

**CURRICULUM FOR CIVIL ENGINEERING MAJOR**  
133 Semester Hours

**LOWER-DIVISION COURSES**  
(Pre-engineering)

<b>FALL</b>		<b>SPRING</b>	
CHEM 131 – Engineering Chemistry	4	ENG 102 – English Composition II	3
CHEM 135 – Engineering Chem. Lab	1	MATH 152 – Calculus II	5
ENG 101 – English Composition I	3	PHYS 151 – University Physics I	4
MATH 150 – Calculus I	5	PHYS 151L – University Physics Lab I	1
IME 106 – Eng. Prob. Solving <sup>1</sup>	3	SPC 103 – Interperson Communications <sup>2</sup>	3
TOTAL	16	TOTAL	16
<b>FALL</b>		<b>SPRING</b>	
CE 204 – Engineering Graphics & CAD	3	CE 206 – CE Surveying	2
CE 240 – Statics	3	CE 207L – CE Computer Applications	1
ECON 111 – Macroeconomics	3	CE 242 – Mechanics of Solids	3
MATH 250 – Calculus III	4	FINE ARTS & HUM. or SOC. S.– Intro	3
PHYS 152 – University Physics II	4	MATH 305 – Differential Equations I	3
PHYS 152L – University Physics Lab II	1	ME 262 – Dynamics	3
		Natural Science Course <sup>3</sup>	3
TOTAL	18	TOTAL	18

Admission to upper-division courses requires satisfactory completion of lower-division core courses (see catalog for specific requirements). An “APPLICATION FOR ADMISSION TO UPPER-DIVISION ENGINEERING COURSES” form must also be completed and approved. This form is available online. A special five-year BS/MS degree program is available for qualified students. Information can be found online.

**UPPER-DIVISION COURSES**

<b>FALL</b>		<b>SPRING</b>	
CE 315 – Fluid Mechanics	3	CE 354 – Geotechnical Engineering	3
CE 342 – Structural Engineering I	3	CE 354L – Geotechnical Lab	1
CE 330 – Engineering Materials	2	CE 343 – Structural Engineering II	3
CE 330L – Engineering Materials Lab	1	CE 376 – Transportation Engineering	3
FINE ARTS or HUMANITIES – Intro	3	CE 380 – Environmental Engineering	3
ME 310 – Thermodynamics	3	STAT 380 – Statistics for Applications	3
		INTERDISCIPLINARY STUDIES <sup>4</sup>	3
TOTAL	15	TOTAL	19
<b>FALL</b>		<b>SPRING</b>	
CE 460 – Municipal Infrastruc Design	3	CE 415L – Applied Fluids Lab	1
CE 416 – Hydrology (offered in fall) or CE 455 – Foundations(offered in spring) <sup>3</sup>	3	CE 493 – Engineering Design	3
CE Elec – Elective I <sup>5</sup>	3	CE Elec – Elective II <sup>5</sup>	3
ECE 210 – Electrical Circuits	3	CE Elec – Elective III <sup>5</sup>	3
PHIL 323 – Engin Ethics and Prof	3	SOCIAL SCIENCE – Distribution	3
PREP FOR FUND OF ENGR EXAM 6	0	IME 345 – Engr Economic Analysis	3
TOTAL	15	TOTAL	16

(See other side for notes.)

<sup>1</sup> MATH 106, PHIL 106, or PHIL 207 should be taken instead of IME 106 for those with more than 17 hours of coursework completed.

<sup>2</sup> SPC 103 satisfies the Intergroup Relations (IGR) requirement. If SPC 104 or 105 is taken instead, then a course from the list of Intergroup Relations courses in the current SIUE catalog must also be taken.

<sup>3</sup> Students must select a natural science course other than physics and chemistry. Possible courses include but are not limited to BIOL 111, BIOL 468, ESCI 111, ENSC 210, ENSC 220, ENSC 404, ENSC 473, ENSC 475, GEOG 202, GEOG 210, GEOG 211, GEOG 315, GEOG 320, GEOG 321, GEOG 418, and GEOG 423. Seek approval of your advisor prior to enrolling.

<sup>4</sup> Selecting one of IS 324, 326, 336, 340, 352, 353, 363, 375, 377, or 400 will satisfy both the requirement for an IS course and the requirement for an International Issues (II) or International Culture (IC) course. If some other IS course is selected, then the II/IC requirement must be satisfied by selecting an additional course from the list of II/IC courses in the current SIUE Undergraduate Catalog. IS 350, 352, and 375 also satisfy the IGR requirement.

<sup>5</sup> Students seeking to become licensed structural engineers (SE) in the State of Illinois should take 18 hours of structural engineering in upper division. CE 342, CE 343, CE 455 and CE 493-STR plus any two structural electives can be used to meet this requirement. Two of the 400-level courses must include structural design.

<sup>6</sup> Students are strongly encouraged but not required to take the FE exam before graduation.

NOTE: The General Education courses listed in the curriculum guide meet Option A of the Skills requirement. A student who wishes to select Option B may replace IME 106 and SPC 103 with two semesters of a foreign language (101 and 102). An appropriate course is required to meet the Intergroup Relations requirement for students selecting Option B (see catalog).

For additional information, contact the Civil Engineering Department office (618) 650-2533.

#### CE ELECTIVES

Not all elective courses are offered every year. The courses to be offered are selected from the list below on the basis of student demand and faculty availability.

Environmental/Water Resources	Transportation	Structural
CE 416 – Engineering Hydrology	CE 435 – Pavement Design	CE 435 – Pavement Design
CE 480 – Environmental Analysis	CE 473 – Travel Demand Forecasting	CE 441 – Timber Design
CE 486 – Wastewater Treatment Design	CE 474 – Computer Stimulation	CE 443 – Masonry Design
CE 487 – Water Treatment Design	CE 475 – Transportation Planning	CE 445 – Adv Structural Analysis
CE 488 – Hazardous Waste Mgt	CE 476 – Traffic Studies	CE 446 – Adv Concrete Design
		CE 449 – Adv Steel Design
		CE 455 – Foundation Design

#### EVENING AND SECOND COURSE OFFERINGS

CE courses are offered during either the fall or spring semester as shown on the reverse side of this page. Additional offerings of many CE courses are available as shown below. (The department reserves the right to cancel these offerings because of lack of student demand or faculty availability).

Daytime		
Fall	Spring	Summer
CE 206, 207L, 330, 330L, 376, 380, 242, 343, 493	CE 207L, 240, 315, 342, 460	None
Evening		
Fall	Spring	Summer
CE 204, Electives	CE 204, 207L, 354, 354L, 455, Electives	CE 240, 242, CE 315, Electives
Other engineering courses of interest to CE students		
Fall	Spring	Summer
IME 345	ECE 210, IME106	ECE 210, IME 345, ME 262, ME 310