

Degrees Available at SIUE

- Bachelor of Science, Civil Engineering

Accelerated Combined Degree Program

This program provides an accelerated option for qualifying SIUE students who wish to earn simultaneous undergraduate and graduate credit for some courses taken their senior year. Learn more at siue.edu/academics/accelerated-combined-degrees.

Civil Engineering at SIUE

The Department of Civil Engineering offers a curriculum that provides students with a solid background in mathematics, physical science and civil engineering. Elective courses are available in environmental, geotechnical, structural, transportation and water resources engineering. Laboratory facilities in the School of Engineering are available for conducting basic environmental analyses, hydraulic experiments, material tests, soil mechanics procedures and transportation studies. Baccalaureate graduates are prepared to assist public and private employers, or to pursue graduate study.

Professional Engineering Licensure

As a civil engineer, it is important to obtain your professional engineer (PE) license. For structural engineers, it is also important to obtain your structural engineer (SE) license. To help you along the road to your PE and SE, the civil engineering program is accredited by the Engineering Accreditation Commission of ABET. By completing your degree with us and by passing the Fundamentals of Engineering (FE) exam in your senior year, you will be on the road to earning your license. You can find information about registering for the exam in Illinois and Missouri on the National Council of Examiners for Engineering and Surveying website, and the Illinois Society of Professional Engineers website.

Career Opportunities

Civil engineers work in a wide range of fields in both technical and managerial positions. Job opportunities can be found in consulting companies, industry and government agencies. Civil engineers work in offices and on job sites. They design, build, inspect, maintain, rehabilitate, and preserve buildings, bridges, treatment systems and roads—all the essential infrastructure for society. Due to the nature and importance of the profession, civil engineers are always needed.

Hands-On Learning

Many civil engineering courses include hands-on activities designed to help students learn core concepts. These include student projects and laboratories where students can learn firsthand about the behavior of civil engineering materials. Students are also encouraged to participate in one of the more than 30 student organizations in the School of Engineering. These organizations help students strengthen their understanding of engineering design, create a network of fellow engineering students, and have fun. Students use state-of-the-art equipment during their classes and labs to prepare for the variety of careers that await upon graduation.

Many faculty members in the Department of Civil Engineering participate in the Undergraduate Research and Creative Activities (URCA) program. Students are encouraged to engage with faculty members and participate in research opportunities. The Department of Civil Engineering also keeps students up-to-date on internship and career opportunities.



Faculty

Rohan Benjankar, PhD

2009, University of Idaho

Brad Cross, PhD, PE, SE

1992, Johns Hopkins University

Ryan Fries, PhD, PE

2007, Clemson University

Jianwei Huang, PhD, PE

2010, Syracuse University

Susan Morgan, PhD, PE

1995, Clemson University

Abdolreza Osouli, PhD, PE

2010, University of Illinois at Urbana-Champaign

Nader Panahshahi, PhD

1987, Cornell University

Yan Qi, PhD, PE

2010, Louisiana State University

Brent Vaughn, MS, PE

1999, Southern Illinois University Edwardsville

Jianpeng Zhou, PhD, PE, BCEE

2003, University of British Columbia



Engineering
Accreditation
Commission

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE

SCHOOL OF ENGINEERING

Sample Curriculum for the Bachelor of Science in Civil Engineering

| | Fall Semester | Spring Semester |
|---------------|---|---|
| Year 1 | IE 106 Engineering Problem Solving 3 CHEM 131 Engineering Chemistry (BPS) 4 CHEM 135 Engineering Chemistry Lab (EL) 1 ENG 101 English Composition I 3 MATH 150 Calculus I (FQR) 5 FST 101 Succeeding & Engaging at SIUE 1 Total Credits 17 | ENG 102 English Composition II 3 MATH 152 Calculus II (BPS) 5 PHYS 141 Physics I for Engineering (BPS) 3 PHYS 151L University Physics Lab I (EL) 1 ACS 103 Interpersonal Communication (EUSC) 3 Total Credits 15 |
| Year 2 | CE 204 Engineering Graphics & CAD 3 CE 240 Statics 3 MATH 250 Calculus III (BPS) 4 PHYS 142 Physics II for Engineering (BPS) 3 PHYS 152L University Physics Lab II (EL) 1 Total Credits 14 | CE 206 Civil Engineering Surveying 2 CE 242 Mechanics of Solids 3 MATH 305 Differential Equations I 3 ME 262 Dynamics 3 Breadth Life Science (BLS) 3 ECON 111 Macroeconomics (BSS) 3 Total Credits 17 |
| Year 3 | CE 315 Fluid Mechanics 3 CE 342 Structural Engineering I 3 CE 330 Engineering Materials 2 CE 330L Engineering Materials Lab 1 CS 140 Introduction to Computing or CS 145 Introduction to Computing for Engineers 3-4 CE 354 Geotechnical Engineering 3 CE 354L Geotechnical Engineering Lab 1 Total Credits 16-17 | CE 343 Structural Engineering II 3 CE 376 Transportation Engineering 3 CE 380 Environmental Engineering 3 STAT 380 Statistics for Applications (BICS) 3 Breadth Fine & Performing Arts (BFPA) 3 Interdisciplinary Studies (IS)/Global Cultures (EGC) 3 Total Credits 18 |
| Year 4 | CE 416 Engineering Hydrology, CE 455 Foundation Design, or CE 459 Soil Improvement Methods 3 CE 460 Municipal Infrastructure Design 3 CE Elective I 3 CE Selective 3 PHIL 323 Engineering, Ethics, & Professionalism (FRA, BHUM) 3 Preparation for Fundamental of Engineering Exam 0 Total Credits 15 | CE 415L Applied Fluid Mechanics Lab 1 CE 493 Engineering Design 3 CE Elective II 3 CE Elective III 3 IE 345 Engineering Economic Analysis 3 Health Experience (EH) 0-2 Total Credits 13-15 |
| | | Total Hours 125-128 |

Transfer Students: To maximize your transfer experience, complete the **bolded** courses/requirements pre-transfer and satisfy either 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. Visit siue.edu/transfer to find course equivalency guides.

Admission Requirements

To be admitted to the Bachelor of Science program, students must:

- Complete all academic development courses required by the University
- Complete any courses required to address high school deficiencies
- Be eligible to enroll in MATH 125 or higher.
- Attain a cumulative GPA of at least 2.0 on a 4.0 scale

Graduation Requirements

A cumulative GPA of 2.0 or higher is required for courses taught in the School of Engineering; a cumulative GPA of 2.0 or higher is required for civil engineering courses numbered above 299; and students must complete a senior assignment included as part of CE 493 Engineering Design. In addition to fulfilling department requirements, students must complete all University requirements for graduation.

Contact Information

Department of Civil Engineering
 School of Engineering
 Phone: 618-650-2533