



MECHANICAL & MATERIALS ENGINEERING

POSSIBLE MODULES

- Mechanical Engineering
- Mechanical Engineering & Biomedical Engineering

Combined Degrees

- HBA (Ivey Business School)
- JD (Faculty of Law)

Mechanical engineers use fundamental engineering concepts and contemporary design practices to develop new devices, materials, processes and systems.

Our students 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.

BUILDING YOUR EXPERIENCE



Check the [Academic Calendar](#) and review your [module requirements](#)



Discuss your progression and future goals with an [Academic Advisor](#)



Talk to a [Career Educator](#) about your steps after Western in terms of further education, career goals, certifications, and more.



Get the experience you need through opportunities at Western using Mustang Maps and the [Experience Catalogue!](#)

ABOUT THIS MAP

This map can be used to plan your journey through your undergraduate degree. You can create your own custom map at mustangmaps.uwo.ca.

MECHANICAL & MATERIALS ENGINEERING

PROFESSIONAL COMPETENCIES

Engage in these opportunities to build competencies for your future, including:

FIRST YEAR

MIDDLE YEARS

FINAL YEAR

FUTURE-FOCUSED PLANNER

- Look into [scholarships & awards](#)
- Find a [summer or part-time job](#) and update your [resume](#)
- Visit the Volunteer or [Leadership Fairs](#)
- Explore the many [opportunities](#) with Western Sport & Recreation

- Participate in the [PEME Externship](#)
- Participate in a [summer engineering co-op program](#)
- Talk to a [Career Educator](#) about putting your degree into practice
- Look into [graduate school](#) or [job opportunities](#)
- Start thinking about a [fourth year capstone project](#)

- Review [PEO's license requirements](#)
- Record your [pre-graduation experience](#)
- Update your [LinkedIn](#) profile and connect with employers through [information sessions](#) and [Career Fairs](#)
- Consider getting a [Professional Certificate in Project Management](#)
- Apply to [graduate school](#)

CRITICAL THINKER

- Look into future [research opportunities](#). Consider doing them [abroad](#)
- Learn about entrepreneurship through [clubs](#) on campus
- Drop by the [Engineering Leadership and Innovation Speaker Series](#) sessions

- Explore [MITACS research and internship](#) opportunities
- Apply internship skills at [Hack Western](#), [SheHacks](#), or a pitch competition like [Proteus](#)

- Submit your course work for an [Undergraduate Award](#)
- Visit [Propel](#) for access to mentorship and resources to start your own business or social enterprise

ADAPTABLE PROBLEM SOLVER

- Talk to a [Super Tutor](#) for help with course work
- Consider the [Extended First Year Program](#) if your courses aren't going as planned
- Learn about mental health resources through [online learning modules](#) or the [Wellness Education Centre](#)

- Develop academic skills at the [Writing Support Centre](#) or [Learning Development & Success](#)
- Get support from the [Peer Support Centre](#)
- Check out our [drop-in recreation or intramural opportunities](#)

- Get involved with [Active Minds Western](#)
- Drop in to a [Laura Evans Wellness Workshop](#)
- Explore [Group Care and Workshops](#)
- Check out [FRESH](#) online nutrition resources

GLOBAL LEARNER

- Check out [International Week](#) events
- Participate in a [summer program abroad](#)
- Explore [scholarships and funding](#) for international opportunities
- Engage with a [club](#) focused on cultural and international interests

- [Go abroad](#) in year 3. Plan in Year 2
- Volunteer with the [International & Exchange Student Centre](#)
- Consider the [faculty-led study abroad](#) course to Germany, [Engineering in a Global Context: Advanced Manufacturing](#)
- For more opportunities, [click here](#)

- Be an [International Learning Ambassador](#)
- Participate in the [World's Challenge Challenge](#)
- Submit your [Global and Intercultural Engagement Honour](#) requirements

COMMUNITY BUILDER

- Take part in [Indigenous Awareness Week](#) events
- Join the [Undergraduate Engineering Society](#)
- Join a club through the [USC](#) or [Faculty of Engineering](#), like the [Aero Design Club](#), [Western Formula Racing Club](#), or the [Baja SAE Club](#)

- Join the Professional Engineers Ontario's [Student Membership Program](#)
- Look into [Impact Experiences](#)
- Be an [Academic and Leadership Programmer](#) in residence
- Be a [Mustang fan](#) at the many free sporting events

- Join the [Ontario Society of Professional Engineers](#) or the [Canadian Society for Mechanical Engineering](#)
- Look into volunteer and job [Outreach opportunities](#)
- Get involved with [Western Peer Leaders](#)

INNOVATIVE LEADER

- Attend workshops as part of the [Learn to Lead Program](#)
- Apply to be a [residence](#) or [orientation student leader](#)
- Explore [leadership and work opportunities](#) with the USC

- Work towards the [Engineering Leadership and Innovation Certificate](#)
- Attend the [Learn to Lead Summit](#)
- Get [safeTALK](#) and/or ASIST trained
- Be a peer mentor through the [Leadership and Academic Mentorship Program](#)

- Look into leadership opportunities in [Engineering based clubs](#)
- Help first year students as a [Super Tutor](#)
- Consider becoming a [Peer Writing Advisor](#)
- Finish your requirements for the [Learn to Lead Leadership Certificates](#)

EXPLORE A YEAR-LONG INTERNSHIP OPPORTUNITY

GLOBAL AND INTERCULTURAL ENGAGEMENT HONOUR (GIEH)

- **Goal-orientation**
- **Motivation**
- **Organization**
- **Self-direction**

- **Curiosity**
- **Engagement**
- **Reflection**

- **Hopefulness**
- **Self-confidence**
- **Resourcefulness**
- **Creativity**

- **Equity**
- **Global awareness**
- **Social responsibility**

- **Authenticity**
- **Empathy**
- **Collaboration**
- **Self-awareness**

- **Integrity**
- **Judgement**
- **Intercultural communication**



PLACES TO CONNECT

- Academic Support & Engagement
- Careers & Experience
- Indigenous Student Centre
- Propel Entrepreneurship
- Sport & Recreation
- University Students' Council
- Western International
- Wellness & Well-being
- Western Libraries

Remember, these maps are intended to outline experiences that you could do. They are meant to help you find ways to enrich and personalize your Western experience. You should explore the maps based on your goals and interests, while keeping in mind your own capacity and personal boundaries.



WESTERN'S THRIVING CAMPUS

We want you to thrive throughout your time here at Western. We aim to make every student feel they have a community in which they can discover their interests, and engage with new ideas and people.

Helping you engage in your learning through practical experiences is just a fraction of what we offer; we have a wide breadth of services designed to help you address the challenges you might face along the way, including academic and career advice, and mental health resources.



TRACKING YOUR EXPERIENCE

Exploring opportunities to enhance your learning doesn't end with Mustang Maps. As you participate in co-curricular experiences, consider these tools to track your engagement and articulate your transferrable skills:

[Western's Co-Curricular Record](#) helps you showcase your experiences outside of the classroom to potential employers and graduate schools.

STUDENT EXPERIENCE
studentexperience@uwo.ca

FACULTY OF ENGINEERING
contactWE@uwo.ca

DEPARTMENT OF MECHANICAL & MATERIALS ENGINEERING
mmeundergraduate@uwo.ca