

BACHELOR OF SCIENCE IN CIVIL & ENVIRONMENTAL ENGINEERING



WHAT IS CIVIL ENGINEERING?

Civil engineering is the professional discipline that focuses on the development and maintenance of both man-made and natural infrastructure. Civil engineers produce the facilities on which modern life depends, including roads, bridges, buildings, offshore structures, airports and levees, as well as the infrastructure required for the supply of clean water.

Civil engineering includes a multitude of sub-disciplines including environmental engineering, structural engineering, geotechnical engineering, materials engineering, water resources engineering, geosensing systems engineering and more. Civil engineering offers a very wide variety of opportunities!

CAREERS IN CIVIL ENGINEERING

Civil engineers find employment opportunities in both the private and public sectors. Career opportunities in civil engineering are excellent – especially in Houston, the Energy Capital of the World. Employment for civil engineers is expected to increase significantly, spurred by ongoing emphasis to improve our nation's infrastructure.

A 2018 salary survey produced by Payscale.com found that new civil engineering graduates earned an average starting salary of \$58,838.

WHY EARN YOUR CIVIL ENGINEERING DEGREE AT THE UNIVERSITY OF HOUSTON?

ACADEMICS

The civil engineering undergraduate program at the University of Houston Cullen College of Engineering is rigorous and hands-on. The program is designed to offer undergraduate students a broad-based education in the freshman and sophomore years and a more focused education in the junior and senior years. The jobs available in the field of civil and environmental engineering are diverse, so a broad base is provided to prepare graduates for a variety of positions. Luckily, the civil and environmental engineering department has one of the most loyal and active alumni bases in the entire college, with UH civil engineering graduates employed in top positions throughout the region – so landing your dream job, internship, co-op or fellowship shouldn't be too difficult!

Learn more at www.cive.uh.edu/programs/undergraduate



RESEARCH

The civil engineering undergraduate program at the University of Houston Cullen College of Engineering is well-known for its research, and faculty in the department have expertise in environmental engineering, geotechnical and materials engineering, structural engineering, oceans and water resources engineering and geosensing systems engineering. The civil and environmental engineering department is also home to the NSF-funded National Center for Airborne Laser Mapping (NCALM). Undergraduate students have the opportunity to become involved in the fascinating research being conducted by faculty members and graduate students in the department.

Learn more at www.cive.uh.edu/research/overview

SCHOLARSHIPS

Departmental scholarships for undergraduate students include those endowed by or in memory of M.P. "Pat" Anderson, Charles A. Beyer Houston Contractors Association, Cobb/Fendley, Vishnu and Rohini Divecha, DFI Educational Trust Charles J. Berkel, BGE/Ronald L. Mullinax, R. P. Doss Houston Contractors Association, Jesse G. Gonzalez, Houston Chapter of the American Concrete Institute, Klotz Associates, Herbert and Faye Lum, Structural Consulting Company/Monteith, Jimmie A. Schindewolf, Charles J. Tamborello, Stanford Daniel Ward, Jr., and others. Scholarships are also awarded by the Cullen College of Engineering and by the University of Houston Office of Scholarships and Financial Aid. Additionally, the University's internship program allows students to receive career training while helping to finance their education.

Learn more at www.cive.uh.edu/programs/undergraduate/scholarships

STUDENT ORGANIZATIONS

Students are encouraged to join academic and professional organizations to build leadership, communication and networking skills. Members of student organizations receive career guidance from engineering professionals and participate in activities that promote engineering.

The civil and environmental engineering department has student chapters of the American Society of Civil Engineers (ASCE) and American Concrete Institute (ACI). The UH ASCE chapter is very active and its members are engaged in the Texas/Mexico Regional Concrete Canoe Competition and the Daniel W. Mead Ethics Paper Competition each year.

Learn more at www.cive.uh.edu/programs/undergraduate/student-activities

CEE FAST FACTS

264 Total Undergrad Students in Department

139 Total Faculty in Cullen College

21 Total Faculty in CEE Department

\$58,838 Average Starting Salary with B.S. in Civil Engineering

22:1 Student-to-Faculty Ratio Across the University

YEAR 1

SEMESTER 1		SEMESTER 2		Total	
ENGI 1100	Introduction to Engineering	1	CHEM 1332	Fundamentals of Chemistry II	3
CHEM 1331	Fundamentals of Chemistry	3	CHEM 1112	Fundamentals of Chemistry Lab II	1
CHEM 1111	Fundamentals of Chemistry Lab	1	ENGI 1331	Computing for Engineers	3
ENGL 1303	First Year Writing I	3	ENGL 1304	First Year Writing II	3
MATH 1431	Calculus I	4	MATH 1432	Calculus II	4
POLS 1336	U.S. and Texas Constitutions and Politics	3	PHYS 1321	University Physics I	3
Semester Hours 15		Semester Hours 17		32	



YEAR 2

SEMESTER 1		SEMESTER 2		Total	
GEOL 1330	Physical Geology	3	CIVE 2332	Mechanics of Solids	3
or BIOL 1361	Intro to Biological Science		MECE 3336	Mechanics II (Dynamics)	3
CIVE 2330	Mechanics I (Statics)	3	INDE 2333	Engineering Statistics I	3
MATH 2433	Calculus III	4	ENGI 2304	Technical Communications	3
MECT 3341	Computer-Aided Drafting I	3	MATH 3321	Engineering Mathematics	3
PHYS 1322	University Physics II	3	CORE	Social and Behavioral Sciences	3
Semester Hours 16		Semester Hours 18		34	



YEAR 3

SEMESTER 1		SEMESTER 2		Total	
CIVE 3331	Environmental Engineering	3	CIVE 3434	Fluid Mechanics and Hydraulic Engineering	4
CIVE 3332	Engineering Materials	3	CIVE 4363	Concrete Design	3
CIVE 3337	Structural Analysis	3	CIVE 4369	Foundation Engineering	3
CIVE 3339	Geotechnical Engineering	3	CIVE ELEC	Civil Engineering Elective	3
MECE 2334	Thermodynamics	3	CIVE ELEC	Civil Engineering Elective	3
POLS 1337	U.S. Government	3			
Semester Hours 18		Semester Hours 16		34	



YEAR 4

SEMESTER 1		SEMESTER 2		Total	
CIVE 4332	Hydrology	3	CIVE 4312	Civil Engineering Design Project	3
CIVE 4333	Water & Wastewater Treatment	3	CIVE ELEC	Civil Engineering Elective	3
CIVE 4311	Professional Practice in Civil Engr.	3	CIVE ELEC	Civil Engineering Elective	3
HIST 1376/77	The United States to 1877	3	CORE	Creative Arts	3
CORE	Language, Philosophy & Culture	3	HIST 1378/79	The United States Since 1877	3
Semester Hours 15		Semester Hours 15		30	
TOTAL SEMESTER HOURS				130	

*Students should meet with their academic advisor to formulate their own plan. Course offerings are subject to change.

FOR MORE INFORMATION

UH Department of Civil and Environmental Engineering: www.cive.uh.edu
Undergraduate Program: www.cive.uh.edu/programs/undergraduate | Email: civil@egr.uh.edu

UH Department of Civil and Environmental Engineering
Engineering Building 1 | 4726 Calhoun Rd., Suite N107 | Houston, Texas 77204-4003 | 713.743.4250



UH Engineering | @uhenengineering | University of Houston Cullen College of Engineering | @uhenengineering