

Industrial Engineering

Made in Windsor.

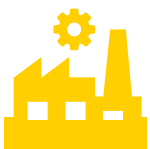


INDUSTRIAL ENGINEERING

INDUSTRIAL ENGINEERING (MINOR IN BUSINESS ADMINISTRATION)



uwindsor.ca/engineering



**Industrial Engineering
Experience Map**



**University
of Windsor**

Highlights and Skills

PROGRAM HIGHLIGHTS


Industrial Engineering

Hold the key to efficiency and cost effectiveness by learning to streamline production systems and design flexible manufacturing approaches. Through co-op, internships, and other industry partnerships, our curriculum emphasizes hands-on skills as well as theory. There's even an option to minor in Business. We teach transferable skills like leadership and we hire experts to teach communication skills.

MIN. AVG.* 74% ONTARIO COURSE REQUIREMENTS ENG4U, MHF4U, SCH4U and SPH4U required. MCV4U is strongly recommended. A minimum average of 74% in all math and science courses except biology is also required.

FUNCTIONAL KNOWLEDGE

- Understanding and implementing efficient processes for corporate logistics, warehousing and inventory management, and manufacturing supply chains
- Understanding and adhering to specific health, safety, and quality control frameworks and regulations
- Integrating human factors in product design
- Planning effective large-scale projects that manage resources and balance considerations including cost, quality, and speed
- Analyzing complex problems and breaking them down into steps/component parts
- Paying keen attention to detail and producing error-free work to precise quality standards

 Co-op available * Minimum grade point average for admission to program. A higher average may be required.

Build your Skills and Experience

Your UWindsor experience is more than attending classes. It is a combination of academics, co-curricular activities, and extracurricular involvement. By making the most of all three elements of your university experience, you will maximize your opportunities to build your skills, broaden your personal network, and clarify your long term academic and career goals.



CURRICULUM

Courses of study specific to each program



CO-CURRICULAR

Activities and experiences that complement coursework (Outstanding Scholars, peer mentoring, VIP)



EXTRACURRICULAR

Activities falling outside the scope of set curriculum (Part-time job, clubs, volunteering, athletics)

Career Planning Cycle

Intentional career planning will help you prepare for your next step after graduation and beyond. It is a fluid, dynamic, and lifelong process. You can move on or return to an earlier stage in the cycle at any time.



Explore Opportunities Using This Chart

Explore a selection of opportunities recommended for students in your program. This chart shows some of your many options – you don't have to do everything on it or limit yourself to it. Engage in opportunities from each of the three categories to set yourself up for success.

High-Impact Practice (HIP)

A HIP is an enriching educational experience that can be life-changing and often includes learning outside of the classroom while encouraging meaningful interaction and collaboration, such as:

- Co-op, internship or field experiences
- Research with faculty
- Culminating senior experience
- Capstone courses
- Service-learning
- Learning communities
- Study abroad

Academics

Your Coursework





First Year

- Take required courses that are common for all first-year engineering students to provide flexibility in program choice
- Review degree course requirements
- Meet with an academic advisor such as the undergraduate advisors or associate chair/head
- Receive academic support, mentoring and advising from the **WINONE** office in the **Centre for Engineering Innovation**

Middle Years

- Take required courses and check in with an academic advisor to make sure you are on the right path
- Look into completing a research project with a faculty member in final year 
- Begin taking courses in accordance with Industrial Engineering major requirements
- Consider completing a Business Administration minor and/or specialization to pair with degree
- Seek out courses that offer field experience 
- Start taking courses required as pre-requisites for graduate/professional school





Final Year





- Meet with an academic advisor to go over degree requirements
- Complete all required courses for your degree
- Apply to graduate through **UWinsite Student Portal**
- Work with a faculty member on a research project or publication 
- Consider completing required courses for **Honours Certificate in Civil, Environmental, Electrical or Mechanical Engineering** to pair with degree
- Choose a capstone project to optimize your senior experience 
- Explore professional development opportunities through **Continuing Education**

Experience

Ways To Get Involved



- Explore co-op options and consider applying in Fall of second year 
- Investigate research opportunities as part of the **Outstanding Scholars** program 
- Aid fourth-year students with their research for their final year capstone project 
- Gain experience by taking on a summer job
- Research student exchange opportunities for middle years 
- Join a club like the **Engineering Student Society, SAE Baja** or **Students Offering Support**
- Participate in the **Bystander Initiative** workshop to gain skills that will help you be an effective and supportive ally to prevent sexual assault on campus

- Join a professional association in your field such as the **Institute of Industrial and Systems Engineers**
- Participate in **UWill Discover** undergraduate research conference 
- Seek out opportunities to get experience at a local engineering firm and network with industry professionals
- Apply to co-op in fall of second year 
- Complete a 12 to 16 month co-op placement starting in the summer after second or third year 
- Apply for student exchange 
- Expand your skills by working full time in your off semesters or taking on a part-time or volunteer position during your academic terms
- Look for a leadership role in a club or society

- Take part in **Institute of Industrial Engineers ISE Annual Undergrad Conference** or **SAE Baja** competition against students from universities all over North America
- Become a tutor for **Students Offering Support (SOS)** 
- Utilize your knowledge and skills to complete a design experience project in your final-year collaborative capstone course 
- Complete all required technical and approved non-technical electives

Career

Plan Ahead For What's Next



- Start by making a list of things that you enjoy and areas in which you excel
- Meet with a career advisor in **Career Development and Experiential Learning (CDEL)** for help developing a plan for your future years
- Consider a career assessment appointment to help you identify possible career paths
- Get involved with a part-time job, volunteer opportunity, campus group, or research assistantship
- Attend **CDEL workshops** to learn how to find a summer or part-time job and write a university-level resumé
- Drop in to meet with one of **CDEL's** peer advisors to get answers to your career and job search questions
- Chat with an advisor during **CDEL's Drop In** hours to get answers to your career and job search questions

- Research career fields and occupations with the help of a **CDEL** career advisor
- Explore opportunities and meet potential employers by participating in **Job Shadow Experience**, job fairs and industry networking events
- Explore further educational opportunities by attending the **Graduate and Professional Schools Fair** and researching admission requirements for programs you are interested in
- Create a **LinkedIn** profile and have it critiqued by **CDEL**
- Take part in informational interviews and join online communities like **LinkedIn** and **Ten Thousand Coffees** to connect with people in your targeted profession or industry
- Search job postings to learn what skills, knowledge, and credentials you will need for potential careers

- If you are considering applying to graduate or professional school, be aware of early application deadlines
- Meet with **CDEL** to prepare application documents like a resumé, cover letter, CV, or personal statement for jobs and education programs you are applying to
- Attend **CDEL's workshops** on interview skills and job search strategies
- Set up a mock interview with a career advisor for professional school or job applications
- Take part in recruitment events and job fairs, including the **Engineering Career Fair** and others organized by **CDEL**
- Compose a portfolio of relevant academic and work experience
- Chat with an advisor during **CDEL's Drop In** hours to get answers to your career and job search questions

Life After Graduation

35 Number of Graduates
(2019)

94% Employment Rate of Graduates

Employment rate of graduates 2 years following degree completion (OUGS Engineering, 2018)

Career Tracks*

Assembly maintenance
Consultant
Design engineer
Doctor
Facility manager
Financial director
Industrial engineer

Industry trainer
Lawyer
Logistician
Marketing manager
Materials manager
Office manager
Operations director

Packaging specialist
Performance specialist
Policy analyst
Process engineer
Professor
Project manager
Public affairs officer

Quality assurance supervisor
Quality engineer
Research co-ordinator
Simulation analyst
Strategic logistics
Teacher
Technical specialist

*Additional education and/or training required for some of the above careers.



Common Industries For Graduates

- Academia and research
- Education
- Engineering
- Energy/utilities sector
- Government
- Industry and manufacturing
- Logistics and operations
- Patent/intellectual property law
- Technical consulting, sales, training

Career-Readiness Competencies



Critical Thinking & Problem Solving



Professionalism & Work Ethic



Teamwork & Collaboration



Communication





Campus Resources

- Research scholarships and bursaries through the **Student Awards and Financial Aid Office**
- Visit **Leddy Library** and the **Writing Support Desk** for help with academic assignments
- Check out the **Bounce Back** program designed to improve academic performance as well as decrease feelings of stress and anxiety through both effective learning strategies and life skills acquisition
- Build leadership skills and find leadership opportunities at the **Leadership Hub**
- Get advice and support about your academic status by making an appointment with **Academic Advising**
- Seek out assistance with academic accommodation from **Student Accessibility Services**
- Discover ways to get involved on campus through the **Student Success and Leadership Centre**
- Look into the **Ignite: Work Study** program for on-campus employment opportunities
- Get assistance developing your career plan and job search skills from **Career Development and Experiential Learning**
- Consult with the **EPICentre** if you are interested in starting your own business
- Broaden your cultural awareness through the **International Student Centre** and **Student Exchange Office**
- Find support for Indigenous learners and broaden your understanding of Indigenous culture by visiting **Turtle Island**
- Tend to your health and wellness with support from **Student Health Services**, the **Wellness Outreach Office** and **Lancer Recreation**
- Receive confidential mental health counselling delivered by trained professionals at the **Student Counselling Centre**
- **Prevent.Resist.Support.** Seek personal support or learn more about sexual violence prevention and resistance education through the **Sexual Misconduct Response and Prevention Office**
- Explore professional development opportunities through **Continuing Education**



experience.uwindsor.ca

Student Recruitment

Phone: 519-973-7014

Toll-Free: 1-800-864-2860

Email: info@uwindsor.ca

WINONE Office

Phone: 519-253-3000, Ext. 2560

Email: winone@uwindsor.ca

Career Development and Experiential Learning

Phone: 519-253-3000, Ext. 3895

Email: careerservices@uwindsor.ca