ENGINEER YOUR WAY TO A NEW CAREER

One-year master of software engineering

The University of Calgary offers a unique Master of Engineering in Electrical and Computer Engineering (MEng) with a specialization in software engineering. The in-depth, course-based MEng program is designed for students with an engineering degree — even those without a software engineering background.

WHY SHOULD I STUDY SOFTWARE ENGINEERING IN CALGARY?

All industries, from farming to city planning to oil and gas, are relying on software-engineering based technology to increase efficiency and innovation. Demand for software engineers is growing — exponentially. In addition, Alberta has the top paid software engineers in Canada. The province's median income for a software engineer is $100,000, according to Engineers Canada.

This is the ideal time to upgrade your skills to take your career to the next level.

IS THIS PROGRAM RIGHT FOR ME?

If you have an undergraduate engineering degree and would like to develop the advanced software engineering skills employers need most — this program is for you.

- For software engineering graduates, we offer an 8-month fast-track option where you can develop advanced skills in areas such as big data analytics, machine learning, web development and systems design.
- For other engineers, we offer a 12-month program where you access a customized boot camp during the fall term to build your basic software engineering and programming skills before moving into our masters-level engineering courses.

To benefit from hands-on learning, this is a full-time, classroom-based program.

WHY SHOULD I TAKE THIS PROGRAM?

Our full-time, course-based master's degree in software engineering offers three in-demand components:

1. You will add new, advanced-level software engineering skills to your current engineering experience.
2. You'll then apply those skills to engineering big data analytics, machine learning, web development, systems design and more.
3. You will develop in-demand skills through professional development in project management, innovation and entrepreneurship.

WHAT CAN I DO WITH THIS DEGREE?

Become a product manager with a software service provider. Your combined engineering background and new software engineering skills would bridge the knowledge gap between software development and technical domain specialists. Or pursue an applied data analytics role with an energy producer. Your skills with the design and implementation of process flows, data management and data integration would position you to optimize systems and processes you already work with in your current field. Whatever your career aspirations may be, the software engineering MEng will expand your professional opportunities.

IF I'M NOT A SOFTWARE ENGINEER, CAN I STILL TAKE THE PROGRAM?

Absolutely. We're here to help every step of the way. We offer a team-based approach where you can learn alongside other non-software engineers. We have free tutors available and dedicated study spaces to ensure you are set up for success.

Through a series of courses in your fall term, we will teach you fundamental programming and software development concepts. You will develop programming skills through hands-on projects using C, C++, Java and Python programming languages. You'll learn skills in program design; programming and application of common data structures; and develop strategies and tools for testing and debugging. Once we bring you up to speed in these and other key areas, you'll be ready for our master's-level software engineering courses.

WHAT ELSE DOES THIS PROGRAM INCLUDE?

Courses include:

- Software design and architecture
- Data engineering
- Engineering large-scale analytics systems
- Data mining and machine learning
- Dependability and reliability of software systems
- Web development
- Project management
- Innovation and entrepreneurship

In addition to enhancing your technical skills, you will also learn how to apply project management principles to software development, including everything from planning and organizing the scope and resources needed for a project to understanding human resource issues.

Our program is also focused on giving you hands-on experience. All students will complete a team design project, either working with industry or pursuing their own entrepreneurial idea. This project allows you to put both your software engineering and professional skills to the test.

HOW MUCH DOES IT COST?

	Boot camp tuition	Advanced courses tuition	Graduate student fees for 12 months
Canadian student	$1,615.77	$7,147.80	$1,840
International student	$5,501.52	$16,226.40	$1,840

**Fees are subject to change*

For the most accurate information, please review the Academic Calendar.

HOW DO I APPLY?

Visit ucalgary.ca/future-students/graduate/apply

- Collect your documents — We require an official transcript for your previous engineering degree.
- Gather references — Contact past professors for potential references. We will invite your referees to complete an online reference form after you submit your application.
- Begin your application — Create an eID to log in and begin your online application. Once you begin, remember to click 'Save & Continue' often to ensure your application is saved.
- Submit your application — Pay your application fee:
  - $125 for Canadian or permanent residents
  - $145 for international students

WHEN IS THE APPLICATION DEADLINE?

There are limited seats available for this exciting new program. We will be reviewing applications as they come in, accepting qualified applicants until our spaces are full.

Apply right away to avoid missing out on our new master's degree in software engineering.

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School of Engineering