Why GRADUATE STUDIES in NEUROSCIENCE?

The multidisciplinary graduate program in Neuroscience is educating the next generation of leaders who will build on the progress in reducing the impact of neurological disorders. Top students from across North America and beyond come to the Centre to learn in a collaborative environment where they can learn from the best minds in the field. The Neuroscience graduate program is firmly rooted in research because our objective is to produce highly-trained graduates who will continue our efforts to prevent and treat neurological diseases. The program offers studies spanning the full spectrum of neuroscience research, from cellular/molecular to clinical studies.

Why QUEEN’S?

At the forefront of discovery and innovation is the Centre for Neuroscience Studies (CNS) at Queen's University. A hub of multidisciplinary research and teaching aimed at improving the understanding of the brain, how it works and how new therapies and diagnoses can play an important role in the prevention and treatment of diseases like Parkinson’s, Alzheimer’s, Stroke, Obesity, Fetal Alcohol Spectrum Disorder, Schizophrenia, Behavioral Disorders, and Depression.

The Centre for Neuroscience Studies (CNS) welcomes applications from students from a variety of different academic backgrounds. It offers an interdisciplinary program recruiting expertise from a wide range of research areas and backgrounds, ranging from the use of cellular/molecular and genetic approaches to those that emphasize neuronal systems, whole organism and clinical studies.

“Right from the day I started at the Centre for Neuroscience Studies, it felt like family. The camaraderie and support you get is amazing.”

– Alicia Peltsch, PhD

Program STRUCTURE

PhD (4 years, full time): Research project, seminar series, thesis, defense, and a comprehensive examination in 2nd year.

Research AREAS

The CNS has four research areas of strength in Decision Making and Adaptive Control, Mood Disorders, Neurodegeneration and Pain. There are also many other neuroscience topics studied under the umbrella of the CNS. Our research spans cellular molecular research, systems, behavioural, cognitive and clinical applications.

Visit the Neuroscience website to learn more about faculty members and their research areas. When you find a faculty member with similar research interests to yours, contact him/her and tell them about your interest in graduate work and related experience.
2022-2023

Neuroscience PhD Map

DOCTOR OF PHILOSOPHY (PHD)

YEAR I

- Key priorities include your relationship with your supervisor, completing required health and safety, animal, human research ethics training and any required coursework, developing your research proposal, and finishing part 1 of your PhD thesis form.

YEAR II

- Priorities include pursing research, completing your comprehensive exam, and writing your Annual Report.
- Find your way through the academic process with the help of workshops offered through the School of Graduate Studies and Postdoctoral Affairs.

YEAR III

- Continue to research, write your dissertation and finish your Annual Report. Check out the SGSPA, writing camps, like Dissertation Boot Camp.
- Consider publishing elements of your research. Learn from the School of Graduate Studies and Postdoctoral Affairs professional development publishing workshops.

YEAR IV

- Present your research to Neuroscience graduate students and faculty.
- Complete and defend your dissertation.
- Continue to pursue publication options.
- Complete PhD Thesis Form Part 2 at least 4 months prior to defense, and your Annual Report.

WHAT WILL I LEARN?

A graduate degree in Neuroscience can equip you with:
- Knowledge and technical skills
- Effective communication skills in multiple forms for diverse audiences
- Information management: prioritize, organize and synthesize large amounts of information
- Time management: meet deadlines and manage responsibilities despite competing demands
- Project management: develop ideas, gather information, analyze, critically appraise findings, draw and act on conclusions
- Creativity and innovation
- Perseverance
- Independence and experience as a collaborative worker
- Awareness, an understanding of sound ethical practices, social responsibility, responsible research and cultural sensitivity
- Professionalism in all aspects of work, research, and interactions
- Leadership: initiative and vision leading people and discussion

WHERE CAN I GO?

A PhD in Neuroscience can take your career in many directions. In Canada, less than 40% of all PhDs will work in post-secondary education -- the majority will work in industry, government, or non-profits:
- Post-doctoral study or academia
- Outreach education
- Scientific writing
- Neurotech Industry
- Pharmaceutical companies
- Medical school
Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.

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 Major Map tool.

ACHEIVE YOUR ACADEMIC GOALS

- Key priorities include your relationship with your supervisor, completing required health and safety, animal, human research ethics training and any required coursework, developing your research proposal, and finishing part 1 of your PhD thesis form.

MAXIMIZE RESEARCH IMPACT

- Complete CORE online module on research ethics if doing research regarding sensitive topics.
- Apply to CIHR, NSERC, SSHRC, Heart and Stroke Foundation and other funding
- Attend or present at a local, national or international research conference in your field of expertise

BUILD SKILLS AND EXPERIENCE

- Serve on departmental, faculty or university committees.
- Consider positions in student services, the SGSP, or media outlets like the Queen's Journal, CFRC, and the SGSPA Blog. Look in the AMS Clubs Directory.
- Use a Teaching Assistant or Research Assistant position to develop your skills and experience.

ENGAGE WITH YOUR COMMUNITY

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with different community organizations, such as the Neuroscience Outreach Program.
- Attend the seminar series put on by the Centre for Neuroscience Studies.

LAUNCH YOUR CAREER

- Finding career fit starts with knowing yourself. Take a Career Services workshop or meet with a career counsellor for help.
- Start reading publications like Science and Nature or the Journal of Neuroscience. Browse non-academic labour market websites.
- Stay on the lookout for special events like School of Graduate Studies and Postdoctoral Affairs Career Week to explore your career pathways.

- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.

- Hone skills for non-academic employment by continuing involvement on committees and in community.
- Start keeping an eportfolio of your skills, experiences and competencies.
- For help with teaching, get support from the Centre for Teaching and Learning. Enroll in SGS902 or the PUTL Certificate for more professional development in teaching and

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- Do some targeted networking with people working in careers of interest, through Queens Connects on LinkedIn, the Queen's Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
- Continue targeted networking with people working in careers of interest. Join groups on LinkedIn reflecting specific careers or topics of interest in Neurosciences.
- Consider joining one of the many professional associations like the Society for Neuroscience (SfN), or the Canadian Association for Neuroscience (CAN)

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- Continue to attend conferences and connect with scholars in your field and with community partners.
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- Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews. Get help from a Career Services workshop.

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Graduate Studies FAQs

How do I make the most of my time at Queen’s?

Use the Grad Map to plan for success in five overlapping areas of your career and academic life. Everyone’s journey is different - the ideas on the maps are just suggestions to help you explore possibilities. For more support with your professional development, take advantage of the SGSPA professional development framework and the new Individual Development Plan (IDP) process to set customized goals to help you get career ready when you graduate.

Where can I get help?

Queen’s provides you with a broad range of support services from your first point of contact with the university through to graduation. Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming environment offers the programs and services you need to be successful, both academically and personally. Check out the SGSPA website for available resources.

What is the community like?

At Queen’s, graduate students from all disciplines learn and discover in a close-knit intellectual community. You will find friends, peers and support among the graduate students enrolled in Queen’s more than 130 graduate programs within 50+ departments & research centres. With the world’s best scholars, prize-winning professional development opportunities, excellent funding packages and life in the affordable, historic waterfront city of Kingston, Queen’s offers a wonderful environment for graduate studies. Queen’s is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown with its shopping, dining and waterfront. For more about Kingston’s history and culture, see Queen’s University’s Discover Kingston page.

Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- A Master’s degree in Neuroscience, or in a field with a strong neuroscience and research component.

ADDITIONAL REQUIREMENTS
- Statement of Interest.
- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The following minimum scores are required: (1) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30). Applicants must have the minimum score in each test as well as the minimum overall score, or (2) IELTS: 7.0 (academic module overall band score and a 7.0 for each test band), or (3) PTE Academics: 65, or (4) CAEL CE -70 (minimum overall score).

KEY DATES & DEADLINES
- Application due: To be eligible for internal awards, applications must be submitted by February 1st. Applications received after the deadline will be accepted based on supervisor availability.

Before you start your application, please review the Graduate studies application process.

What about FUNDING?

PhD students in Neurosciences are offered a minimum funding of $23,000 per year. As part of the minimum funding package, you may serve as a Teaching Assistant, but it is not guaranteed. The Centre for Neuroscience offers numerous academic awards. Applicants to the Centre for Neuroscience program with external funding awards will have a greater opportunity of being accepted to the program.

Apply for external funding from OGS, CIHR/NSERC and other sources. Queen’s will automatically issue a one time $5,000 top-up to Master’s winners of federal government tri-council awards. See the School of Graduate Studies and Postdoctoral Affairs’ information on awards and scholarships for more.