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.

1. 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.
3. Gain the skills and theoretical knowledge you’ll need to excel as a computer scientist.
4. Take courses which reflect the sweeping uses of computing in all aspects of modern life.
5. Test the waters and explore your passions outside of computing while still immersed in our diverse multidisciplinary offerings.

Susan Bartlett is a Queen’s University alumna with a BSc from the School of Computing. 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.

*Thresholds are made on a competitive basis and are updated annually. For the latest information please visit: QUarts.com
GET THE COURSES YOU NEED

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.

GET RELEVANT EXPERIENCE

Join teams or clubs on campus such as the Mostly Autonomous Sailboat Team (MAGT). 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.

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 THINKING GLOBALLY

Prepare for work or studies in a multi-cultural environment by taking QUIC’s Intercultural Competency Certificate, and research possible immigration regulations.

Speak to a QUIC advisor to get involved in their programs, events, and training opportunities.

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.

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
• 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 make a smooth transition to the world of work after graduation.
**Computing and Mathematics degree PLAN**

### Sample Year by Year

#### 1ST YEAR
- CISC 121/3.0
- CISC 124/3.0
- 6.0 units from (CISC 102/3.0 and MATH 112/3.0) or (CISC 102/3.0 and MATH 111/6.0) or MATH 110/6.0
- 6.0 units from MATH 120/6.0, MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0)
- 12.0 units of electives

#### 2ND YEAR
- CISC 203/3.0
- CISC 204/3.0
- CISC 221/3.0
- CISC 223/3.0
- CISC 235/3.0
- CISC 260/3.0
- MATH 225/3.0 or MATH 231/3.0
- MATH 272/3.0 or MATH CISC 271/3.0
- MATH 221/3.0 or MATH 280/3.0
- STAT 263/3.0 or STAT 269/3.0

#### 3RD YEAR
- CISC 322/3.0 or CISC 326/3.0
- CISC 324/3.0
- CISC 365/3.0
- 6.0 units from MATH 210/3.0, MATH 211/6.0, MATH 310/3.0, MATH 311/3.0, MATH 413/3.0, MATH 414/3.0
- STAT 268/3.0 or STAT 351/3.0
- 12.0 units of electives

#### 4TH YEAR
- CISC 497/3.0
- CISC 499/3.0 or CISC 500/6.0
- 12.0 units from COMA_Options
- 12.0 units of electives

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Note that degree requirements are revised regularly. The most current requirements, including course lists and options, are found in the Academic Calendar at: [QUartsci.com/academic-calendar](http://QUartsci.com/academic-calendar)