UNDERGRAD

CIVIL ENGINEERING

SIUe

School of Engineering • Department of Civil Engineering

Undergraduate Degree Available at SIUE

Accredited ABET Engineering Accreditation Commission

- Bachelor of Science (ABET-Accredited)

Why Civil Engineering?

Civil engineers design the infrastructure of society – its water and wastewater systems, its transportation networks, and its structures.

Civil engineers protect people – their health and safety – and protect the environment. They allow goods, services, and people to move efficiently. They provide locations for people to live, relax, and work.

Civil engineers apply the principles of mathematics and sciences to improve people's lives.

Civil Engineering at SIUE

Our graduates…

1. Develop practical engineering designs, participate in planning, and perform other relevant civil engineering assignments in a competent and professional manner.
2. Incorporate considerations of economic, social context, community need, environmental, public safety and sustainability concerns, while conducting their engineering practice or practice in related fields.
3. Demonstrate their commitment to life-long learning through a) seeking professional engineer licensure, b) pursuing graduate studies, or c) participating in professional development activities organized by professional societies, relevant organizations/institutions, or their employer.

Career Outlook

Civil engineers are always needed in some capacity and so they have many opportunities. They work for a variety of employers – government agencies from the local level to the federal and international levels, industry, and consulting companies. They can also run their own business. Many are employed in technical and managerial positions in environmental, geotechnical, structural, and transportation engineering by consulting firms, government agencies, and manufacturing companies.

Admission Requirements

Students admitted to programs offered in the School of Engineering shall have met the University admission requirements and the following additional School of Engineering requirements:

- completion of all Academic Development courses required by the University
- completion of any courses required to address School of Engineering high school deficiencies
- eligibility to enroll in MATH 125 – Pre-Calculus at a minimum
- maintenance of a cumulative grade point average of at least 2.0 (on a 4.0 scale)

Exit Requirements

Satisfactory completion of all university, program and departmental requirements as outlined in the undergraduate catalog.

Other Engineering Programs at SIUE

Computer Engineering, Computer Science*, Construction Management, Electrical Engineering*, Industrial Engineering*, Manufacturing Engineering, Mechanical Engineering*

** graduate program also available*

Faculty

Brad Cross, Ph.D., P.E., S.E.
1992, Johns Hopkins University

Ryan Fries, Ph.D., P.E.
2007, Clemson University

Chiang Lin, Ph.D.
1984, University of Kentucky

Susan Morgan, Ph.D., P.E. (Chair)
1995, Clemson University

Nader Panahshahi, Ph.D.
1987, Cornell University

Jianpeng (Jim) Zhou, Ph.D., P.E.
2003, University of British Columbia

Huaguo Zhou , Ph.D., P.E.
2001, University of South Florida

Rex Pierce, M.B.A.
1987, Southern Illinois University Edwardsville

Brent Vaughn, M.S., P.E.
1999, Southern Illinois University Edwardsville

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
SCHOOL OF ENGINEERING

Sample Four-Year Curriculum (See Undergraduate Catalog for Additional Information)

	FALL	SPRING
	LOWER-DIVISION COURSES (Pre-engineering)	
YEAR 1	IME 106 Engineering Problem Solving (3) or **PHIL 106** CHEM 131 Engineering Chemistry (INSM) (4) or **CHEM 121A** CHEM 135 Engineering Chemistry Lab (1) or **125A** **ENG 101** English Composition I (3) **MATH 150** Calculus I (INSM) (5) Total 16	**ENG 102** English Composition II (3) **MATH 152** Calculus II (DNSM (5) **PHYS 151** University Physics I (4) **PHYS 151L** University Physics Lab I (1) SPC 103 Interpersonal Communication. Skills (IGR) (3) Total 16
YEAR 2	**CE 204** Engineering Graphics & CAD (3) **CE 240** Statics (3) **ECON 111** Macroeconomics (ISS) (3) **MATH 250** Calculus III (4) **PHYS 152** University Physics II (4) **PHYS 152L** University Physics Lab II (1) Total 18	CE 206 Civil Engineering Surveying (2) CE 207L CE Computer Applications (1) **CE 242** Mechanics of Solids (3) **MATH 305** Differential Equations I (3) **ME 262** Dynamics (3) **Natural Science Course** (3)* Introductory Fine Arts & Humanities or Social Sciences (3) 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.	
	UPPER-DIVISION COURSES	
YEAR 3	CE 315 Fluid Mechanics (3) CE 342 Structural Engineering I (3) CE 330 Engineering Materials (2) CE 330L Engineering Materials Lab (1) ME 310 Thermodynamics (3) Introductory Fine Arts & Humanities (3) Total 15	CE 343 Structural Engineering II (3) CE 354 Geotechnical Engineering (3) CE 354L Geotechnical Engineering Lab (1) CE 376 Transportation Engineering (3) CE 380 Environmental Engineering (3) STAT 380 Statistics for Applications (3) Interdisciplinary Studies (IS) (3) Total 19
YEAR 4	CE 416 Engineering Hydrology (offered in fall) or CE 455 Foundation Design (offered in spring) (3) CE 460 Municipal Infrastructure Design (3) CE Elective I (3) ECE 210 Electrical Circuits (3) PHIL 323 Engineering, Ethics, & Professionalism (DFAH) (3) Preparation for Fundamental of Engineering Exam (0) Total 15	CE 415L Applied Fluid Mechanics Lab (1) CE 493 Engineering Design (3) CE Elective II (3) CE Elective III (3) IME 345 Engineering Economic Analysis (3) Distribution Social Sciences (3) Total 16

* Contact Engineering Advisement for course selection

TRANSFER STUDENTS Maximize your transfer experience - complete the **bolded** courses/requirements pre-transfer **AND** satisfy the Illinois Articulation Initiative (IAI) General Ed Core or receive an AA, AS, or AAT (early childhood, special ed, or math) degree from an IAI community college. If 'Minor' requirements are shown, discuss careful course selection with the academic advising contact listed. Transfer Credit Equivalency Guides are located at ***siue.edu/transfer/***

Academic Advising Information

Engineering Student Services
SIUE School of Engineering
Campus Box 1806
Edwardsville, IL 62026-1806
618.650.5300
www.siue.edu/engineering/studentservices

Contact Info

Department of Civil Engineering
SIUE School of Engineering
Campus Box 1800
Edwardsville, IL 62026-1800
618.650.2533