Computing

Computer science is one of the top degrees in North America in terms of career opportunities. That's a good reason to study it – but it's not the only reason. It is also one of the most exciting and diverse subjects of study today, particularly at the Queen's School of Computing. Whether you're interested in software design, artificial intelligence, game development, or biomedical computation, we can offer you a vast range of courses to fit your interests – and that's only scratching the surface. Combine a Computing Major with a Minor in another discipline or take one of our more focused Specializations. The combinations are endless and will prepare you for today's fast-paced digital world, no matter what career you choose.



Computing is one of the top degrees for career opportunities in North America.

2 Learn from outstanding professors who are internationally recognized experts and committed educators.

Gain the skills and theoretical knowledge you'll need to excel as a computer scientist.

Take courses which reflect the sweeping uses of computing in all aspects of modern life.

Test the waters and explore your passions outside of computing while still immersed in our diverse multidisciplinary offerings.

Alumni Story

Susan Bartlett is a Queen's University alumna with a BSc in Software Design and a BA in English Literature. Through skills honed at Queen's, Susan leads teams of designers, researchers, and business strategists to deliver innovative solutions at Bridgeable. She is passionate about understanding the complex interactions people have with the world around them.

TOP ALUMNI JOBS

ADOBE[™] AMAZON™ APPLE™ **CBC/RADIO-**CANADA™ **CISCO SYSTEMS™ ELECTRONIC ARTS™ FACEBOOK™** GOOGLE™ IBM™ **MICROSOFT™** NASA™ ORACLE™ SICKKIDS HOSPITAL[™] **STATISTICS** CANADA™ **SYMANTEC™ TORONTO-DOMINION BANK™**









Thresholds are made on a competitive basis and are updated annually. To see the thresholds for all programs as well as the latest information, please visit quartsci.com/planselection

Interested in finding out how to augment your degree with Experiential Learning? Learn what opportunities and resources are available for you on the Experiential Learning website. You can also reach out to the team directly at asc.el@queensu.ca.

add a CERTIFICATE

Data Analytics

Disability and Physical Activity

Employment Relations

Entrepreneurship, Innovation and Creativity

French for Professionals

Geographic Information Science

Global Action and Engagement

Indigenous Languages and Cultures

International Studies

Media Studies

Sexual and Gender Diversity

Urban Planning Studies

<u>QUartsci.com/certs</u>

Acquire Skills. Gain Experience. Go Global.

That is a degree from Queen's.

cs.queensu.ca

2023-2024

Computing MAJOR MAP

BACHELOR OF COMPUTING (HONOURS): MAJOR, MINOR, SPECIALIZATION

	1ST YEAR	2ND YEAR	3RD YEAR	4TH OR F
GET THE COURSES YOU NEED	First year is a good time to consider which area of computer science you would like to study, while learning the foundations of computer science and taking electives. We offer 8 main pathways to a Computing degree (or BA in the case of Computing and the Creative Arts). Attend Majors Night in the Winter term to learn more about which path is right for you. Interested in getting a head start in learning and working in a digital world? Take <u>ASCX 150</u> and develop future-ready skills!	Start going deeper into the discipline of computer science, while considering a minor and/or certificate such as Entrepreneurship, Innovation and Creativity. Learn more about Certificates and Internship options. Want to make sure your academics are where you want them to be? Visit SASS (Student Academic Support Services) and the Writing Centre for some help. Develop your entrepreneurial skills by participating in the Dean's Changemaker Challenge (ASCX 200/300).	A chance to start grouping courses in areas of interest. This is where you will begin to dive deeper into your chosen area of computer science. Meet with an <u>Academic Advisor</u> to make sure you are on track to complete your degree plan and have planned out your courses for next year.	In fourth year year to participate in courses that car School or to you Make sure to fin for your major a minor and/or ce Interested in wo problem with ar ASCX 400 and de and project-mar
GET RELEVANT EXPERIENCE	Join teams or clubs on campus such as the Queen's Autonomous Sailboat Team (QAST). Participate in Open Source Development projects. Join the Queen's ACM Programming team. See the AMS Clubs Directory or the Queen's Get Involved page for more ideas.	Talk to the School and their faculty about research opportunities through <u>Undergraduate</u> <u>Summer Research Assistantships (NSERC/USRAs)</u> . Look into summer jobs by talking to the dept. or Career Services about work through <u>SWEP</u> or <u>Work-Study</u> . Join the <u>COMPSA Site Services team</u> to develop websites. Be a <u>COMPSA tutor</u> .	Stay during the summer as an assistant to a faculty member. Consider applying to the 12-16 month <u>Queen's Undergraduate Internship</u> Program through Career Services. Consult the <u>School's FAQ</u> and consider applying.	 Investigate requisits or other op careers of interest of interest of interest of interest or internships – Services skills w
GET CONNECTED WITH THE COMMUNITY	Volunteer on- or off-campus with different community organizations such as <u>Queen's</u> <u>Women in Computing (QWiC</u>). Offer your services to a non-profit organization. Organize after school programming or robotics clubs in the local elementary or secondary schools.	Get involved with the <u>Computing Students</u> <u>Association</u> (COMPSA). Consider volunteering with initiatives such as high school programming competitions, <u>Hour of Code</u> , or local FIRST Robotic teams. Consider entrepreneurial opportunities via programs like the <u>Queen's</u> <u>Innovation Connector Summer Initiative (QICSI)</u> .	Connect with professors at events or workshops hosted by the School, COMPSA and QWiC. Connect with alumni by joining the LinkedIn group <u>Queen's Connects</u> . Attend conferences like the <u>Canadian Celebration of</u> <u>Women in Computing (CAN-CWIC</u>).	 Consider joining associations like Processing Society Processing Society, and the Computing Mac Join groups on L specific careers Computing.
GET THINKING GLOBALLY	Prepare for work or studies in a multi-cultural environment by taking QUIC's <u>Intercultural</u> <u>Competency Certificate</u> and research possible immigration regulations. Speak to a QUIC advisor to get involved in their programs, events, and training opportunities.	Is an exchange in your future? Start thinking about where you would like to <u>study abroad</u> . Apply in January for a third year exchange through <u>the International Programs Office</u> .	Build your intercultural competence by getting involved with other cultures or by practicing or improving your language skills.	International stu staying in Canad International Stu O
GET READY FOR LIFE AFTER GRADUATION	Grappling with program decisions? Go to <u>Majors</u> Night or get some help wondering about career options from Career Services. Build your transferable skills in time management, organization, writing, and more with <u>Student Academic Success Services</u> .	Explore careers of interest in the Career Services Information Area. For more information check out <u>Career Cruising</u> or by finding and connecting with alumni on <u>LinkedIn</u> .	Start focusing on areas of interest. Research education requirements for careers of interest. If needed, prepare to take any required tests (like the MCAT or GMAT) and get <u>help thinking about Grad School</u> from Career Services.	Apply to jobs or make plans for o help from Caree searching, resur School application Apply for the Qu Apprenticeship:

How to use this map

Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. The map just offers suggestions – you don't have to do it all! To make your own custom map, use the My <u>Major Map</u> tool.



FINAL YEAR

r you will have the chance in research-based can lead to <u>Graduate</u> your future career path. finish up all your courses or and your optional r certificate(s).

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experience you're lacking s with volunteering, clubs, s – check out the Career s <u>workshop</u> for help.

ing professional like <u>Canadian Information</u> ociety, IEEE Computer the <u>Association for</u> lachinery (ACM).

n LinkedIn reflecting ers or topics of interest in

students interested in nada can speak with an <u>Student Advisor</u>.

or future education, or or other adventures. Get reer Services with job sumes, interviews, <u>Grad</u> ations, or other decisions.

<u>Queen's Career</u> iip: Kingston (QCA:K).

What will I learn?

A degree in Computing can equip you with:

Ability to design, develop and maintain software systems
Oral and written communication to summarize complex ideas and present data in visual formats
Ability to model and solve a diverse range of problems

- Critical thinking and systematic problem-solving approaches
- Proficiency in mathematics and logical computational thinking
- Resource and time management
- Project management

Where can I go?

A degree in Computing can take your career in many directions. Many students choose to continue their academic inquiry with a Master's. Our students are equipped with a strong foundation for careers in:

- 3D animation
- Artificial intelligence
- Biotech
- Computer programming
- Computing and the creative arts
- Cognitive science
- Cryptography and cybersecurity
- Data analytics
- Database administration
- Game development/design
- Software architecture
- Software development
- Software testing
- Systems administration
- Web development

and much more!

Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.

Computing



Get started thinking about the future now – where do you want to go after your degree? Having tentative goals (like careers or grad school) while working through your degree can help with short-term decisions about courses and experiences, but also help you keep motivated for success.

Get the help you need

Queen's provides you with a broad range of support services from your first point of contact with the university through to graduation. At Queen's, you are never alone. We have many offices dedicated to helping you learn, think and do.

Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming living and learning environment offers the programs and services you need to be successful, both academically and personally. Queen's wants you to succeed! Check out the <u>Student Affairs</u> website for available resources.



School of Computing Goodwin Hall 25 Union Street 613-533-6050 cs.queensu.ca

QUIPQUEEN'S UNDERGRADUATE INTERNSHIP PROGRAM

START DATES in May, September, or January	POSITIONS are paid and full-time	WORK TERMS are 12-16 months long			
 Graduate with a "Professional Internship" degree Learn about current advances, practices and technologies in business and industry. Test drive a career, earn a competitive salary, and get real world experience. 					
FLIGIBILITY ¹	2nd or 3rd Year Studen Minimum GPA of 1.9	ts			
 Gain a year of career-related work experience. Build network connections. Receive support from Queen's staff in job search and during internship. 					
SAMPLE PAST INTERNSHIPS					
Cognitive Analytics Development Intern Biochemistry Intern Biochemistry					

For more information, contact quip@queensu.ca or visit the Program Website.

Why study in Kingston?

For 175 years, our community has been more than a collection of bright minds – Queen's has attracted students with an ambitious spirit. Queen's has the highest retention rates, the highest graduation rates, and one of the highest employment rates among recent graduates. We are a research intensive university focused on the undergraduate experience. The BBC has identified Kingston as one of the versity closer than you think GREATEST UNIVERSITY TOWNS in the world - and it is often awarded the safest city in Canada. It is a university city at the core; just a quick drive to Toronto, Montreal, Ottawa and even New York. A university with more clubs per capita than any other university in Canada, and a city with more restaurants per capita than any other city in North America you will have London / 7 hrs CANADA Oueen's the experience of a Beijing / 15 hrs lifetime at Queen's Dubai / 14 hrs - and graduate Calgary / 4 hrs Vancouver / 5 hrs with a degree that is globally Halifax / 2 hrs San Francisco / 5.5 hrs Kingston Toronto recognized Denver/3hrs among New York / 1.5 hrs UNITED the best. STATES Dallas / 3.5 hrs Atlanta / 2 hrs Bermuda / 2 hrs