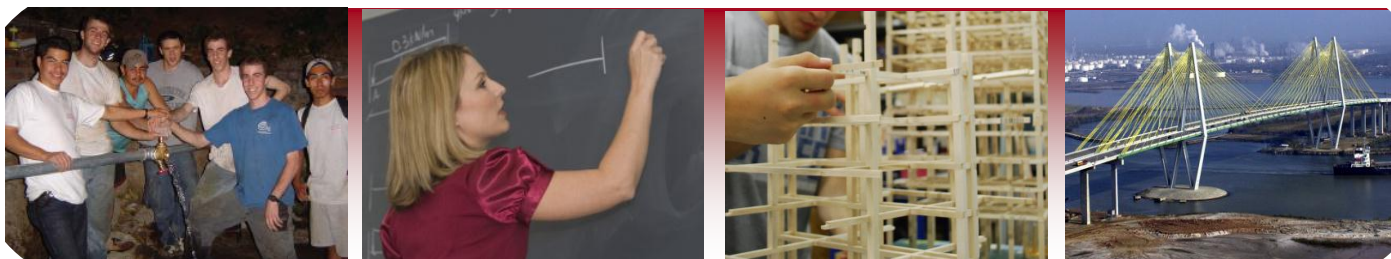


B.A. Civil and Environmental Engineering



The B.A. degree in Civil and Environmental Engineering is designed to provide flexibility to students to choose either a Civil (Track C) or Environmental (Track E) Engineering emphasis along with topics across any discipline at Rice University. Each Track is to be tailored to the specific student need through discussion with and approval by a CEE departmental Track advisor. Either six (6) core courses in Track C or five (5) core courses in Track E, plus seven courses in a focused specialty area of study are required (see below for examples areas). The total core and specialty area requirements of approximately (37 hours). In addition, students must complete the departmental Math and Science requirements (25 hours) and the remaining University distribution requirements of 6 courses (18 hours), and additional free electives for a total of (122 hours) for graduation with a BA in Civil and Environmental Engineering. **Although not required, students are encouraged to double major in their Specialty Focus Area.**

This coherent and complete core curriculum is designed to give Rice Undergraduate students a consistent technological literacy through the lens of Civil and Environmental Engineering and prepare students for graduate school in engineering, various sciences (depending upon focus), economics, business, political science, law, or medicine. Select students will be invited to finish an accelerated MS/PhD degree in the CEE Department (see your advisor/department chair for details). Students pursuing professional engineering licensure should also consider our BS in Civil & Environmental Engineering (BSCE).

Specialty Focus Area Courses:

The seven (7) Specialty Focus Area courses must include 4 courses from 1 specific focus area; 4 must be 300 level, or above, and 2 of these upper-division courses must be from the CEE curriculum.

BA Civil and Environmental Engineering:

Track C: Civil Core Curriculum

CEVE 101	Fundamentals of Civil and Env. Eng.	3
CEVE 211	Engineering Mechanics	3
CEVE 310	Principles of Environmental Engineering	3
CEVE 311+312	Mechanics of Solids & Structures + lab	4
CEVE 304	Structural Analysis	3

Track E: Environmental Core Curriculum

CEVE 101	Fundamentals of Civil and Env. Eng.	3
CEVE 307	Energy and the Environment	3
CEVE 310	Principles of Environmental Engineering	3
CEVE 401	Environmental Chemistry & Lab	4
CEVE 412	Hydrology and Water Resources Engineering	3

Example Specialty Focus Areas

These are only example focus areas; students are encouraged to prepare their own related to their career objectives in consultation with and approval by their CEE faculty advisor.

**Biology ♦ Chemical Engineering ♦ Chemistry ♦ Civil Engineering
Economics ♦ Environmental Science and Engineering ♦ Management**

Required Math & Science Courses (see back of flyer for more details)

Advisors

Track C:

Dr. Satish Nagarajaiah
Satish.nagarajaiah@rice.edu

Track E:

Dr. Mason Tomson
Mtomson@rice.edu

Please contact a track advisor for more information on the B.A.



Overall Hours

Core.....	16 hrs
Specialty Focus Area.....	21 hrs
Math & Science.....	25 hrs
Distribution.....	18 hrs ⁺
Open Electives, FWIS and LPAP.....	42 hrs
Total.....	122 hrs

⁺Our B.A. required Math & Science incl. (3) Distribution III courses.

[HTTPS://CEVE.RICE.EDU](https://ceve.rice.edu)

Department of Civil and Environmental Engineering

Rice University ♦ 6100 Main St., MS 519 ♦ Houston, Texas 77005 ♦ P (713) 348-4949 ♦ F (713) 348-5268 ♦ E ceve@rice.edu

Required Science and Math Courses

CAAM 210	Introduction to Engineering Comp (or CAAM 335 Matrix Analysis -3) (or COMP 110/NSCI 230 Computational Science & Engr. -3)	3
CHEM 121/123	General Chemistry Laboratory I	3/1
CHEM 122/124	General Chemistry Laboratory II	3/1
MATH 101	Single Variable Calculus I	3
MATH 102	Single Variable Calculus II	3
PHYS 101/103	Mechanics with Lab	4
PHYS 102/104	Electricity and Magnetism with Lab	4

+Our B.A. required Math & Science incl. (3) Distribution III courses.

Suggested Electives

Any CEVE course from Focus Areas or 500 Level Courses

CEVE 314	Sustainable Water Purification	2
CEVE 320	Ethics and Engineering Leadership	3
CEVE 417	Finite Element Analysis	3
CEVE 424	Time-dependent Reliability of Eng. Systems	3
CEVE 454	Computational Fluid Mechanics	3
CEVE 490	Special Study and Research	3
CEVE 499	Special Topics	1-12
ARCH 317	(617) Landscape & Site Strat. Houston	3
CHEM 211	Organic Chemistry I	3
ECON 100	Principles of Economics	3
ECON 445	Managerial Economics	3
STAT 385	Methods for Data Analysis	3
CAAM 336	Diff Equations in Sci & Eng.	3
CAAM 378	Intro to O.R. and Optimization	3
CAAM 420	Computational Science I	3
CAAM 453	Numerical Analysis I	3
CAAM 471	Linear and Integer Programming	3
MECH 343	Modeling of Dynamic Systems	4
MECH 412	Vibrations	3

Department Centers

Our faculty lead four centers within our department in addition to their individual research groups. Most also serve on collaborative interdisciplinary research groups and centers across Rice and across the globe. Our undergraduates are able to benefit from the breadth and reach our faculty have into an ever-expanding network of resources and opportunities to develop education and skills, broaden experiences, refine career focus or expand career paths. We are excited to be part of each student's journey!

1. **Nanosystems Engineering Research Center for Nanotechnology-Enabled Water treatment (NEWT)**
2. **Severe Storm Prediction, Education, and Evacuation from disasters (SSPEED)**
3. **Brine Chemistry Consortium**
4. **China-U.S. Center for Environmental Remediation and Sustainable Development**

Undergraduate Clubs

Our undergrads participate in department-specific clubs and Rice's many others! Be civil, stay environmental and most importantly, expand and enjoy your unique Rice experience!



1. **American Society of Civil Engineers Student**
2. **Chi Epsilon**
3. **Engineers without Borders (EWB)**
4. **Concrete Canoe Team**
5. **Earthquake Engineering Research Institute Council**
6. **Society of Women Engineers**



GET INVOLVED!

Students pursuing professional engineering licensure should consider our **BS in Civil Engineering (BSCE)**.

For more details regarding licensure see: <http://ncees.org/engineering>.