EXPERIENCE MAP

Computer Science

FUTURE FULL OF PROMISE.

University of Windsor

- COMPUTER SCIENCE CO-OP AVAILABLE
- COMPUTER SCIENCE (APPLIED COMPUTING) CO-OP AVAILABLE
- COMPUTER SCIENCE (COMPUTER INFORMATION SYSTEMS) CO-OP AVAILABLE
- COMPUTER SCIENCE (SOFTWARE ENGINEERING) CO-OP AVAILABLE
- OTHER COMBINED PROGRAMS

Skills and Knowledge of Computer Science Graduates

PROGRAM HIGHLIGHTS

Software development, network and system analysis continue to be the top jobs with steady growth projected to grow through 2024, much faster than the average for all occupations. Our programs will prepare you to take your place in the technology industry or in research and academia.

Computer Science (Co-op available) - You'll learn in-depth, advanced theory in this four-year degree program, and gain practice in one of the following specializations: Artificial Intelligence; Game Development; Multimedia; Networks and Security

Computer Science (Applied Computing) (Co-op available) Acquire progressive, innovative tools and technology in computing, practical experience in developing software systems and the IT skills valued by industry.

Computer Science (Software Engineering Specialization) (Co-op available) - You'll learn about specification design, coding and the testing of software.

Computer Information Systems (Co-op available) - Focus on the application of computer technology in industry and commerce.

FUNCTIONAL KNOWLEDGE

- Using existing computer programming languages to create content and solutions to problems
- Designing, adapting, and modifying computer programming languages, simulations, and systems analyses to address specific needs
- Thoroughly understanding the complex ways in which modern digital technologies store, transmit, and process information across networks
- Writing, debugging, and testing software programs
- Asking carefully selected, probing questions to troubleshoot confusing situations when presented with technical problems
- Concentrate acutely on detailed, context-specific textual information; maintaining focus and identifying discrepancies

Degree Title / Program	Minimum Average	Admission Requirements
COMPUTER SCIENCE	70%	ENG. and ADV. FUNC required. CALC. VEC. strongly recommended. 70% average in all attempted Math courses. Co-op programs: 75%+70% average in all attempted Math courses, excluding DATA M.

- **Courses of study specific to each program**
- **Activities and experiences that complement coursework (Outstanding Scholars, peer mentoring, VIP)**
- **Activities falling outside of the scope of set curriculum (Part-time job, clubs, volunteering, athletics)**

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 Guide

Intentional career planning will help you prepare for your next step after graduation. It is a fluid, dynamic, and continuous process, meaning you can move on or return to an earlier stage at any time. You can even work through simultaneous cycles, like one for your long-term dream job and another for a summer job.

Explore Opportunities Using This Guide

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:

Academics
- *Your coursework*

Experience
- *Ways to get involved*

Career
- *Plan ahead for what's next*

HIP 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

	First Year	Middle Years	Final Year
Academics	• Take required courses including Introduction to Algorithms and Programming I and II • Review degree course requirements for all years of study and mesh them with professional or graduate school aspirations • Participate in our **PASS** program during **Welcome Week** to be coached on the skills necessary to be successful as a Faculty of Science student • Meet with a Computer Science academic advisor by e-mailing the department (**csinfo@uwindsor.ca**) for an appointment • Meet with an upper-year Computer Science tutor http://tutor.cs.uwindsor.ca/ for specific course help • Receive peer mentorship from an upper-year **MySci** advisor	• Take required courses and check in with academic advisor to make sure you are on the right path • Look into completing an undergraduate research project in final year HIP • Begin taking courses to specialize in Artificial Intelligence, Game Development, Multimedia, or Networks and Security • Consider applying for co-op option HIP • Seek out courses that offer experiential learning HIP • Continue taking courses required as preparation for professional schools • Study for and take professional school admission tests of interest • Consider declaring a minor and/or a specialization	• Meet with an academic advisor to go over graduation requirements • Complete all required courses for your degree • Apply to graduate through **MyUWindsor Portal** • Undertake an undergraduate research project with faculty member HIP • Complete courses in accordance with a minor/specialization if you are pursuing it
Experience	• Begin the process of becoming a **LEAD Medallion Scholar** and participate in credit and volunteer activities HIP • Apply for a co-curricular experience such as **VIP** HIP • Participate in local and regional programming competitions such as the **ACM-ICPC Regional Programming Competition** and other various hackathons and online competitions • *Discover* research opportunities as part of the **NSERC-USRA** Awards, project-based courses and the **Outstanding Scholars** program HIP • Join the **USci Network** to take part in collaborative and integrative science experiences • Join clubs such as the **Computer Science Society, Science Society, Students Offering Support** or create a **Computer Science** group • 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	• *Apply* your knowledge through a teaching assistant or tutor position within the School of Computer Science HIP • Participate in **UWill Discover** undergraduate research conference HIP • Earn while you learn by participating in co-op program work terms HIP • Be *Engaged* through service learning opportunities with **Let's Talk Science** and **Science Rendezvous** HIP • Expand your skills by taking on a summer, part-time or volunteer position • Gain valuable *Leadership* skills through roles within a club or Society • Gain a **Global Perspective of Science (GPS)** through an international exchange or by studying abroad HIP	• Join a professional association in your field such as the **Canadian Association of Computer Science** • Complete final co-op work term in the field of Computer Science HIP • Conduct field research with faculty member HIP • *Discover* summer internships at such companies as **Google, Microsoft,** and **Amazon** HIP • Become a tutor for **Students Offering Support (SOS)** or the **School of Computer Science** HIP • Become a **MySci** advisor to provide academic support and mentorship for first-year students • Complete **LEAD Medallion Scholars** in two areas for Bronze, three areas for Silver, or four areas for Gold in accordance with *Leadership, Engagement, Application, Discover* HIP
Career	• Create lists 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 workshop or 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 resumé and cover letter • Begin creating your technical portfolio and **Github** • Analyze the requirements for graduate or professional schools	• Research career fields and occupations with the help of a **CDEL** career advisor • Explore opportunities and meet employers through job fairs and employer 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 **CDEL's Using Social Media to Leverage Your Career** workshop • Create a **LinkedIn** profile and have it critiqued • 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 an **Interview Skills Workshop** and **Job Search Tips Workshop** • 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 • Meet employers at the annual job fair in January • Compose a portfolio of relevant academic and work experience

Computer Science

Life After Graduation

"I made some great friends in my program and had the chance to work on interesting group projects. I also was able to establish some great contacts through my job experiences as part of the co-op program. All in all, you will get out of Computer Science what you put into it."

Bryce St. Pierre - BCS in Applied Computing with Minor in Mathematics [2018]

86 Number of Computer Science Graduates (2017)

100% Employment rate of graduates 2 years following degree completion *(OUGS Computer Science, 2014)*

COMMON INDUSTRIES FOR COMPUTER SCIENCE GRADUATES

- **Academia**
- **Business:** Technical sales, analysis
- **Education:** Teaching, coaching, training
- **Information technology**
- **Research**
- **Software**
- **Telecommunications**
- **Web and eCommerce**

CAREER TRACKS*

App developer
Budget analyst
Computer programmer
Computing consultant
Data base administrator
Design specialist
Development analyst
Development consultant
Field service technician
Information specialist
IT manager
Lawyer
Marketing manager
Network administrator
Policy analyst
Professor
Project lead
Quality assurance engineer
Research and development
Security technician
Software developer
Systems engineer
Teacher
Technical analyst
Technical support
Video game developer
Visual technologist
Web developer

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

CAREER-READINESS COMPETENCIES

Critical Thinking and Problem Solving
Using strategic and creative thinking to make decisions and evaluate solutions

Teamwork and Collaboration
Working as a productive member of a group and collaborating with others to achieve set goals

Professionalism and Work Ethic
Demonstrating personal management practices and a high level of integrity and ethical behaviour

Communication
Appropriate and effective articulation of ideas and information to a range of audiences

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
- Explore mentorship opportunities through the **Connecting4Success (C4S)** and **Bounce Back** programs
- Improve study skills through the **Skills to Enhance Personal Success (STEPS)** program
- 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
- Apply to **VIP** to get involved in a community service learning experience
- 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**

Student Recruitment
Phone: 519-973-7014
Toll-Free: 1-800-864-2860
Email: info@uwindsor.ca

School of Computer Science
Phone: 519-253-3000, Ext. 2991
Email: csinfo@uwindsor.ca

Career Development and Experiential Learning
Phone: 519-253-3000, Ext. 3895
Email: careerservices@uwindsor.ca
experience.uwindsor.ca

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