

Department of Civil Engineering and Construction Management

Civil Engineering

What is Civil Engineering?

Civil Engineering (CE) is a professional engineering discipline that involves the planning, design, construction, and maintenance of buildings and infrastructure in society. It covers a wide range of fields, including structural, geotechnical, surveying, water, construction, environmental, and transportation engineering. Recognized as one of the oldest engineering disciplines, Civil Engineering dates back to marvels such as Egypt's pyramids and the ancient Roman water systems. In more recent times, notable projects include the Golden Gate Bridge, Hoover Dam, and Burj Khalifa in Dubai, the world's tallest building. Civil Engineering is integral to modern life, from buildings, houses, and bridges to roads, water and sewer systems, dams, and even power plants. This is why Civil Engineering is essential to society.



What sort of courses will I take?

Our goal at California Baptist University (CBU) is to make sure that graduates from the CE program are the best qualified candidates to

start their careers. The CE program at CBU provides students with a balanced education in faith, leadership, and technical competence.

The Civil engineering program at CBU provides coursework in mathematics and basic natural sciences, including physics, biology, and chemistry, to establish competence in these areas. It also offers foundational engineering courses such as statics, strength of materials, surveying, CAD (computer-aided design), programming languages, materials engineering, and introductory environmental engineering courses. As students progress into their junior and senior years, the curriculum covers more advanced topics, including structural analysis and design, geotechnical and foundation engineering, hydrology and water resources, project management, environmental engineering, and comprehensive design courses such as junior design and capstone design. In addition to coursework, students are required to complete a minimum of 200 internship hours and pass a practice FE (Fundamentals of Engineering) exam to graduate from CBU.



What kind of job will I get after college?

CBU CE students are in demand for a variety of positions in both the private and public sectors, covering all sub-disciplines within civil engineering and the construction industry. The specific role may depend on the projects, but entry-level civil engineers typically work closely with other professionals on the design,

construction, and maintenance of civil engineering applications. Some engineers work on-site alongside other engineers and architects, while others work in an office environment. Students are placed throughout California and the United States. Our graduates are in high demand and receive competitive starting salaries.

Typical position titles of our CE graduates include:

- Junior Engineer
- Project Engineer
- Field Engineer
- Civil Engineer and Civil Engineering Analyst
- Assistant Engineer
- Assistant Surveyor

Who hires CBU CE graduates?

Some of the employers who have recently hired CBU CE graduates include:

- | | |
|------------------------------|------------------------------|
| • Kimley-Horn | • Caltrans |
| • Erickson-Hall Construction | • Skanska |
| • Granite | • Tilden-Coil |
| • Hensel Phelps | • IMEG Corp |
| • Kiewit | • Whiting-Turner |
| • Teichert | • Adkan Engineers |
| • Flatiron | • Tovey Shultz |
| • Rick Engineering | • W.E. O'Neil Construction |
| • Clark Pacific | • Tory R. Walker Engineering |
| • County of Riverside | • City of Chino Hills |
| • City of Hemet | • City of Riverside |





Can I transfer to CBU CE from a 2-year construction related college program?

Transfer is possible from accredited 2-year community college programs. It is recommended to consult both the CBU Undergraduate Admission office and your community college advisor to maximize credit hour transfers before enrolling in any 2-year program.

For **admission information** contact:
Undergraduate Admissions
ACADEMIC ADVISING OFFICE:
(951) 343-4567

WEBSITE: <https://calbaptist.edu/admissions-aid/undergraduate/>

Is financial aid available?

CBU offers student loans, scholarships, and other assistance programs. Scholarships are available not only for freshmen but also for transfer students. Detailed information about CBU scholarships can be found at CBU Scholarship Information page at <https://calbaptist.edu/admissions-aid/tuition-aid/undergraduate/scholarship-aid/>. Additionally, the CBU Engineering Scholarship is available up to \$5,000 per year. For more information, please contact the College of Engineering at coescholarships@calbaptist.edu.

LIVE YOUR PURPOSE[®]

Scholarships specifically designed for CE students are also available from various organizations and industry supporters, such as:

- American Society of Civil Engineers (ASCE)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- National Council of Structural Engineers Associations (NCSEA)
- American Council of Engineering Companies (ACEC)
- Women's Transportation Seminar (WTS)



What about extracurricular activities?

The American Society of Civil Engineers (ASCE) is an organization that represents civil engineering professionals worldwide. Founded in 1852, ASCE is the nation's oldest national engineering organization. The ASCE Student Chapter at CBU (CBU ASCE) is a student-led organization that enhances the experience of civil engineering students by offering community service opportunities, industry engagement, and participation in engineering competition. CBU ASCE has been actively participating in the Pacific SouthWest Symposium (PSWS), a regional competition among 14 schools in the Southwest region. During the competition, students participate in various events, including the steel bridge and concrete canoe competitions, which offer hands-on experience in applying classroom knowledge to real-world applications.



Where can I get more information on the CE program?

Your first stop should be the Civil Engineering program website at:



For additional information or for transfer advising, please contact:

Dr. Jong-Wha Bai, Department Chair
jbai@calbaptist.edu, 951.343.4935

or

Student Success Coach for the Civil Engineering: Becky Lamberth
rlamberth@calbaptist.edu, 951.343.4524

Accreditation

The Civil Engineering program at CBU is accredited by the **Accreditation Board for Engineering and Technology (ABET)**.



California Baptist University