



INTEGRATED ENGINEERING

What is Integrated Engineering?

Integrated engineers work across fields realizing opportunities by implementing practical solutions. At Western, Integrated engineering students have a broad foundation in engineering fundamentals, developing skills to manage the interface between engineering disciplines. They are ideally suited to participate on and lead interdisciplinary engineering and business teams to seek innovative solutions to significant challenges, including: climate change, renewable energy, environmentally friendly buildings, food and water security, autonomous transportation systems, and much more.

Become an innovation leader



CAREER POSSIBILITIES

Engineering Consulting

Engineering-based Startups

New Product Introduction and Management

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[eng.uwo.ca/undergraduate/
programs/integrated.html](http://eng.uwo.ca/undergraduate/programs/integrated.html)

HAIDA LIU BSc. '16

E.I.T./Scientist, Kinectrics

- International Exchange, National University of Singapore
- Practical Elements of Mechanical Engineering Certificate

“ Instead of specialized knowledge in one discipline, I wanted to have more opportunities when I graduated. This is why I chose Integrated Engineering at Western. Through my four years, I accomplished various projects with advanced technical skills, such as 3D printing/CNC, bridge design and robotics programming. Currently, my work at Kinectrics involves a full range of mechanical lab services for power transmission and distribution components. With my background in Integrated, I am able to wear multiple hats in Mechanical/Electrical/Materials engineering and project management. ”



WESTERN'S INTEGRATED 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 Integrated Engineering program.

Integrated Engineering

There is a strong need for broadly trained engineers who excel in management, are fluent in the languages of multiple engineering disciplines and are cognizant of innovative solutions. To meet this need, the Integrated Engineering program incorporates fundamentals from several engineering disciplines rather than concentrating on one. Unique in Canada, Western's Integrated Engineering curriculum incorporates case-method engineering innovation courses plus core courses from civil, chemical, electrical and mechanical engineering. By participating in case-based courses, Integrated Engineering students develop skills in leadership and innovation. Case-based courses include: New Venture Creation; Managing the Innovation Process; Engineering Leadership and Corporate Entrepreneurship and the Entrepreneurial Environment. The program prepares graduates to fill the technological innovation gap through work in almost any industry.

