



MECHANICAL ENGINEERING

What is Mechanical Engineering?

Mechanical engineers use fundamental engineering concepts and contemporary design practices to develop new devices, materials, processes and systems. As a Western Mechanical engineering student, you will apply the principles of physics and materials science for analysis, design manufacturing and maintenance of mechanical systems, smart materials, automotive and aerospace systems, and robotics. Fourth-year students also complete a major Mechanical Engineering Design Project, working closely with faculty members and industry partners.

Design a better tomorrow



CAREER POSSIBILITIES

Motor Vehicle and Parts Manufacturing

Aircraft and Parts Manufacturing

Heating Ventilation and Air Conditioning

Biomedical Equipment Design

Power Generation

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MATTHEW CROSSAN

BESc. '15
MESC. '18

Vehicle Performance Engineer, Renault Sport Formula One

- Western Formula Racing Team 2012-2018, Member & Team Manager
- 2017 INFINITI Engineering Academy Winner (Canada)

“ Working with Renault Sport in Formula 1 as a result of winning the INFINITI Engineering Academy is a dream come true. I get to work alongside some of the top Mechanical Engineers in the world in an incredibly fast-paced environment. Almost everyday I find myself drawing on experience from my time on the Formula SAE Racing team at Western University where I was a Team Manager. I love the challenge of competing directly against other teams to come up with the most innovative designs. ”



WESTERN'S MECHANICAL ENGINEERING

All Western Engineering students must complete a common first year. Courses include: Applied Mathematics — Calculus, Applied Mathematics — Linear Algebra, Business for Engineers, Chemistry, Computer Programming Fundamentals, Foundations of Engineering Practice, Physics, Properties of Materials and Statics. Upon completing first year, students may apply to the Mechanical Engineering program.

Mechanical Engineering

In second and third year, the Mechanical Engineering courses are designed to provide a strong knowledge base in the core areas of Mechanical Engineering. In fourth year, students specialize in an area of study by taking five advanced technical electives. Students can use these courses to specialize in computer-aided design, energy conversion, automation and robotics, thermal and fluid engineering, biomechanical engineering, and more. Fourth-year students also complete a major Mechanical Engineering Design Project, working closely with faculty members and industry partners. This capstone course is an opportunity for students to address real-world design problems using the concepts and practices they have learned.

