Computers can play chess – could they one day diagnose illnesses or write symphonies? These are questions explored in our Cognitive Science program. Cognitive scientists are probing the concept of intelligence in humans and animals – trying, indeed, to define it – in order to program intelligent computers that are not only capable of performing complex tasks, but of thinking complex thoughts. Drawing on psychology, philosophy, linguistics, neuroscience, and computing, this ambitious, far-ranging program explores the science of the mind and thought.
**COGNITIVE SCIENCE**

**SPECIALIZATION MAP**

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**1ST YEAR**

**GET THE COURSES YOU NEED**

In first year you will have the chance to explore the foundations of Computing along with some electives.

See the back page for specific courses to consider.

Attend **Major Night** in the Winter term to learn more about Plan options.

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**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.

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**GET CONNECTED WITH THE COMMUNITY**

Volunteer on an 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.

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**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.

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**GET READY FOR LIFE AFTER GRADUATION**

Grappling with program decisions? Go to **Major 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**.

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**2ND YEAR**

**GET THE COURSES YOU NEED**

Start going deeper into the discipline of Cognitive Science, while considering a certificate such as **Media Studies**. 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.

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**GET RELEVANT EXPERIENCE**

Talk to the School and their faculty about research opportunities through **Undergraduate Summer Research Academy (USRA)**. Look into **summer jobs** by talking to the dept. or **Career Services** about work through **SWE/P** or **Work-Study**. Join the **COMPSA Site Services team** to develop websites. Be a **COMPSA tutor**.

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**GET CONNECTED WITH THE COMMUNITY**

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)**.

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**GET THINKING GLOBALLY**

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**.

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**GET READY FOR LIFE AFTER GRADUATION**

Explore careers of interest by reading books in the **Career Services Information Area**, such as Career in High Tech. For more information check out **Career Cruising** or by finding and connecting with alumni on LinkedIn.

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**3RD YEAR**

**GET THE COURSES YOU NEED**

A chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Cognitive Science. 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.

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**GET RELEVANT EXPERIENCE**

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.

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**GET CONNECTED WITH THE COMMUNITY**

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**. Attend conferences like the **Canadian Celebration of Women in Computing (C4WIC)**.

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**GET THINKING GLOBALLY**

Build your intercultural competence by getting involved with other cultures or by practicing or improving your **language skills**.

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**GET READY FOR LIFE AFTER GRADUATION**

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.

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**4TH OR FINAL YEAR**

**GET THE COURSES YOU NEED**

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 major and your optional certificate(s).

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**GET RELEVANT EXPERIENCE**

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.

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**GET CONNECTED WITH THE COMMUNITY**

Consider joining professional associations like the **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.

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**GET THINKING GLOBALLY**

International students interested in staying in Canada can speak with an **International Student Advisor**.

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**GET READY FOR LIFE AFTER GRADUATION**

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.

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**INTERNATIONAL PROGRAMS OFFICE**

Consider a 12-16 month **QUIP Internship**.

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**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

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**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 have a smooth transition to the world of work after graduation.