Schulich School of Engineering

CIVIL ENGINEERING

Bachelor of Science in Engineering - BSc (Eng)

Civil engineering involves the conception, design, construction, operation, maintenance and management of many structures and systems vital to the public. Civil engineering is a very broad discipline, which means the techniques and skills you’ll gain will be directly applicable to a wide range of real-world work environments. During the course of your studies, much of your learning will occur in class, during tutorials and through the completion of a full-year design project.

In fourth year, we design our own concrete mix. We go down to the lab and mix it all together and test it to find out the strength of it. Then, we work out how that would apply to different situations. Being able to take these courses, where you can apply knowledge and do something with it, is really beneficial.

Sarah F., Civil Engineering Student

Did You Know?

As a civil engineering student, you can complete a minor in transportation engineering, structural engineering, entrepreneurship and enterprise development or management and society. Specializations in biomedical engineering or energy and the environment are also available.

Awards

SCHULICH SCHOOL OF ENGINEERING COMMUNITY SERVICE OR ACADEMIC EXCELLENCE SCHOLARSHIPS - UP TO $24,800 (RENEWABLE)

PRESIDENT’S ADMISSION SCHOLARSHIPS - $5,000

Job Titles

MUNICIPAL ENGINEER
STRUCTURAL DESIGN ENGINEER
PROJECT MANAGER

Student Clubs

CIVIL ENGINEERING UNDERGRADUATE SOCIETY
GREAT NORTHERN CONCRETE TOBOGGAN RACE TEAM

Kim G.
BSc (Eng) '11

Kim worked on the student-led project for the Solar Decathalon competition in 2011. The group designed and built a dome-shaped, 93-square-metre structure that couples the latest in solar-power technology and energy-efficient building systems with a culturally responsive design for First Nations in southern Alberta. The house, built for a family of four, is also net-zero, which means it produces as much electricity as it consumes.

View Program Requirements

1. Visit ucalgary.ca/future-students/undergraduate/explore-programs
2. Select your program
3. Select your type of admission (high school or transfer)
4. Choose the location of your high school

Sample First-Year Courses

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<tr>
<th>FALL</th>
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<tr>
<td>Calculus for Engineers and Scientists (MATH 275)</td>
<td>Multivariable Calculus for Engineers and Scientists (MATH 277)</td>
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<tr>
<td>Engineering Design and Communication (ENGG 200)</td>
<td>Fundamentals of Electrical Circuits and Machines (ENGG 225)</td>
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<tr>
<td>Computing for Engineers (ENGG 233)</td>
<td>Engineering Statics (ENGG 202)</td>
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<td>Linear Methods I (MATH 211)</td>
<td>Electricity and Magnetism for engineers (PHYS 259)</td>
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<tr>
<td>General Chemistry for Engineers (CHEM 209) or Behaviour of Liquids, Gases and Solids (ENGG 201)</td>
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Complementary studies option (optional)

This program features a common first year, which will introduce you to a variety of engineering disciplines. You’ll apply for admission to a specific program at the end of your first year.