

Civil Engineering

Made in Windsor.



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Civil Engineering
Experience Map



University
of Windsor

Highlights and Skills

PROGRAM HIGHLIGHTS


Civil Engineering

Build a bridge to success with our civil engineering program where you'll get a more comprehensive education than in the specialized programs offered at other schools. UWindsor's engineering programs have the highest level of accreditations, and our civil engineering program is no exception. Our civil degree is versatile and widely recognized in the industry.

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, assessing, building, and overseeing the construction of efficient, fit-for-purpose civil projects
- Understanding foundational topics in construction, geotechnical, structural, municipal, transportation, hydraulic, and water resource engineering
- 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
- Writing, preparing, and presenting detailed technical reports, presentations, and resources to engage diverse audiences and communicate work

 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
- Begin thinking about specific aspects of Civil Engineering to focus on for later years
- Meet with an academic advisor such as the undergraduate program advisor or department head
- Receive academic support, mentoring and advising from the **WINONE** office in the **Centre for Engineering Innovation**
- Attend **WINONE Tutorials** to receive tutoring and mentoring from your upper year engineering peers

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 Civil Engineering major requirements
- Start taking courses required as pre-requisites for graduate/professional school
- Consider declaring a minor and/or specialization
- Select non-technical electives of interest
- Consider completing required courses for **Honours Certificate in Environmental Engineering** to pair with degree
- Start planning your fourth-year **Capstone** project by attending **Capstone** display events and talk to senior students about their projects




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 
- Choose a capstone project to optimize your senior experience 
- Complete all required technical and non-technical electives





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, Engineers Without Borders, or Concrete Canoe Team**
- 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

- Participate in the **UWill Discover** undergraduate research conference 
- Apply to co-op in fall of second year 
- Complete co-op work term I in the summer of second year and work term II in winter 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

- Join a professional association in your field such as the **Canadian Society for Civil Engineering**
- Complete co-op work term III in the fall semester 
- Conduct field research with faculty member 
- Become a tutor for **Students Offering Support (SOS)** 
- Utilize your knowledge and skills to complete a design experience project in the final year collaborative capstone course 
- Run for class representative on **Department Council**
- Apply to be a **WINONE Tutorial Scholar** and become a peer mentor to first and second year engineering students

Career

Plan Ahead For What's Next



- Start by making a list of things 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
- 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 that interest you
- 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

- 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
- Compose a portfolio of relevant academic and work experience
- Consider registering as an EIT with **Professional Engineers Ontario**
- Take part in recruitment events and job fairs hosted by **CDEL** and other organizations
- Explore professional development opportunities through **Continuing Education**

Life After Graduation



Participating as a student representative on the Civil and Environmental Engineering Department Council helped me better my communication skills, taught me how to work with others toward a common goal, and improved my time management skills. I was given the opportunity to step out of the technical bubble and consider the bigger picture. Looking back, I feel grateful for working with professors that valued my input and implemented some of my ideas.”

Stephanie Dalo – BAsC in Civil Engineering

42 Number of Graduates
(2020)

92% Employment Rate of Graduates
(OUGS Engineering, 2019)

Career Tracks*

Bridge engineer
City planning engineer
Civil engineer
Concrete engineer
Consulting Engineer

Design engineer
Environmental specialist
GIS modeler
Operations director
Professor

Project manager
Quality assurance supervisor
Research co-ordinator
Structural engineer
Structural inspector

Teacher
Transportation engineer
Water resources engineer

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



Common Sectors For Graduates

- Academia and research
- Agriculture
- Construction, contracting, and development
- Consulting Engineering
- Education
- 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 undergraduate 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 **Central 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**
- Broaden your cultural awareness through the **International Student Centre** and **Student Exchange Office**
- Look into the **Ignite: Work Study** program for on-campus employment
- Get assistance developing your career plan and job search skills from **Career Development and Experiential Learning**
- Develop your entrepreneurial skills and learn how to start your own business at **EPICentre**
- Find support for Indigenous learners and broaden your understanding of Indigenous culture by visiting the **Aboriginal Education Centre - 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 **Office of Sexual Violence Prevention, Resistance & Support**
- Explore professional development opportunities through **Continuing Education**



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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

Web: uwindsor.ca/cdel

Email: careerservices@uwindsor.ca