Computer Science

Made in Windsor.

COMPUTER SCIENCE (BCS)

COMPUTER SCIENCE (BCS) (APPLIED COMPUTING)

COMPUTER SCIENCE (BCS) (COMPUTER INFORMATION SYSTEMS)

COMPUTER SCIENCE (BSc) (SOFTWARE ENGINEERING SPECIALIZATION)

BUSINESS ADMINISTRATION & COMPUTER SCIENCE (BCOMM)

uwindsor.ca/science/computerscience

Computer Science
Experience Map

University of Windsor

Highlights and Skills

Computer Science (BCS) 🅗🅣🅒 Unlock the code to a bright future in this program that is more hands-on than you'll find almost anywhere else. We partner with industry to get you career ready and we let you specialize in the area that interests you most. If you choose co-op, you will find flexible sequencing of four, eight or 12 months. Our computer science students are employed in their field within two years.

MIN. AVG.* 75% (75% for co-op) **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U. A minimum 70% average of math courses is also required. Co-op programs: 75% + 70% average in all attempted Math courses, excluding MDM4U.

Computer Science (BCS) (Applied Computing) 🅗 Join the real world of artificial intelligence, game development, multimedia, and networks and security from your first day of class. This program is more hands-on than what's offered elsewhere, and you will have lots of opportunities to network with industry leaders. Co-op is available, with flexible scheduling. You will find a job in your chosen field within two years of graduation. All our computer science grads do.

MIN. AVG.* 70% (75%* for co-op) **ONTARIO COURSE REQUIREMENTS** ENG4U, and MHF4U. MCV4U is strongly recommended. A minimum 70% average of math courses is also required. Co-op programs: 75% + 70% average in all attempted Math courses, excluding MDM4U.

Computer Science (BSc) (Software Engineering Specialization) 🅗🅖 Develop the hard skills you'll need for creating, designing and maintaining software in this specialized program. You will learn to apply the technologies and practices from computer science, project management, engineering, application domains, interface design, digital asset management and other fields to software engineering. UWindsor is tied for first in graduate employment rates. All our grads find jobs in their chosen field within two years of graduation.

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Computer Science (BCS) (Computer Information Systems) 🅗 Consider this — we are tied for first in graduate employment rate. All our grads in this program have found a job in their chosen field within two years of graduation. You'll have a strong foundation in the application of computer technology in industry and commerce. You'll gain insight into the latest technologies from our dedicated professors.

MIN. AVG.* 70% (75% for co-op) **ONTARIO COURSE REQUIREMENTS** ENG4U, and MHF4U. MCV4U is strongly recommended. A minimum 70% average of math courses is also required. Co-op programs: 75% + 70% average in all attempted Math courses, excluding MDM4U.

Business Administration and Computer Science (BComm) 🅗🅣 The combination of STEM and business in this program emphasize technology in a business setting. This is a program with hands on learning and many networking opportunities to gives you competitive advantage in the worlds of computer programming, gaming, banking, pensions and more.

MIN. AVG.* 73% (78% for co-op) **ONTARIO COURSE REQUIREMETNS** ENG4U and MHF4U are required. MCV4U is strongly recommended. A minimum 70% average of math courses is also required. A minimum grade of 70% in at least one grade 12 U Math course (or equivalent) is also normally required.

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
- Developing, 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

🤝 *Co-op available* 🅖 *General – 3-year program* 🅗 *Honours – 4-year program* 🅣 *Thesis available* 🅒 *Combined Honours programs 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.

MANAGE YOUR CAREER

5 FIND A JOB
1 ASSESS YOURSELF
2 EXPLORE CAREERS
3 EXPAND SKILLS
4 MARKET YOURSELF

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) (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 *Your Coursework*	• 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 **www.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 **UWinsite Student Portal** • Undertake an undergraduate research project with a faculty member (HIP) • Complete courses in accordance with a minor/specialization if you are pursuing it
Experience *Ways To Get Involved*	• Begin the process of becoming a **LEAD Medallion Scholar** and participate in credit and volunteer activities (HIP) • Participate in local and regional programming competitions such as the **CPC 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 for a co-curricular experience such as **VIP - Community Service Learning**	• 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 • 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 **Association for Computing Machinery (ACM)** • Complete final co-op work term in the field of Computer Science (HIP) • Conduct field research with a 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 *Plan Ahead For What's Next*	• Start planning your career by making a list of things you enjoy, your skills and areas where 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 Exploration Program** 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 • 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 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 by **CDEL** • Take part in informational interviews and join online communities like **LinkedIn** and **Ten Thousand Coffees** to connect with people in your target profession or industry • Search job postings to learn what skills, knowledge, and credentials you will need for potential careers	• 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 • Take part in recruitment events and job fairs hosted by **CDEL** and other organizations • Explore professional development opportunities through **Continuing Education** • If you are considering applying to graduate or professional school, be aware of early application deadlines

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

116 Number of Graduates
(2020)

95.6% Employment Rate of Graduates
Employment Skills Match rate of graduates 6 months following degree completion (OUGS Computer Science, 2019)

Career Tracks*

App developer	Development consultant	Network administrator	Systems engineer
Budget analyst	Digital Content Developer	Professor	Teacher
Computer programmer	Field service technician	Project lead	Technical analyst
Computing consultant	Game Developer	Quality assurance engineer	Technical support
Database administrator	Information specialist	Research and development	Technologist
Data Scientist	IT manager	Security technician	Visual technologist
Design specialist	Marketing manager	Software developer	Web developer
Development analyst	Multimedia Developer	Systems Analyst	

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

Common Sectors for Graduates

- **Academia**
- **Business:** Technical sales, analysis
- **Education:** Teaching, coaching, training
- **Government:** High performance computing, cyber security, artificial intelligence, policy development
- **Information technology**

- **Internet and Tech companies**
- **Research**
- **Software**
- **Service Industry**
- **Telecommunications**
- **Web and eCommerce**

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**

experience.uwindsor.ca

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

Web: uwindsor.ca/cdel
Email: careerservices@uwindsor.ca