The specialization in Computing and Mathematics is for students aiming to do graduate work in the theory of computing or in an applied area of Computing that requires significant mathematical expertise, such as communications, optimization, security, or biomedical computing. This program gives students a potent combination of skills in computer science as well as mathematics, preparing them well to pursue advanced degrees or take up careers in a variety of areas in the industry.
What will I learn?
A degree in Computing can equip you with valuable and versatile skills, such as:
- 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 animator
- Biomedical computing
- Biotechnician
- Computer programmer
- Cryptographer
- Database administrator
- Game development/design
- Graphic artist
- Information architect
- Robotics
- Robotics
- Software architect
- Software developer
- Software tester
- Sound designer
- Systems analyst
- Web developer

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

GET THE COURSES YOU NEED

1ST YEAR

- In first year you will have the chance to explore the foundations of Computing and Mathematics along with some electives. See the back page for specific courses to consider.
- Attend Majors Night in the Winter term to learn more about Plan options.

2ND YEAR

- Start going deeper into the discipline of Computing and Mathematics, while considering a certificate such as Geographic Information Science. Attend Degree in the Fall term to 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.

3RD YEAR

- A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Computing and Mathematics. Meet with an Academic Advisor to make sure you are on track and have planned out your courses for next year — for some ideas, see the back page.

4TH OR FINAL YEAR

- In fourth year you will have the chance to participate in research-based courses that can lead to Graduate School or to your future career path. Make sure to finish up all your courses for your degree and your optional certificate(s).

GET RELEVANT EXPERIENCE

- Join teams or clubs on campus such as the Mostly Autonomous Sailboat Team (MAST).
- 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 Undergraduate Summer Research Assistantships (INSERCUSRAI).
- Look into summer jobs by talking to the dept. or Career Services about work through SWEP or Work-Study. Join the COMPSA Site Services team to develop websites. Be a COMPSA tutor.
- Stay during the summer as an assistant to a faculty member. Consider applying to the 12-16 month Queen's Undergraduate Internship Program through Career Services. Consult the School's FAQ and consider applying.
- Investigate requirements for full-time jobs or other opportunities related to careers of interest.
- Assess what experience you're lacking and fill in gaps with volunteering, clubs, or internships — check out the Career Services skills workshop for help.

GET CONNECTED WITH THE COMMUNITY

- Volunteer on or off campus with different community organizations such as Women in the School of Computing Group. 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 Computing Students Association (COMPSA). Consider volunteering with initiatives such as high school programming competitions. Hour of Code, or local FIRST Robotics teams. Consider entrepreneurial opportunities via programs like the Queen's Innovation Connector Summer Initiative (QICSI).
- Connect with professors at events or workshops hosted by the School, COMPSA and WISC. Connect with alumni by joining the LinkedIn group Queen's Computing Machinery (ACM). Attend conferences like the Canadian Celebration of Women in Computing (CAN-CWIC).
- Consider joining professional associations like Canadian Information Processing Society, IEEE, Computer Society, and the Association for Computing Machinery (ACM). Join groups on LinkedIn reflecting specific careers or topics of interest in Computing.

WHERE CAN I GO?

- International students interested in staying in Canada can speak with an International Student Advisor.
- Consider a 12-month internship.

GET THINKING GLOBALLY

- Prepare for work or studies in a multi-cultural environment by taking Queen's Intercultural Competency Certificate, and research possible immigration regulations.
- Speak to a QAIC 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 study abroad. Apply in January for a third year exchange through the International Programs Office.
- Build your intercultural competence by getting involved with other cultures or by practicing or improving your language skills.

GET READY FOR LIFE AFTER GRADUATION

- Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services.
- Build your transferable skills in time management, organization, writing and more with Student Academic Success Services.
- Explore careers of interest by reading books in the Career Services Information Area, such as Careers in High Tech. For more information check out Career Cruising or by finding and connecting with alumni on LinkedIn.
- 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 help thinking about Grad School from Career Services.
- Apply to jobs or future education, or make plans for other adventures. Get help from Career Services with job searching, resumes, interviews, Grad School applications, or other decisions.