies course, cross-listed with **UST 320**. *Human Diversity*.

SOC 305 Urban Sociology (4-0-4).
The study of metropolitan development and social life. Examines the role of economic, political, and cultural factors at the global, national, and regional levels. Explores the history of urban sociology and contemporary perspectives. Analyzes the process of social change at the metropolitan level. *Writing*.

SOC 310 Sociology of Marriage and Family (4-0-4). *Effective Spring 2008: Prerequisite:* ***SOC 101*** *or permission of instructor.* The course focuses on contemporary issues in American family, including mate selection, marital communication, transition to parenthood, parenting, sexuality, extended kin, family disruptions, relationship between work and family, and the effects of changing gender roles.

SOC 311 Individual and Society (4-0-4).
Interaction between the individual and society; and examination of the ways in which society impinges upon the individual's behavior, with special emphasis upon socialization, self-concept, attitudes, and social roles. *Writing*.

SOC 312 Sociology of Mental Illness (4-0-4).
This course examines three central issues: our changing understanding of mental illness, the variety of approaches for the treatment of mental illness and the impact of social policy on the lives of the mentally ill. By combining historical, medical, and sociological perspectives, this course provides a broad introduction to the study of mental illness. The material is drawn primarily from the United States. *Writing*.

SOC 313 Sociology of Education (4-0-4).

Education as socialization; the dual role of the school as change and conservation agent, characteristics of school populations, changing roles of private and parochial education, organization and structure of authority and decision-making processes in public and private schools. *Writing*.

SOC 314 Sociology of Sports (4-0-4).
This course focuses on sports as social and cultural phenomena. Students will learn to use sociological concepts and critical thinking to discover how sports affect multiple spheres of our social life. The main focus will be on sports in the United States. Sports in other societies will be explored to help us better understand United States sports through comparison and contrast. Students will be encouraged to reflect on their own experiences as participants and spectators, and to connect these with larger social issues.

SOC 315 Population Problems (4-0-4).
Sociological significance of population size, distribution, composition, and density; population and economic development; United States population data in relation to other major countries; programs of family planning; population policies.

SOC 316 Sociology of Aging (4-0-4).
Critical analysis of the social status and participation of older persons in modern societies. Included topics such as theories of aging, demography, family ties, economic status, health-care delivery systems and long-term care, dying and death, and the U.S. as an aging society. Gerontological Studies course.

SOC 317 Sociology of Gender (4-0-4).
Examines the significance of gender differences in the experiences of women and men in social institutions (such as family, education, economic, legal, political), the theoretical perspectives utilized to analyze these differences, and the effects of changing expectations on gender roles and identities. Women's Studies course; *Human Diversity*.

SOC 318 Sociology of Childhood and Adolescence (4-0-4). Explores the place of children and youth in society by examining conceptions of children that guide adults' expectations of children and social policies, and how age, gender, ethnicity/race, and social class affect the way children are treated by one another and by adults in families, schools, and neighborhoods in Western societies.

SOC 341 Juvenile Delinquency (4-0-4).
Examination of criminal and other forms of youthful misconduct in the context of the place of children and adolescents in American society. Particular emphasis placed upon the causes of various forms of delinquency and community-based prevention and corrective programs.

SOC 342 Sociology of Law (4-0-4).
Society and law, foundations of law, legislation and judicial interpretation for regulating behavior, law and social change, the legal profession. *Writing*.

SOC 343 Medical Sociology (4-0-4). The role of social and cultural factors in health, research on the use of health services, the health professions, health-care organizations, and major issues in public policy and health care. *Writing*.

SOC 344 U.S. Criminal Justice Systems (4-0-4). Prerequisite: **SOC 250**. Course provides an overview of the development and function of the criminal justice system in the United States. Examines theories of justice and punishment; emergence and development of contemporary police and court systems; structure and functioning of corrections; corrections as a form of social control; and the roles or criminal justice personnel, including police, parole, and correctional officers.

SOC 345 Social Control (4-0-4).
Course investigates the meaning of social control, both as a formal and an informal system of constraint. Offers a historical account of the emergence and development of the prison in both Europe and the United States. Considers competing historical accounts of the birth of the prison in addition to exploring contemporary issues concerning surveillance and the use of technology to exercise control over a modern, predominantly urban population. *Writing*.

SOC 346 Corporate and Governmental Deviance (4-0-4). Reviews the extent, types, causes and consequence of crime and deviant behavior both within and by organizations. The focus of the course is on sociological analysis of organizations and crime. Consideration is also given to various policy options designed to deter and/or punish organizational crime. *Writing*.

SOC 347 Sociology of Policing (4-0-4).
Examines the roles of police in American society. Includes theories on the function of law enforcement; the history and development of modern police agencies; the structure and functioning of contemporary U.S. policing; and contemporary issues in policing including police discretion, use of force, and diversity. Course emphasizes a sociological understanding of police agencies as social institutions.

SOC 348 Sociology of Corrections (4-0-4).
Examines the nature of punishment of criminal offenders in the United States. Major topics include competing perspectives on the goals of punishment; the social world of the prison, including prison subculture and prison violence; the organization of corrections and correctional administration; and the efficacy of imprisonment as a means of reducing crime, including an examination of the death penalty.

SOC 349 Women and Crime (4-0-4).
Course provides an overview of issues surrounding women and crime, as offenders, victims, and criminal justice system professionals. Students will analyze changing social views of women and women's roles, and the impact of feminism and affirmative action policies. Topics will include theories on female crime; the implications of social class and race in female offending; the ways in which women are processed through the criminal justice system; patterns of female victimization; and the roles of women in law enforcement and corrections. *Writing*.

SOC 351 Criminological Theory (4-0-4).
Provides an overview and summary of classical and contemporary theories on conforming and deviant behavior. These theories help explain why some forms of behavior are defined as deviance in society, as well as why some members of society are more prone to such forms of behavior. This examination of prevailing theories helps us understand how society defines and creates deviance, and how people become deviant.

SOC 352 Sociological Theory (4-0-4). Prerequisite: **SOC 101** or permission of instructor. Study of the work of the most important contributors to the development of sociology as an academic discipline. Required for majors. *Writing*.

SOC 353 Methods of Social Research (4-0-4). Prerequisite: **SOC 101** or permission of instructor. Introduction to the logic and practice of social research and of key methods - both qualitative and quantitative - such as surveys, experiments, participant observation, comparative case studies, and historical analysis. Required for majors.

SOC 354 Quantitative Sociological Research (4-0-4). Prerequisite: **SOC 101** or permission of instructor. Introduction to the logic of quantitative data analysis, including measures of central tendency and dispersion, measures of association, and tests of significance for appropriate levels of measurement. Required for majors.

SOC 356 Database Management for Social Research (4-0-4). Prerequisite: **SOC 354** or equivalent, or permission of instructor. Develop skills to access and manipulate machine-readable data files for social-science research, such as data from the U.S. Census Bureau and the General Social Survey. The course is a combination of lecture and lab with students learning by doing.

SOC 360 Sociology of Interpersonal Violence (4-0-4) A sociological examination of the topic of criminal violence, including approaches to and methods for studying violence, explanations of violent behavior, violence across different historical time periods and places, the social construction of violence, and violence prevention. Considers specific subtypes of violence and their control, such as robbery, sexual assault, intimate partner homicide, and serial killing.

SOC 380 Racial and Ethnic Inequality (4-0-4). *Effective Spring 2008: Prerequisite:* ***SOC 101*** *or permission of instructor.* Historical antecedents and cross-societal comparisons of patterns of dominant and subordinate groupings based upon ethnic, cultural, and racial differentiations; patterns of interaction within and among these groups with special attention to prejudice and discrimination. Black Studies course; *Human Diversity*.

SOC 382 African American Communities (4-0-4).
Analysis of the changing status of African American communities and their relationship to the class, status, and power structure of the larger community. Black Studies; *Writing*, *Human Diversity*, *African-American Experience*.

SOC 383 Political Sociology (4-0-4).
Analysis of the nature, distribution, and effects of power in contemporary society. Study of the relationship between political, economic, and cultural institutions and power. Exploration of topics including the state, political parties, voting, and collective behavior and social movements. *Writing*.

SOC 388 Sociology of Work and Organization (4-0-4).
Introduction to the sociology of work in contemporary society. Analysis of the meaning of work for men and women and of the different experiences of work in specific occupations. Topics covered include the organization of the workplace, the relationship between work and family, work and gender, and the effects of social policy on workers and employers. *Writing*.

SOC 389 Sociology of Non-Western Societies (4-0-4). An analysis of social behavior and organization in the emergent institutions of new nations outside the western hemisphere, as rooted in indigenous, colonial, and eastern cultural forms. Institutions to be examined include family, education, work, and religion, utilizing modernization and social conflict perspectives on societal change. Region to be studied will be listed in the semester course schedule. *Nonwestern Culture and Civilization*.

SOC 390 Service Learning in Sociology and Criminology (4 to 8 credits). Prerequisites: Major or minor in Sociology, junior or senior standing, and 3.0 average in Sociology. Exceptions with permission of department chairperson. Students will combine meaningful work at a public or private non-profit agency or organization that meets identified community needs, with sociological reflection and learning. In weekly seminar meetings, students will discuss their work and will learn about social, economic, and political dynamics of northeast Ohio, the range of approaches taken by community agencies to solving community problems, and related topics.

SOC 393 Special Topics in Sociology (4-0-4).
Important current trends in sociology. Topics will be announced. May be taken twice for different topics, with departmental permission.

SOC 394 Special Topics in Criminology (4-0-4).
Important current trends in criminology. Topics will be announced. May be taken twice for different topics, with departmental permission. Course counts as an elective for the Sociology-Criminology concentration and Criminal Justice minor.

SOC 455 Ethnographic Research Methods (4-0-4).
Prerequisites: Major or minor in Sociology, completion of required core courses for major or minor, junior or senior standing, and 3.0 average in Sociology. Exceptions with permission of instructor. Collecting, analyzing, and writing research reports based on qualitative data (field notes, transcripts of intensive interviews, and archives) about an organization or setting. Ethical obligations to host organizations and to the research community. Simultaneous enrollment in **SOC 490** advised.

SOC 490 Sociology Internship (4-0-4).
Prerequisites: A major in Sociology, completion of required courses for major or minor, junior or senior standing, and 3.0 average in the major. Permission of Internship Coordinator required. Written application must be submitted to the Internship Coordinator no later than six weeks before the start of the semester during which the student will be enrolled in the Internship. Course consists of field placement in public or private non-profit agencies that combine work experience, typically unpaid, with academic research and analysis. Requires a minimum of 10 hours per week on-site at the internship agency. Work expectations for each intern are contracted with instructor and placement supervisor. Regular meetings with instructor, weekly submission of work logs, readings as assigned, and final paper required. May be repeated for up to 8 credit hours.

SOC 491 Criminology Internship (4-0-4).
A major in Criminology or Sociology or minor in Criminal Justice, completion of required courses for major or minor, junior or senior standing, and 3.0 average in the major. Permission of Internship Coordinator required. Written application must be submitted to the Internship Coordinator no later than six weeks before the start of the semester during which the student will be enrolled in the Internship. Course consists of field placement in criminology related and criminal justice settings that provide firsthand experience and knowledge of careers in the area, including probation, parole, policing, juvenile and adult court systems, corrections and treatment programs. Requires a minimum of 10 hours per week on-site at the internship agency. Work expectations for each intern are contracted with instructor and placement supervisor. Regular meetings with instructor, weekly submission of daily internship logs, readings as assigned and final paper required. May be repeated for up to 8 credit hours.

SOC 496 Independent Readings in Sociology (1 to 4 credits). Prerequisites: Senior standing, major in sociology and instructor's permission. Faculty-supervised and directed selected readings in areas of special interest to the student. May be repeated for credit for a maximum of 8 credit hours.

Spanish Courses

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Faculty

Associate Professors: Delia V. Galván, Antonio Medina-Rivera, Philippa Brown Yin (Chairperson); **Assistant Professors:** Hebat El-Attar, Leilani Garcia-Turull, Stephen Gingerich, Lee Wilberschied.

Course Descriptions

Additional courses in linguistics, literature, and civilization which have no prerequisites are listed under **English Translations of Foreign Literatures**, **French**, **German**, and **Modern Languages**.

Students with native experience of Spanish may not enroll for credit in 100-level courses in Spanish. See the information concerning language skill courses in the Spanish program section.

A veces los requisitos no son exigidos a los hispanohablantes. Conviene que éstos consulten con un consejero de la Sección de Español antes de matricularse.

All students with training or experience in Spanish other than a previous course in that language at Cleveland State should continue their study in accordance with their background. Failure to seek counseling may result in schedule shifts during the first week of class.

All language courses have the following divisions and courses numbered from:

100-114 (200-214, etc.) concern the development of performance skills;

115-34 (215-234, etc.), the nature of language;

135-64 (235-264, etc.), culture and civilization;

165-89 (265-289, etc.), literature;

190-99 (290-299, etc.), independent and specialized courses.

SPN 100-200-300-400 Practicum in Spanish (1-6 Credits). Prerequisites: Permission of instructor, departmental approval. Specially arranged projects or supervised experiences for non-native speakers in Spanish conducted in the university and in the community. Examples include special work in the Instructional Media Services laboratory. Or participation in a Spanish-language play, and a study or service project involving fieldwork in one of the Spanish communities. Projects arranged between individual students and instructors; title of the project will appear on the student's transcript. Available on S/U basis only. May be repeated for credit with change of topic.

SPN 101 102 Spanish Language Skills I, II (4-2-5).
Prerequisites: SPN 101: No prerequisite; SPN 102: SPN 101 or the equivalent course with C or better. Development of proficiency in speaking, understanding, reading, and writing Spanish with contextual cultural information. Lab fee.

SPN 111 Spanish First Year Review (4-2-5). Prerequisites: **SPN 102** or two years of high-school Spanish. Increasing mastery of the basic skills of speaking, listening, reading, and writing. Basic grammar review and enrichment.

SPN 192 292-392-492 Special Topics: Study Abroad (1 to 6 Credits). Prerequisites: SPN 192: No prerequisite; SPN 292: **SPN 201**; SPN 392: **SPN 301**; SPN 492: **SPN 301**
and one literature or civilization course. Study of a particular topic in Spanish language, literature, or civilization as part of the university's Study Abroad Program. May be repeated with change of topic.

SPN 196 296-396-496 Independent Study in Spanish (1 to 6 Credits). Prerequisite: Student must have sophomore, junior, or senior standing. Proposed projects must be approved by a full-time department faculty member (who will serve as the project adviser) and the department chairman. Student-initiated supervised projects involving Spanish language or literature, such as in-depth study of a particular writer, or special readings in linguistics. Independent study may be used to cover the materials of a listed course not offered in a given year. Projects arranged between individual students and instructor; title of project will appear on the student's transcript. May be repeated for credit with change of topic.

General Prerequisites

SPN 201 and SPN 202 are prerequisites for all major courses. The student's adviser, in consultation with the instructor concerned, may grant exceptions. These courses offer content area study and further practice in conversation and composition at the intermediate level and are appropriate for both majors and non-majors.

> **SPN 201 Intermediate Spanish (4-0-4).** Prerequisite: Completion of **SPN 102** with C or better or equivalent. Readings in U.S. and Hispanic culture and practice in conversation and composition. Refinement and expansion of grammar capabilities and activities. SPN 201 may be taken before or after **SPN 202** or **SPN 203**. Foreign Culture course.
>
> **SPN 202 Literature Survey (4-0-4).** Prerequisite: Completion of **SPN 102** with C or better or equivalent. Reading strategies and a variety of short literary pieces, activities, and writings help develop the student's ability and background in Hispanic literature. Practice and expansion of grammar, skills development and writing proficiency. SPN 202 may be taken before or after **SPN 201** or **SPN 203**. *Writing*.

SPN 203 Culture and Civilization (4-0-4). Prerequisite: Completion of **SPN 102** with C or better or equivalent. Readings explore both U.S. and Hispanic customs, attitudes, and values. Ongoing review and expansion of skills development. SPN 203 may be taken before or after **SPN 202** or **SPN 201**. Foreign Culture course.

SPN 205 Intermediate Spanish Studies (4-0-4). Prerequisite: Completion of **SPN 102** with C or better or equivalent. Intermediate-level work on various topics as specified in the course catalog. Topics may address concerns of contemporary society or be specific to professions or areas of study. Grammar and skill development are appropriate to the topic. Sample topics are Spanish for social services, for business, or for the medical professions. Not for Spanish major credit.

SPN 207 Intermediate Commercial Spanish (4-0-4). Prerequisite: Completion of **SPN 102** with C or better or equivalent or permission of instructor. Introduction to the world of business and technology in Spanish speaking countries. Socio-economic issues that affect business; everyday commercial activities, such as job interviews, on-the-job routines, banking. Continued development of language skills appropriate to the course topic and level.

SPN 240 340, 440 Field Study (1 to 6 credits).
Prerequisite: Permission of instructor. Study abroad in a Western hemisphere Spanish-speaking country such as Mexico, under the auspices of Cleveland State Spanish Section faculty. Program and course content vary annually. Consult an adviser in Spanish for current information. *Nonwestern Culture and Civilization*, *Writing*.

SPN 241 341, 441 Spanish Field Study (1 to 6 credits). Prerequisite: Permission of instructor. Study abroad in Spain under the auspices of Cleveland State Spanish Section faculty. Program and course content vary annually. Consult an adviser in Spanish for current information.

SPN 245 Hispanic Resources of Cleveland (3-0-3).
Field experience with aspects of the Spanish-speaking community in the Cleveland area. Informal conversation practice. *Human Diversity*.

SPN 293 393-493 Special Topics in Spanish (1 to 4 credits). Prerequisites: SPN 193: No prerequisite; SPN 293: Completion of **SPN 102** with a C or better or permission of instructor; SPN 393: **SPN 301**; SPN 493: **SPN 301** and one literature or civilization course. Intensive study of a particular topic in Spanish language, literature, or civilization. May be repeated for credit with change of topic. Some topics offered as Linguistic Studies courses.

SPN 301 Advanced Spanish: Oral Skills Emphasis (4-0-4). Prerequisites: **SPN 302** or two of the following: **SPN 201**, **202**, **203** or the equivalent, and sophomore standing, or permission of the instructor. Advanced conversation and composition; improvement of all language skills and knowledge of grammar, with special emphasis on development of oral skills.

SPN 302 Advanced Spanish: Writing Skills Emphasis (4-0-4). Prerequisites: **SPN 301**, or **SPN 202** and either **SPN 201** or **203** or the equivalent, and sophomore standing, or permission of the instructor. Advanced conversation and composition; improvement of all language skills and knowledge of grammar, with special emphasis on development of writing skills. *Writing*.

SPN 303 Advanced Composition and Conversation for Native Speakers (4-0-4). Prerequisite: Native speaker of Spanish or permission of instructor. Practice in composition and conversation based on short literary or cultural reading. Emphasis on development of skills particular to scholastic work, such as summaries, reports, and projects. *Writing*.

SPN 315 Introduction to Spanish Linguistics (4-1-4). Prerequisites: Two from **SPN 201**, **SPN 202**, **SPN 203** and sophomore standing, or permission of instructor. Physiology and articulation of Spanish sounds; application of contrastive phonology to the teaching of Spanish, intensive pronunciation drill in the Instructional Media Services laboratory. Required for majors and students seeking teaching licensure in Spanish. Linguistics Studies course.

SPN 345 Spanish Civilization (4-0-4). Prerequisites: Two from **SPN 201**, **SPN 202**, **SPN 203** and sophomore standing, or permission of instructor. Historical interpretation of Spain through the study of geography, religion, sociology, and the arts of the Iberian Peninsula. *Western Culture and Civilization*.

SPN 346 Latin American Civilization (4-0-4). Prerequisites: Two from **SPN 201**, **SPN 202**, **SPN 203** and sophomore standing, or permission of instructor. Introduction to the historical, political, sociological, cultural, and artistic development of Latin America. *Nonwestern Culture and Civilization*.

SPN 365 Readings in Hispanic Literature (4-0-4).
Prerequisites: Any two courses on the 200 level. May be taught concurrently with ENF courses, but students will read additional selections in Spanish and will be expected to react to them in Spanish both orally and in writing. May be repeated for credit with change of topic.

SPN 371 Introduction to Spanish Literature (4-0-4). Prerequisites: **SPN 202** and either **SPN 201** or **SPN 203** and sophomore standing, or permission of instructor. Introduction to the study of Spanish literature, with concentration on principal authors and their works from the Middle Ages to the present. *Writing*, *Western Culture and Civilization*.

SPN 372 Introduction to Spanish American Literature (4-0-4). Prerequisites: **SPN 202** and either **SPN 201** or **SPN 203** and sophomore standing, or permission of instructor. Introduction to the study of Spanish-American literature, with concentration on principal authors and their works from the colonial period to the present. *Nonwestern Culture and Civilization*, *Writing*.

SPN 374 Readings in Hispanic Literature (3-0-3).
Prerequisites: Any two courses at the 200 level and sophomore standing, or permission of instructor. May be taught concurrently with ENF courses, but students will read additional selections in Spanish and will be expected to react to them in Spanish both orally and in writing. May be repeated for credit with change of topic.

SPN 402 Advanced Grammar and Stylistics (3-0-3). Prerequisite: Either **SPN 301**, **SPN 302**, or **SPN 203**, or permission of instructor. Attention to the fine points of grammar in Spanish, with an emphasis on the development of oral and written expression reflecting Spanish language patterns. *Writing*.

SPN 416 Studies in Spanish Linguistics (3-0-3). Prerequisites: **SPN 315** and sophomore standing, or permission of instructor. Analysis of aspects of Spanish grammar or usage from the perspective of modern linguistics. May be repeated for credit with a change of topic. Linguistics Studies course.

SPN 417 History of Spanish (3-0-3). Prerequisites: **SPN 315** and sophomore standing, or permission of instructor. Survey of the development of the Spanish language from Roman times to the present day. Linguistics Studies course.

SPN 445 Studies in Spanish Civilization (3-0-3). Prerequisites: **SPN 345** or **SPN 346** and sophomore standing, or permission of instructor. Study of the civilization or culture of a particular period or topic, such as "20th-Century Politics in Context," or "Civil War in Film and Art." Topics to be announced. May be repeated for credit with a change of topic.

SPN 446 Studies in Spanish American Civilization (3-0-3). Prerequisites: **SPN 345** or **SPN 346** and sophomore standing, or permission of instructor. Study of the civilization or culture of a particular period or topic, such as "Colonial Culture," "Caudillismo," "Art in the Caribbean," or "Writers of Spanish America." Topics to be announced. May be repeated for credit with a change of topic. *Writing*.

SPN 483 Studies in Spanish Literature (3-0-3). Prerequisites: **SPN 371** or **SPN 372** and sophomore standing, or permission of instructor. Study of a particular period, author, or theme, such as "The Picaresque Novel," "The Generation of 98," "Galdos," "García Lorca," "Dynamic Women in Drama." Topics to be announced in course schedules. May be repeated for credit with change of topic. *Writing*.

SPN 484 Studies in Spanish American Literature (3-0-3). Prerequisites: **SPN 371** or **SPN 372** and sophomore standing, or permission of instructor. Study of a particular period, author or theme, such as "Romanticism," "Modernism," "Darío," "García Márquez," "Magic Realism." Topics to be announced. May be repeated for credit with change of topic. *Writing*.

SPN 491 Senior Honors Project (3-0-3).
Prerequisite: For MLA Honors students only. Project must be preapproved by project adviser who is a full-time faculty member, department chair, and department curriculum committee. An independent research project developed in cooperation with faculty adviser. Completed projects will be submitted in written form and presented in a public forum.

The Department of Modern Languages offers a master of arts degree in Spanish. Please see the graduate catalog for a description of the degree program. The SPN 500- to 600-series of courses may also be taken as part of the master of education degree program in Curriculum and Instruction.

SPN 501 Research Methods (2 to 4 credits).

SPN 502 Advanced Grammar and Stylistics (4-0-4).

SPN 534 Studies in Language and Linguistics (4-0-4).

SPN 540 Field Experience Abroad (2 to 4 credits).

SPN 545 Studies in Spanish Civilization (4-0-4).

SPN 546 Studies in Spanish American Civilization (4-0-4).

SPN 564 Studies in Culture and Civilization (4-0-4).

SPN 583 Studies in Spanish Literature (4-0-4).

SPN 584 Studies in Spanish American Literature (4-0-4).

SPN 589 Studies in Literature (4-0-4).

SPN 592 Special Topics: Study Abroad (1 to 6 credits).

SPN 596 Independent Study (1 to 8 credits).

SPN 616 Seminar in Spanish Language (4-0-4).

SPN 631 Teaching College Spanish (1 to 8 credits).

SPN 665 Seminar in Hispanic Culture (4-0-4).

SPN 685 Seminar in Spanish Literature (4-0-4).

SPN 686 Seminar in Latin American Literature (4-0-4).

SPN 696 Independent Study (1 to 8 credits).

Speech and Hearing Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To Speech & Hearing Major**
- **Back to Course Index**

Faculty

Professors Emeriti: David A. Metz, Eric Sander, Arthur H. Schwartz; **Associate Professors:** Monica Gordon Pershey, Tony L. Sahley; **Assistant Professor:** Amee Shah; **Clinical Administrator:** Marilyn Vacel; **Clinical Coordinators:** Judith Heyer, Sue Ann Neff, Myrita Y. Wilhite.

Course Descriptions

SPH 131 Voice and Diction (3-0-3).
Improvement of voice, articulation, and pronunciation through analysis of each student 's speech; study of the structure and functioning of the speech mechanism; directed drills and practice.

SPH 228 Phonetics (3-0-3).
Introductory course dealing with the principles of American English sounds, transcript ion of dialects spoken in the United States; and the use of International Phonetic Alphabet. Linguistic Studies course.

SPH 229 Speech and Language Development (3-0-3). Phonological, grammatical, and semantic development in the normal child. This is a course for non-majors. SPH Majors should enroll in **SPH 349**. Linguistic Studies; *Social Science*.

SPH 231 Introduction to Communication Disorders (3-0-3).
Survey of problems in speech, language, and hearing, and their effects on communicatio n.

SPH 232 Introduction to Audiology (3-0-3).
Principles of psychoacoustics and of aural anatomy, physiology, and pathology; evaluat ion of hearing function; social and educational consequences of hearing impairment.

SPH 251 American Sign Language I (4-0-4).
Introduction to basic receptive and expressive skills utilizing fingerspelling, facial expression, body language, gestures, and signs in ASL structure. Particular emphasis will be placed on principles and techniques for com municating with hearing-impaired individuals as well as signs across cultures and geographical areas.

SPH 252 American Sign Language II (4-0-4). Prerequisite: **SPH 251** or permission of instructor. Development of ASL skills utilizing idioms, humor, and expression, with special focus on conversational signs; culture of deaf people in the U.S.; problem situations, ethical issues and responsibilities of interpreting will be addressed; experience with communi cating with deaf individuals via guest speakers and out-of-class assignments to various local deaf organizations.

SPH 331 Psychology of Speech and Hearing (3-0-3). Introduction to psychological bases of the speech and hearing processes, consideration of psychological factors in speech and hearing problems. Linguistic Stud ies course.

SPH 335 Clinical Methods in Communication Disorders (3-0-3). Prerequisites: **SPH 228**, **SPH 229**, **SPH 231**. Procedures for defining, observing, and recording behavior; planning intervention objectives; managin g behaviors; writing reports; and utilizing materials and equipment.

SPH 349 Speech and Language Development for Majors (3-0-3). Exploration of phonological, semantic, syntactic, and pragmatic language development in typically developing children. Enrollment is limited to Speech and Hearing Majors.

SPH 351 Anatomy and Physiology of the Speech and Hearing Mechanism (3-0-3). Description of the anatomy of the speech and hearing mechanism with particular emphasis on its function as it serves the speech and hearing process.

SPH 353 American Sign Language III - Intermediate Level (4-0-4). Prerequisites: **SPH 251** and **SPH 252**. Course focuses on ASL Signs, body language, and facial expressions with emphasis on more complex conversatio n situations. Practice at advanced beginner level. Study of fingerspelling.

SPH 431 Basic Speech-Language Disorders (4-0-4). Prerequisite: **SPH 229**. The nature, characteristics, and clinical management of speech disorders (articulation, voice, and fluency) and language disorders in children and adults.

SPH 434 Clinical Practicum in Speech-Language Pathology (1 credit). Prerequisite: **SPH 335**. Supervised clinical practice with clients who have speech disorders. May be repeated for a maximum of five credit hours.

SPH 435 Organization and Administration of a Public School Speech and Hearing Program (3-0-3). Prerequisite: **SPH 335**. Study of various aspects of instituting and maintaining a public-school speech-and-hearing p rogram; special emphasis on remedial reading and learning disabilities, scheduling problems, screening and case selection, group th erapy, and parent and child counseling.

SPH 438 Dialect Differences in the Schools (2-0-2).
Study of certain aspects of urban language patterns with special attention to linguist ic features of those persons described as culturally different; investigation and discussion of literature on oral language variations as r elated to listener attitudes, social and economic consequences, school success, and questions concerning approaches to the problem of sp eech and language specialists; analysis and evaluation of language samples. Black Studies course; Linguistic Studies course; *African-American Experience*, *Human Diversity*.

SPH 481 Aural Rehabilitation (3-0-3). Prerequisite: **SPH 232**. Principles, history, and methods of teaching those with hearing impairments to integrate visual and auditory cues in the comprehension of the spoken l anguage.

SPH 482 Audiometry (3-0-3). Prerequisite: **SPH 232**. Principles of air-conduction calibration, clinical procedures in pure tone audiometry impedance measurements, masking, speech audiometry, and report writing.

SPH 485 Speech and Hearing Science (3-0-3).
Introduction to the study, analysis, and measurement of components and processes invol ved in production and reception of sound. Linguistic Studies course.

SPH 486 Clinical Practicum in Audiology (1 credit). Prerequisites: **SPH 335**, **SPH 482**. Supervised clinical practice with clients who have hearing disorders. May be repeated for a maximum of five credit hours.

SPH 489 Aural Rehabilitation Practicum (1 credit). Prerequisites: **SPH 335**, **SPH 481**. Supervised experience in the evaluation and treatment of communication disorders related to hearing loss. May be repeated for a ma ximum of four credit hours.

SPH 495 Speech Seminar (1 to 3 credits). Prerequisites: Senior standing and Speech and Hearing major.

SPH 497 Senior Capstone Portfolio (1 credit).
Prerequisites: Senior Standing and Speech and Hearing major. Student will create a por tfolio in core areas of speech-language pathology.

Urban Services Administration Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To Urban Services Administration Major**
- **Back to Course Index**

Faculty

Professors:
Mark S. Rosentraub (Dean), Jeffrey L. Brudney (Levin Chair), Sanda Kaufman (Director, MAES Program), W. Dennis Keating (Associate Dean and Director, MSUS Program), Norman Krumholz, Sylvester Murray, Roberta Steinbacher, Camilla Stivers; **Associate Professors:** Jennifer Alexander, Virginia O. Benson, Mittie Olion Chandler (Director, Urban Child Research Center), Michael V. Wells (Director, Undergraduate Programs).

Course Descriptions

USA 380 Urban Family Development (4-0-4).
Community building through a holistic approach to family development in urban communities. Cross-listed with **UST 380**.

USA 386 Practicum in Urban Services Administration (Variable 2-24 credits). Prerequisite: permission of instructor. Independent experiential learning involving theory and practice in nonprofit administration, communication skills, and analytical tools for addressing issues and problems in public safety services and systems.

USA 410 Proposal Writing and Program Development (4-0-4). Examination of the structure and content of proposals, sources of funding, foundation decision-making, program evaluation, and social/institutional change in the urban environments; independent preparation of proposals and application of evaluation procedures. Cross-listed with **UST 410**. *Writing*.

USA 433 Conflict Management (4-0-4).
Course examines conflict as an omnipresent component of any decision-making environment. Offers tools for understanding the nature of conflict, devising individual and group strategies that minimize the destructive consequences of conflict, and identifying solutions that are satisfactory to all involved. Includes lectures, discussions, and simulation games. Cross-listed with **PSM 433** and **UST 433**.

USA 452 Management of Urban Organizations (4-0-4). Developing critical management skills; problem-solving, communication, and conflict resolution; introduction to Total Quality Management. Cross-listed with **PSM 452** and **UST 452**.

USA 453 Managing Urban Diversity (4-0-4).
Study of diversity including circumstances faced in urban settings that are exacerbated or affected by diversity factors; exploration of a range of social, political, and economic issues related to diversity. Cross-listed with **PSM 453** and **UST 453**. *Human Diversity*.

USA 455 Gender and Leadership (4-0-4).
Examination of factors influencing public acceptance of women in leadership positions; discussion of strategies for effective leadership in diverse communities, and relationships between priorities of the urban community and society's perception of women's roles. Course includes guest lectures by women currently in positions of leadership. Cross-listed with **UST 455**. Women's Studies course; *Human Diversity*.

USA 456 Institutional Development of the Nonprofit Organization (4-0-4). Examines nonprofit organizations as community institutions, and the role of institutional management and leadership in their development; the nature of leadership and management in the nonprofit sector; fundraising and financial management; governance and the respective roles of board, staff and volunteers; the political, economic and inter-organizational environment; community relations; needs assessment; and planning and performance measurement. Cross-listed with **UST 456**.

USA 459 Budgetary Policy (4-0-4).
Revenue, expenditure, and debt structures of American cities; theories of public budgeting; types of budgets and budget formats; and typical components of a budget document. Cross-listed with **UST 459**.

USA 490 Human Services Cooperative Education Internship (Credit as Arranged). Prerequisite: Permission of instructor. Work experience in urban agencies for urban services administration majors.

USA 493 Human Services Issues (4-0-4).
Special topics in human services, including citizen advocacy, mental health, substance abuse, and domestic violence. Topics will be listed in the semester course schedule.

USA 496 Research in Human Services (Credit as Arranged). Prerequisite: Permission of instructor. Special research involvement in ongoing projects or specially developed projects for urban services administration majors under supervision of a faculty director.

USA 497 Readings in Human Services (Credit as Arranged). Prerequisite. Permission of instructor. Independent study for urban services administration majors.

Urban Studies Courses

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- **Course Descriptions**
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Faculty

Professors:
Mark S. Rosentraub (Dean), Paul Bosela, William Bowen (Director, Ph.D. Program), Jeffrey L. Brudney (Levin Chair), Michael Gates, Edward Hill, Miron Kaufman, Sanda Kaufman (Director, MAES Program), W. Dennis Keating (Associate Dean and Director, MSUS Program), Norman Krumholz, Larry Ledebur, Helen Liggett, Sylvester Murray, Robert A. Simons, Michael Spicer, Roberta Steinbacher, Camilla Stivers, Michael Tevesz; **Associate Professors:** Jennifer Alexander, Virginia O. Benson, Mittie Olion Chandler (Director, Urban Child Research Center), Lawrence Keller, Wendy Kellogg, (Director, MUPDD Program), Harry Margulis, Brenda Marshall, Nancy Meyer-Emerick, Brian A. Mikelbank, Heidi Gorovitz Robertson, Vera Vogelsang-Coombs (Director, MPA Program), Michael Walton, Alan Weinstein (Director, JD/MAES, JD/MPA and JD/MUPDD Programs), Michael V. Wells (Director, Undergraduate Programs); **Assistant Professors:** Ronnie Dunn, Shari Garmise, Sugie Lee, Jessica Sowa.

Course Descriptions

UST 102 Professional Writing (3-0-3).
Basic elements of effective technical writing, decision memoranda, request for proposals, and annual reports. Equivalent to **ENG 102**. *English*.

UST 190 Analysis of Experiential Learning in Urban Studies (2-0-2). Prerequisite: Permission of instructor. Seminar designed to assist adult students in clarifying career, personal and educational goals with emphasis on describing college-level learning from prior experience and documenting this learning for assessment. For Urban Studies majors.

UST 200 Introduction to Urban Studies (4-0-4).
Introduction to the study of cities using an interdisciplinary approach that includes history, sociology, planning, economics, and political science; emphasis on the roots of contemporary African-American community problems; integration of the field of urban studies with the student's everyday experience. *Social Science*, *African-American Experience*, *Human Diversity*.

UST 202 Cleveland Past, Present, Future: The African-American Experience (4-0-4). Cleveland's political, economic, and racial history as typifying older American industrial cities; origins and dynamics of periods of growth and decline with emphasis on race, housing, and poverty. *Social Science*, *African-American Experience*, *Human Diversity*.

UST 240 Democracy and the Bureaucratic City (4-0-4). The rise of the modern city in terms of the organizations that have dominated its life, the shaping of the public and private sectors by large formal organizations, and the roles they plan in the life of the city and its people. *Western Culture and Civilization*.

UST 250 The City in Film (4-0-4).
Examination of the work of contemporary artists in films which depict life in urban America; discussion of visual presentations through the perspectives of city planning, art, politics, architecture and other fields of study. *Arts and Humanities*.

UST 251 The African-American Image on Film (4-0-4). Examination of the work of contemporary artists in films which depict life in urban black America; discussion of visual presentations through the perspectives of city planning, architecture, politics and other fields of study. *Arts and Humanities*, *African-American Experience*, *Human Diversity*.

UST 259 Natural History of the Cleveland Area (3-6-4). General geology, ecology, flora, and fauna of the Cleveland area; field trips to parks and museums to study local rock formations, forest types, and plant and animal identification. Designed primarily for nonscience majors. Cross-listed with **ENV 259**. *Natural Science with Lab*.

UST 289 Physical Geography (3-0-3).
Discussions of physical environments, stressing relationships to people; study of the surface of the earth, including meteorology, science of weather, and geomorphology, science of landforms. Formerly **GEO 209**. *Natural Science*.

UST 290 Urban Geography (4-0-4).
Social, economic, and political structures operating within cities; geographical definitions, location theories, population densities and migrations, and land-use patterns; identification of issues, problems, and policies related to urban settlements. *Social Science*, *Writing*.

UST 296 Urban Field Experience (credit as arranged). Prerequisite: Permission of instructor. Independent study for urban studies majors.

UST 300 Economics of Policy Analysis (4-0-4).
Examination of the economic content of urban and regional policy and administrative issues; housing and land use; labor markets, income distribution and poverty; education; health care; pollution; discrimination; municipal finance; municipal service delivery; and crime.

UST 301 Urban Spatial Systems (4-0-4). Prerequisite: **UST 300** or **ECN 202**. Evolution and changing form of the metropolitan region; linkages between cities and their suburbs, and industrial/occupational structure and labor market flows; examination of appropriate public and private sector roles and responsibilities and their associated costs.

UST 302 Contemporary Urban Issues (4-0-4).
The physical, social, and economic dimensions of the urban crisis emphasizing minority communities; traditional and non-traditional approaches to problem definition and solution, techniques for understanding and shaping the physical environment, and constraints to problem-solving in urban areas. Cross-listed with **PSM 302**. *Writing*, *Human Diversity*, *African-American Experience*.

UST 303 Urban Service Learning (4-8-4).
Curriculum-based community service course; students will have the opportunity to work as volunteers with community groups and agencies, and will be guided in examining their experiences and concepts of community development, volunteerism, and citizenship.

UST 304 Race and Sports in America (4-0-4).
A look at race relations in 20th century America through the prism of sports; past and current experiences of blacks in a variety of sports, including boxing, baseball, football, basketball, golf, tennis, horse racing, hockey, and track and field. *Human Diversity*, *African-American Experience*.

UST 374 American Architecture (4-0-4).
A historical analysis of the built environment from the 17th century to the present; various styles and types of buildings are related to time and place, defining and identifying central characteristics, special function, cultural expression, technology and changes in architectural practice. Cross-listed with **ART 374**. *Western Culture and Civilization*.

UST 375 Cities and Planning (4-0-4).
Course examines what humans have done to form the communal environment since ancient times; social, symbolic, functional, and biotechnical domains as generators of architecture and urban planning; value systems in environmental change; policies, plans, and design proposals as record of the humanized environment. Cross-listed with **ART 375**. *Western Culture and Civilization*, *Writing*.

UST 380 Urban Family Development (4-0-4).
Community building through a holistic approach to family development in urban communities. Cross-listed with **USA 380**.

UST 381 Practicum in Urban Planning (Credit as Arranged). Prerequisite: Permission of instructor. Independent experiential learning involving theory and practice in urban planning, design and/or development activities. For Urban Studies majors only.

UST 382 Practicum in Urban Management (Credit as Arranged). Prerequisite: Permission of instructor. Independent experiential learning involving theory and practice in urban management, public administration, policy development and/or government finance. For Urban Studies majors only.

UST 383 Practicum in Environmental Studies (Credit as Arranged). Prerequisite: Permission of instructor. Independent experiential learning involving urban environments. For Urban Studies majors only.

UST 384 Practicum in Urban Studies (Credit as Arranged). Prerequisite: Permission of instructor. Independent experiential learning involving theory and practice in a specific area of urban studies, such as criminal justice, urban construction management, management-labor relations, community organizing, economic development, or conflict management. For Urban Studies majors only.

UST 401 Computer Applications for Urban Research (4-0-4). Introduction to the use of the computer with software packages relevant to the study of the city; text editing and word processing; data base management; tabular displays and computer graphics.

UST 403 Cartography and Graphics (2-4-4). Prerequisite: **UST 401** or permission of instructor. The principles of map-making and the use of presentation graphics in urban planning and research applications; the use of maps and graphics in the analysis of social, economic, and demographic associations of the built environment; basic elements of geographic information systems.

UST 404 Urban Data Analysis (4-0-4).
Urban research decisions and procedures; procedures for obtaining empirical knowledge about urban issues and ways to extract the meaning of urban data.

UST 405 Exploratory Analysis of Local and Regional Competitiveness(4-0-4). Prerequisite: **UST 404** (or UST 601 for graduate students). Topically, focuses on enhancing our ability to understand the condition and competitiveness of the region. Methodologically, focuses on Exploratory Data Analysis (EDA) and Exploratory Spatial Data Analysis (ESDA). Taken together, this class deals with the data relevant to assessing regional competitiveness and the innovative methods designed to extract information from those data.

UST 410 Proposal Writing and Program Development (4-0-4). Examination of the structure and content of proposals, sources of funding, foundation decision-making, program evaluation, and social/institutional change in the urban environments; independent preparation of proposals and application of evaluation procedures. Cross-listed with **USA 410**. *Writing*.

UST 415 Neighborhood Analysis (4-0-4).
The concept and function of community in modern urban life; construction of a neighborhood profile using census data, tax and land records, maps, surveys, interviews, and visual materials; methods of analyzing community social structure.

UST 416 Cleveland Neighborhoods and Neighborhood Institutions (4-0-4). Exposes students to the diverse areas of the City of Cleveland through an exploration of its neighborhoods and emphasizes the role of community development corporations and faith communities as factors in stability and growth. *Writing*.

UST 418 Urban Planning (4-0-4).
The nature of physical planning and its relationship to social and economic planning; steps in the planning process; levels of planning; preparation and criticism of plans and planning studies.

UST 419 Neighborhood Planning (4-0-4).
The process and techniques for the creation and implementation of neighborhood organizations; an introduction to local government organizations and private institutions which support neighborhood planning and federal, state, and local programs which fund neighborhood planning and development programs.

UST 420 Urban Design Seminar (4-0-4).
An introduction to the topic of urban design as it relates to the private land development process; financial incentives offered by governments to stimulate development in American cities; analysis of development case studies in Cleveland, including market research and cash flow analysis to determine the feasibility of projects. *Writing*.

UST 422H Rebuilding Greater Cleveland (4-0-4).
Prerequisite: Honors standing or permission of university Honors Program. Rebuilding Greater Cleveland, the nation's second or third most vibrant economy in the 1920's, requires an understanding of how and why wealth develops, what leads to its transformation, and how a region that was dominant declines. These understandings of urban and economic development will help students understand the pathways for Northeast Ohio, Cleveland, and developing economies in an era of global competition.

UST 433 Conflict Management (4-0-4).
Examines conflict as an omnipresent component of any decision-making environment; tools for understanding the nature of conflict; devising individual and group strategies that minimize the destructive consequences of conflict; and identifying solutions that are satisfactory to all involved; includes lectures, discussions, and simulation games. Cross-listed with **PSM 433** and **USA 433**.

UST 434 Introduction to Geographic Information Systems (4-0-4). Prerequisite: **UST 401** or permission of instructor. Principles of Geographic Information Systems (GIS) as a computer tool to provide spatial information analysis; laboratory instruction in the use of GIS software to aid in the analysis of workplace problem situations.

UST 435 Environmental Policy and Administration (4-0-4). Administration of the organizations charged with responding to environmental regulations and/or crises; decision- and policy-making processes within and around these organizations, especially as

they relate to conflicting interests and values. Cross-listed with **ENV 435**. *Writing*.

UST 436 Urban Sustainability (4-0-4).
Presents the values, trends and methods of planning for environmentally sustainable cities and regions. Focuses on urban sustainability and built form, including buildings, designed green spaces, urban water systems, energy and economic change. Students become familiar with processes that generate the physical landscape and the impact of human settlements on natural landscapes. Local, state, and federal laws and regulations relevant to land use and resource protection are featured. Students become familiar with planning methods and their use.

UST 440 Environment and Human Affairs (4-0-4).
Challenges to decision-makers in environmental policy-making; strategies appropriate to various decision situations, analysis of decision-making; negotiation and mediation techniques. Cross-listed with **ENV 440**.

UST 441 Environmental Planning (4-0-4).
Exploration of principles and processes of environmental planning, focusing on urban, metropolitan and regional levels; presentation of frameworks and techniques in areas such as site-plan review, urban design, urban environmental restoration, open space and habitat preservation, water quality, bioregionalism, and growth management; development of organizing principles for environmentally sustainable metropolitan regions. Cross-listed with **ENV 441**.

UST 449 Comparative Public Administration (4-0-4). Examines the approaches to and processes of public administration with a comparative perspective, in developed and developing countries, with particular reference to American, African and European contexts. The course uses public bureaucracy as a focus for comparison. Major topics include constitutional basis and significance of international bodies on public administration, federal/central, provincial/state and local government systems, process of public policy formulation, administrative structures, and the role of career civil servants and civil society in the management of public policies.

UST 452 Management of Urban Organizations (4-0-4). Developing critical management skills, problem-solving, communication, and conflict resolution; introduction to Total Quality Management. Cross-listed with **PSM 452** and **USA 452**.

UST 453 Managing Urban Diversity (4-0-4).
Study of diversity, including circumstances faced in urban settings that are exacerbated or affected by diversity factors; exploration of a range of social, political, and economic issues related to diversity. Cross-listed with **PSM 453** and **USA 453**. *Human Diversity*.

UST 455 Gender and Leadership (4-0-4).
Examination of factors influencing public acceptance of women in leadership positions; discussion of strategies for effective leadership in diverse communities, relationships between priorities of the urban community and society's perception of women's roles; course includes guest lectures by women currently in positions of leadership. Cross-listed with **USA 455**. Women's Studies course; *Human Diversity*.

UST 456 Institutional Development of the Nonprofit Organization (4-0-4). Examines nonprofit organizations as community institutions, and the role of institutional management and leadership in their development; the nature of leadership and management in the nonprofit sector; fundraising and financial management; governance and the respective roles of board, staff and volunteers; the political, economic and inter-organizational environment; community relations; needs assessment; and planning and performance measurement.

UST 458 Urban Policy (4-0-4).
Examination of current state and local political issues focusing on Ohio; perspectives on the legislative, judicial, and executive branches, as well as tax and spending policies, human services and education delivery systems, and the formulation of public transportation and environmental policies. *Writing*.

UST 459 Budgetary Policy (4-0-4).
Revenue, expenditure, and debt structures of American cities, theories of public budgeting, types of budgets and budget formats, and typical components of a budget document. Cross-listed with **USA 459**.

UST 463 Housing Analysis (4-0-4).
Housing analysis is explored from a regional perspective within a framework of supply, demand and population movement; changes produced in neighborhoods and communities as a result of regional housing dynamics are considered, as are the impact that public policies have on regional housing dynamics and community change.

UST 472 Canadian Studies (4-0-4).
Comparative study of selected United States and Canadian urban issues, such as housing, urban planning, and historic preservation. Topics will be listed in the semester course schedule.

UST 473 Columbus Seminar (4-0-4).
Prerequisite: Permission of instructor. Week-long intensive governmental experience in Columbus, Ohio. Participants learn about public policy issues firsthand from state legislators, state administrators, public interest group representatives, members of the news media, and others engaged in Ohio's policy-making process. Offered over spring break; preparatory and follow-up sessions required.

UST 474 Washington Seminar (4-0-4).
Prerequisite: Permission of instructor. On-site study of federal urban policy issues. One week in Washington, D.C., exposes students to critical analysis of the federal budget and legislative process, intergovernmental relations, problems, and current urban policy issues. Offered in summer term; preparatory and follow-up sessions required.

UST 475 Cleveland: Form and Development of an Urban Environment (4-0-4). Prerequisite: **ART 375** or permission of instructor. A workshop which examines aspects of visual communication relative to the city. Cross-listed with **ART 475**. *Writing*.

UST 476 Historic Preservation (4-0-4).
The roots of the preservation movement in American cities and its historical antecedents; preservation policies at the federal, state, and local levels of government; emphasis on Cleveland's historic districts, buildings, and landmarks.

UST 477 Regional Issues (4-0-4).
An overview of the phenomenon of suburban real estate development, sprawl and out migration; involves students in discussion with officials and specialists who represent various perspectives on the subject.

UST 478 Sacred Landmarks (4-0-4).
Exposes students to urban art, culture, history, and ethnicity attributed to Cleveland's sacred landmarks; examination of sacred landmark preservation efforts in Cleveland, in other American cities, and in cities worldwide. *Western Culture and Civilization*.

UST 482 Ohio Certified Public Manager (Variable 1-15 credits). Students earn 15 credits for completing the Ohio Certified Public Manager Program.

UST 484 Ohio Fire Executive (Variable 1-15 credits). Students earn 15 credits for completing the Ohio Fire Executive Program.

UST 486 GIS Capstone Seminar (4-0-4). Prerequisites: **UST 401**, **UST 403**, and **UST 434**. Focus on problem solving skills using GIS software. Use GIS analytical skills to design, manage, and develop GIS projects. Students are assigned to research and lead discussions on GIS topics related to issues or applications of their project.

UST 489 Advanced Senior Seminar (2-2-4).
Prerequisite: Senior standing. Capstone course coordinating knowledge and skills gained through fulfillment of the requirements for a major in Urban Studies.

UST 490 Urban Cooperative Education Internship (Credit as arranged). Prerequisite: Permission of instructor. Work experience in urban agencies for Urban Studies majors.

UST 493 Urban Issues (Variable credit).
Special topics in urban studies, including housing rehabilitation, urban planning, law and urban policy, drug abuse, and economic development. Topics will be listed in the semester course schedule.

UST 494 Levin Chair Seminar (4-0-4).
Current topics and issues in urban studies led by the Albert A. Levin Professor of Urban Studies and Public Service. Topics will be listed in the semester course schedule.

UST 496 Urban Research (Credit as arranged).
Prerequisite: Permission of instructor. Special research involvement in ongoing projects or specially developed projects for Urban Studies majors under supervision of a faculty director.

UST 497 Urban Readings (Credit as arranged). Prerequisite: Permission of instructor. Independent study for Urban Studies majors.

Women's Studies Courses

On this page:

- **Faculty**
- **Course Descriptions**
- **To Women's Studies Major**
- **Back to Course Index**

Faculty

Professors: John Gerlach (Emeritus), Sarah Matthews, Carl Rak, Roberta Steinbacher, Mary Ellen Waithe; **Associate Professors:** Jennifer Alexander, Chien-Chen Bowen, Elizabeth Cagan, Rachel Carnell, Tama Engelking, Delia Galvan, Adrienne Gosselin, Mareyjoyce Green (Program Director), Barbara Hoffman, Teresa LaGrange, Elizabeth Lehfeldt, Shelia Schwartz, Diane Steinberg, Sarah Toman, Robert Wheeler, Phillipa Yin; **Assistant Professor:** Dana J. Hubbard; **Instructor:** Cindy Farina; **Lecturers:** Paula Bloch, Erika Feigenbaum, Margaret Payerle, Dorothy Salem; **Term Instructor:** Beverly Bow, Marnie Salupo Rodriguez.

Course Descriptions

WST 151 Introduction to Women's Studies (4-0-4). The field of women's studies involves the study of women from the perspective of women themselves, and related research and scholarship. The course is a broadly interdisciplinary examination of the roles of women as their status and roles are socially constructed, and as women can determine them to be. There is emphasis upon related changes in gender relations in contemporary society. *Human Diversity*.

WST 351 Practicum: Women's Studies (4-0-4).
Prerequisite: Approval of the Women's Comprehensive Program Director. Required for major in Women's Studies. Field experience involving the application of theory and practice in a specific area of Women's Studies. For Women's Studies students.

WST 393 Special Topics (4-0-4).
Analysis of issues in women's studies; topics vary and include: The Women's Movement, Women and International Social Development, and The Third Wave: Voices from the Next Generation. Course may be taken for credit more than once, but no single topic may be repeated. Topics will appear in course schedule.

WST 495 Advanced Seminar in Women's Studies (4-0-4). Prerequisites: Senior or graduate standing, permission of instructor. Required for major and for minor in Women's Studies. Review and synthesis of prior work in Women's Studies. The impact of Women's Studies in higher education is discussed with emphasis on substantive and methodological contributions, initiation of new research frontiers, as well as an overview of cross-cultural perspectives and current issues.

WST 496 Independent Study (1 to 4 credits).
Prerequisites: Senior standing, written permission of instructor and Women's Comprehensive Program Director. Faculty supervised and directed selected readings in areas of special interest and topics as arranged with an instructor on an individual basis.

Contact CSU

General Information
Board of Trustees
President's Office
Provost's Office
Administration
Campus Directory

GENERAL INFORMATION

Cleveland State University
2121 Euclid Avenue
Cleveland, OH 44115-2214
216.687.2000

Emergencies | **Admissions** | **Colleges** | **Other Contacts**

A comprehensive directory of faculty and staff and a listing of departments can be accessed in the Campus Directory.

Emergencies

University Police
911 or 8-911 (CAMPUS EMERGENCY CALLS ONLY: Fire, Police, Medical, Hazmat Spills)
216.687.2020 (safety on campus, safety escorts, lost and found)

Emergency Procedures (Office of Risk Management)
216.875.9801

Snow & Emergency Closing Information
216.687.2000

Emergency Maintenance Contacts
216.687.2500 (Facilities Operations Dispatch; Monday-Friday, 7:45 a.m. - 4:45 p.m.)
216.687.2020 (University Police; nights and weekends)

Emergency Auto Service
216.687.2023 (Monday-Friday, 8:00 a.m. - 5:00 p.m.)
216.687.2020 (evenings and weekends)

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Admissions

Undergraduate Students
216.687.5411
888.CSUOHIO (888.278.6446)

Graduate Students
216.687.5599

Law Students
216.687.2304

International Students
216.687.3910

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Colleges

Nance College of Business Administration
216.687.3786

College of Education and Human Services
216.687.4625

Fenn College of Engineering
216.687.2555

College of Graduate Studies
216.687.9370

Cleveland-Marshall College of Law
216.687.2344

College of Liberal Arts and Social Sciences
216.687.3660

College of Science
216.687.5580

Maxine Goodman Levin College of Urban Affairs
216.687.2136

Division of Continuing Education
216.687.4850

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Other Contacts

Academic Advising
216.687.2402

Affirmative Action
216.687.2223

Alumni Affairs
216.687.2078

Athletic Department
216.687.4800

Bookstore
216.687.2128

Call Center
216.687.5050

Campus Tours
216.687.2295

Campus Watch
216.687.2020

Campus411
216.687.5411

Cashier

216.687.3615

Conference Services
216.687.2268

Counseling and Testing Center
216.687.2277

Development
216.687.3557

Facilities Operations
216.687.2500

Financial Aid
216.687.3764

Health & Wellness Services
216.687.3649

Human Resources Development & Labor Relations
216.687.3636

Judicial Affairs
216.687.2048

Libraries
216.687.2478 (University Library)
216.687.2250 (Law Library, Cleveland-Marshall College of Law)

Mail Department
216.687.3586

Marketing and Public Affairs
216.687.2290

Ombudsperson
216.687.4665

Parking Services
216.687.2023

Residence Life
216.523.7332

Student Life
216.687.2048

Web Site
216.523.7226

Wolstein Center
216.687.9292

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Cleveland State University

engagedlearning™

Cleveland State University campus core represented by dark green areas

• • • Campus Innerlink: Follow Detour Signs • • •

Key to Buildings
Alphabetical Listing

For Building Updates, visit www.csuohio.edu/campus_map_tour

- **Advanced Manufacturing Center** ..... AM
- **AMC Annex** ..... AA
- **Art Building** ..... AB
- **Bookstore** ..... BS
- **Business College** ..... BU
  Monte Ahuja Hall, Nance College of Business Administration
- **CAMP Building** ..... CM
- **Chester Building** ..... CB
- **Chester Building Annex** ..... CA
  Parking Services, Cleveland State Police
- **Cole Center** ..... CE
  Joseph E. Cole Center for Continuing Education
- **Fenn Tower** ..... FT
- **Health Sciences** ..... HS
- **Keith Building** (Temporary) ..... KB
- **Law Building** ..... LB
- **Law Library** LL
- **Library** ..... RL
- **Main Classroom Building** ..... MC
- **Mather Mansion** ..... MM
- **Music & Communication** ..... MU
  Waetjen Auditorium, Drinko Recital Hall
- **Parker Hannifin Administration Center** ..... AC
- **Parker Hannifin Hall** ..... PH
- **Physical Education** ..... PE
  Robert Busbey Natatorium, Woodling Gymnasium
- **Plant Annex** ..... PA
- **Plant Services** ..... PS
- **Recreation Center** ..... RC
- **Rhodes Tower** ..... RT
- **Rhodes West** ..... RW
- **Science Building** ..... SI
- **Science & Research Center** ..... SR
- **Stilwell Hall** ..... SH
- **Theater Arts Building** ..... TA
- **Urban Affairs Building** ..... UR
  Maxine Goodman Levin College of Urban Affairs
- **Viking Hall** ..... VH
- **Wolstein Center** ..... WO
  Bert L. & Iris S. Wolstein Center, Henry A. Goodman Arena
- **Wolstein Center Pavilion & Banquet Center** ..... WP
  Gerald H. Gordon Conference Pavilion

★ ..... Emergency Telephones

☕ ..... CSU Dining Locations

PARKING

For current pricing and lot updates, visit www.csuohio.edu/parking

Parking fees. Faculty, staff and students may purchase pre-paid parking hang tags or register for a must-pay hang tag in the Parking Office (CA). Parking fees are applicable on evenings and weekends.

Only pre-paid parking is permitted in the campus core Monday - Friday, 7 a.m. to 2 p.m., with the exception of the EG visitor lot.

Visitor Parking is available in the East Garage (EG) and Lot S3A(12) and in Lot A(72) (meters only) and Lot V(70) (meters only).

State of Ohio Disabled Parking Permits, both temporary and long term, are required for parking in areas designated for persons with disabilities. Permits can be obtained from the Ohio BMV at 1-800-598-8247.

The application can be downloaded from http://bmv.ohio.gov/pdf_forms/4826.pdf.

Underline denotes lots as part of the campus core

- **Lot A**(72) Residence Parking ♿ Visitor Parking (meters only)
- **Lot B**(64) CLOSED (Under Construction)
- **Lot C**(62) Handicap Parking only ♿
- **Lot D**(71) Staff, Faculty, and Students
- **Lot EG**(EG) Staff, Faculty, Students, Visitors* ♿
- **Lot F**(63) Staff and Faculty** Students after 2:00 p.m.
- **Lot G**(60) Staff and Faculty** ♿ Students after 2:00 p.m.
- **Lot I**(61) Staff and Faculty
- **Lot J**(53) CLOSED (Under Construction)
- **Lot M**(50) Staff, Faculty, and Students ♿
- **Lot O**(58) Staff and Faculty
- **Lot S1**(54) Staff, Faculty, and Students ♿
- **Lot S2**(51) Staff, Faculty, and Students ♿
- **Lot S3B**(11) Staff, Faculty, and Students ♿
- **Lot S3A**(12) Visitor Parking only ♿
- **Lot V**(70) Visitor Parking (meters only)
- **Lot Y**(57) Staff, Faculty, and Students ♿
- **Lot Z**(40) Staff, Faculty, and Students
- **Lot AA**(90) Staff, Faculty, and Students ♿
- **Lot CC**(21) Handicap Only
- **Lot HH**(10) Staff, Faculty, and Students ♿
- **Lot KK**(31) Residence Parking Only ♿
- **Lot PF**(PF) Staff, Faculty, and Students ♿
- **Lot REC**(65) Staff, Faculty, Students, Visitors** ♿ (Meters only, two hours maximum)
- **Lot U**(20) Staff and Faculty ♿
- **Lot UC**(22) CLOSED (Under Construction)
- **Lot WG**(WG) Staff, Faculty, and Students* ♿

Accessible Parking Info
♿ Reserved parking spaces available
* Garage parking
** Under the building parking