## **CUYAHOGA COMMUNITY COLLEGE**

# Transfer Guide for Engineering Degree Programs at Cleveland State University

Chemical, Civil, Electrical, Computer\*, Industrial, and Mechanical Engineering Degree Programs Available. Electronic Engineering Technology and Mechanical Engineering Technology Programs.

CSU GENERAL EDUCATION REQUIREMENTS									
Major	Area		CCC Courses						
Chemical, Civil, Industrial, Mechanical	Social Sciences Writing Across the Curriculum (WAC)	Select 1 course from list at right. WAC requirement satisfied by 3 required courses taken at CSU.	ANTH 1010, 1020, 1030, 2010 ECON 1210, 1220, 2610, 2620 GEOG 1010, 1030, 1050, 1510 JMC 1011, 1610 POL 1010, 1020, 1030, 2060, 2070 PSY-all except 2800 and 2820						
Electrical, Computer	(1126)	Select no course from list at right.  Take 2 courses at CSU as WAC/Social Sciences.	SOC-all but 1820, 2820, 2830 SPCH 1000, 1210, 2160 SSCI-1030, 1040 UST 1010, 1020, 2020, 2070						
Technology		Select 3 courses from list at right, including 1 from underlined courses.							
All (Including Technology)	Western Culture Arts & Humanities	Select one course from list at right.	ART 2020, 2030 ENG 2310, 2320, 2350, 2360, 2710 HIST 1010, 1020, 1510, 1520, 1610, 2050, 2060, 151H, 152H MUS 1010, 2500, 2510 REL 2010, 2020 THEA 2210, 2220						
All (Including Technology)	Nonwestern Culture Arts & Humanities	Select one course from list at right.	ART 1040 ENG 2700 HIST 1700, 2080 MUS 1050 PHIL 2010 REL 2030, 2040, 2050						
All (Including Technology)	African American Experience Social Science	Select one course from list at right.	JMC 1610 SOC 2310, 2550 UST 1010, 2020						
All (Not needed for Technology)	African American Experience & Human Diversity	Select one course from list at right. Students who transfer in 90 or more quarter hours (60 or more semester hours) do not need this course.	JMC 1610 SOC 2310, 2550 UST 1010, 2020						

#### **Foreign Language Deficiency**

CSU 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 CSU.

# **See Other Side for More Information** →

### **CUYAHOGA COMMUNITY COLLEGE**

# Transfer Guide for Engineering Degree Programs at Cleveland State University

Chemical, Civil, Electrical, Computer\*, Industrial, and Mechanical Engineering Degree Programs Available. See separate guide for Electronic Engineering Technology and Mechanical Engineering Technology Programs.

Cleveland State University				Cuyahoga Community College				
Engineering Majors requiring the course	Course No.	Course Title	Semester Credit Hrs.	Course No.	Course Title	Semester Credit Hrs.		
COLLEGE ENGLISH								
All Civil, Electrica	al, ENC	G 101 English I G 102 English II	4 3	ENG 1010 ENG 1020		3		
Computer, Ind Chemical and Mechanical		E 102 Technical Writing an Professional Comm.	d 2	ENG 1020 or ENG 2151		3		
NATURAL SCIENCE								
All	CHM 261	General Chemistry I	4	CHEM 1300	General Chemistry I	4		
All	CHM 266	General Chemistry I Lab	1	CHEM 130L	General Chemistry Lab I	1		
Chemical	CHM 262	General Chemistry II	4	CHEM 1310	General Chemistry II	4		
Chemical	CHM 267	General Chemistry II Lab	1	CHEM 131L	General Chemistry II/Lab	1		
Chemical	CHM 331	Organic Chemistry I	4	CHEM 2300	Organic Chemistry I	5		
Chemical	CHM 336	Organic or Adv. Lab I	2					
Chemical	CHM	Advanced Chemistry Electiv	ve 3	CHEM 2310	Organic Chemistry II	5		
All	PHY 241	University Physics I	5	PHYS 2310	General Physics I	5		
	PHY 242	University Physics II	5	PHYS 2320	General Physics II	5		
MATHEMATICS								
All	MTH 181	Calculus I	4	MATH 1610	Calculus I	5		
All	MTH 182	Calculus II	4	MATH 1620	Calculus II	5		
CHE, CVE, EE,	MTH 283	Multivariable Calculus for Engineers	2	MATH 2310	Calculus III	4		
MCE Electrical, Computer	MTH 284	Matrices for Engineers	2	MATH 2410	Linear Algebra	3		
All	ESC 250	Differential Equations	3	MATH 2520	Differential Equations	3		
ENGINEERING								
All, except Computer	ESC 151	ANSI C	3	ITMP 2670	C/C++ Programming	4		

<sup>\*</sup>New degree program -first graduating class will be Spring 2004. Consult advisor at CSU for details (216) 687-2555.

#### See Other Side for More Information →

<u>IMPORTANT NOTE:</u> The engineering courses have many prerequisites, which are strictly enforced. You will need a <u>minimum of 2.5 years</u>, at <u>Cleveland State University</u>, to <u>complete degrees</u> in civil; industrial; and mechanical engineering programs, and <u>a minimum of 3 years</u>, at <u>CSU</u>, in chemical, electrical, and computer engineering programs.

For the majors listed below, it is recommended that you transfer to CSU after completion of: Chemical Engineering: Calculus II, Physics I, and General Chemistry II/Lab. Civil Engineering: Calculus III; Differential equations; and Physics II.

Computer Engineering: Calculus II and Physics I. Electrical Engineering: Calculus II and Physics I.

Industrial Engineering: Linear Algebra; Differential equations; Physics II.

Mechanical Engineering: Calculus III; Differential Equations; Physics II.

It is recommended that you meet with the CSU advisor early to plan your transfer to CSU. Call (216) 687-2555 for an appointment.