



University
of Windsor



ENVIRONMENTAL
ENGINEERING
EXPERIENCE MAP

ENVIRONMENTAL ENGINEERING



HIGHLIGHTS AND SKILLS

PROGRAM HIGHLIGHTS


Environmental Engineering

Ours was the first environmental engineering degree program in Canada and we've been leading the way ever since. In this comprehensive program, you'll get exposure to all aspects of the field — air, water, solid waste, sustainability, and more. UWindsor is home to the Great Lakes Institute for Environmental Research, giving students the opportunity for collaboration between science and engineering. We have a low faculty-to-student ratio and the resources to set you up for success.

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

- Designing processes and systems to remove contaminants before they are released into the environment
- Understanding contemporary best practices and long-term industry goals for sustainable, environmentally conscious technologies and processes
- 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
- Developing skills necessary to recognize the need for precision and detail in engineering design tasks
- Designing professional-quality products and processes, considering technical, environmental, ethical, and commercial considerations

 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.

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.

	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)



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



- 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 coordinator or department head
- Receive academic support, mentoring and advising from the **WINONE** office in the **Centre for Engineering Innovation**
- Attend **WINONE Tutorials** for first-year students for academic support and advice from peer mentors.

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
- Gain experience by taking on a summer job
- Research student exchange opportunities for middle years
- Join a club like the **Engineering Student Society**, **UWindsor Green** or **Engineers Without Borders**
- 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

CAREER

Plan ahead for what's next



- Create a list of things that you enjoy, areas in which you excel, and your skills
- 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

MIDDLE YEARS

- Take required courses and check in with 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 Environmental Engineering major requirements
- Learn about topics such as air pollution, water pollution control, chemical reaction engineering, environmental microbiology, waste management or sustainability
- Start taking courses required as pre-requisites for graduate/professional school
- Consider declaring a minor and/or specialization
- Select non-technical electives of interest

- Volunteer at a local environmental engineering firm to network with industry professionals
- Apply to co-op in fall of second year
- Participate in the **UWill Discover** undergraduate research conference
- Complete co-op work term I in the summer of second year and work term II in the summer of 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
- Run for class representative on **Department Council**
- Look for a leadership role in a club or society
- Consider for applying to be a **WINONE Tutorial Scholar** or volunteer to assist with outreach activities with the **WINONE Office**

- Research career fields and occupations with the help of a **CDEL** career advisor
- Explore opportunities and meet potential employers by participating in 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
- Attend the **engineering career fair** in June and the **annual job fair** in January
- Create a **LinkedIn** profile and have it critiqued
- 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

FINAL YEAR

- Meet with an academic advisor to go over degree requirements
- Complete all courses required for 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 Engineering** to pair with degree
- Choose a capstone project to optimize your senior experience
- Complete all required technical and approved non-technical electives
- Explore professional development opportunities uwindsor.ca/continuingeducation

- Join a professional association in your field such as the **Water Environment Association of Ontario**
- Complete co-op work term III in the fall semester
- Conduct field research with faculty member
- Become a tutor for **Students Offering Support (SOS)**
- Run for class representative on **Department Council** or a peer mentor for the **WINONE Tutorials**

- 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
- Use **InterviewStream** to practice your interview skills online
- Set up an in-person mock interview with a career advisor for professional school or job applications
- Compose a portfolio of relevant academic and work experience
- Consider registering as an EIT with **Professional Engineers Ontario**
- Attend the **engineering career fair** in June and the **annual job fair** in January
- Explore professional development opportunities through **Continuing Education**

LIFE AFTER GRADUATION



I chose engineering because I wanted to make a change in the world. The foundation of knowledge and engineering mindset I gained during my time at the University of Windsor has definitely done that for me. Be it my bioremediation research work in Northern Delhi, opportunities within the campus entrepreneurial community to develop my own business or simply participating in intramural sports leagues, there has been no shortage of opportunities for development and professional growth in the University of Windsor campus.”

Dylan Verburg – BAsC (Honours) in Environmental Engineering [2016]

91.2% EMPLOYMENT RATE OF GRADUATES

[OUGS Engineering, 2017]

CAREER TRACKS

Biological engineer
Design engineer
EHS manager
Energy resources manager
Environmental engineer

Environmental geologist
GIS modeler
Industry trainer
Marketing manager
Operations director

Policy analyst
Project manager
Quality assurance supervisor
Research and development
Water resources engineer



COMMON SECTORS FOR GRADUATES

- Academia and research
- Education
- Engineering
- Energy/utilities sector
- Environmental advocacy, conservation, consulting

- Government
- Industry and manufacturing
- Patent/intellectual property law
- Technical consulting, sales, training
- Telecommunications

CAREER-READINESS COMPETENCIES



CRITICAL THINKING
AND PROBLEM
SOLVING



PROFESSIONALISM
AND WORK ETHIC



TEAMWORK AND
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
- Learn about our **Bounce Back** program designed to support students struggling to find both personal and academic success in their post-secondary experience
- Build leadership skills and find leadership opportunities at the **Leadership Hub**
- Experience international service learning on an **Alternative Spring Break** team
- 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** and **Lancer Recreation**
- Receive confidential mental health counselling delivered by trained professionals at the **Student Counselling Centre**
- Seek personal support or learn more about sexual violence education through the **Sexual Misconduct Response and Prevention Office**
- Explore professional development opportunities through **Continuing Education**

We've got you covered!

GET IN TOUCH

STUDENT RECRUITMENT

Phone: 519-973-7014
Toll-Free: 1-800-864-2860
ask.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