

### **Faculty of Engineering and Applied Science**

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### Q: What average do I need to get into Engineering?

A: Applicants will be accepted to the GENERAL ENGINEERING PROGRAM with a 70% average (or higher) on the required high school subjects. Applicants will be accepted to their MAJOR OF CHOICE with a 90% or higher average.

### Q: What classes do I need to get into Engineering?

A: English, Pre-Calculus, Chemistry and Physics. Calculus is highly beneficial to have.

## Q: What is the difference between a Software Systems Engineering degree and a Computer Science degree?

A: Computer Science focuses on understanding, designing and developing programs and computers. It concentrates on data, data transformation and algorithms. Specialized programming techniques and specific application domains are studied. CS is less structured than Engineering giving the student the flexibility to build their Program as they like. Software Systems Engineering deals with building and maintaining software systems. It is more software oriented and has a greater emphasis on large software applications. It places greater emphasis on the entire software development process, from idea to final product. It is more disciplined than CS, applying more systematic practices to help ensure that products are reliable and safe. A Software Systems Engineering degree is an accredited engineering degree that enables a student to become a Professional Engineer; whereas a CS degree is not a professional designation.

### Q: What does an engineer do?

A: Engineers design, evaluate, develop, test, modify, create, install, inspect, and maintain a wide variety of products and systems. They also recommend and specify materials and processes, supervise manufacturing and construction, conduct failure analysis, provide consulting services and teach engineering courses in colleges and universities.

### Q: What's the difference between the Co-op Program and the Internship Program?

A: The Co-op Program is 4 work terms that are sequenced throughout your 9 semester program. The Internship Program is one 12-16 month work term completed after your 7<sup>th</sup> semester.

#### Q: What if I want to change my program major?

A: You may change your major at any point in your program just by completing a Major Selection Form. Watch for the deadlines listed on the Engineering website!

# Q: I don't have the required average to get into Engineering; however, I still want to get in. What do I do?

A: You may apply to another faculty for your first semester and then when you have the appropriate classes and Grade Point Average you may transfer to the Faculty of Engineering and Applied Science.



### Q: What is "Systems" engineering?

A: Our Systems Engineering Program combines classes from several different areas such as business, economic, social, environmental and professional awareness. It focuses on the breadth of skills necessary for professional engineering practice in the modern world. Combining human elements of engineering with the technical side prepares the student to work in the broader context of multi-disciplinary, team design approach. In systems engineering, students learn to design in ways that account for the social and environmental impacts, end-of-life decommissioning, and resource management associated with a given project. Thus, designing a step ladder, for example, takes into account not just the ladder itself, but how its manufacture will impact the environment, whether or not it is recyclable, and the application of software to develop the most financially, environmentally, and ergonomically effective design, and so on.

### Q: What kinds of engineers are there?

A: There are literally hundreds of different kinds of engineers; aerospace and agricultural engineering to petroleum, nanotechnology and water resources. Whatever your passion is there is an engineering job for you! engineerscanada has a great comprehensive list of all accredited engineering programs in Canada. <a href="http://engineerscanada.ca">http://engineerscanada.ca</a>

## Q: How long will it take me to complete my degree?

A: If you are not in the Co-op Program is will take you 3 years 8 months to complete your degree. However, if you are in the Co-op Program it will take you approximately one year longer for you to finish. There is one spring/summer semester in which all students must attend full time classes.

## Q: Can I start in the summer right after high school?

A: It is not recommended. Take a break before you hit the books hard core! However, the UR has a High School Accelerated Program offered through the Centre for Continuing Education. Students are normally limited to one course per semester and can start as early as Grade 11. Please contact the Flexible Learning Division for more information at www.uregina.ca/cce/flexible-learning or 306-585-5836.

### Q: Can I study abroad while completing my Engineering degree?

A: Yes! However, you must work very closely with your academic advisor regarding the classes that you will take abroad. Studying abroad in your 3 or 4<sup>th</sup> semester is ideal. Plan early if you are thinking about studying abroad.

### Q: What is the academic workload like in Engineering?

A: A full load is 5 classes. In Engineering many classes have labs so you have to keep that in mind, too. Five classes can quickly turn into nine if you include labs! Engineering has a demanding workload and it is important that you organize your time efficiently. Homework and class attendance are crucial to academic success. On average, a diligent student will study at least 2 hours per 1 hour of classroom/lab time. 5 classes = 15 hrs/wk + 4 labs = 12 hrs/wk; 37 class hours/week. That's more than a fulltime job!