**Application FAQs**

**What do I need to know to APPLY?**

**ACADEMIC REQUIREMENTS**
- MSc in Biology or direct entry from BSc for exceptional candidates.

**ADDITIONAL REQUIREMENTS**
- Correspond with potential supervisors (may require CV).
- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (internet-based) 80, IELTS: 6.5, TOEFL (IBT): Writing: 20/30, Reading: 22/30, Listening: 20/30, Speaking: 22/30. For more information, see the School of Graduate Studies’ information on available resources.

**What about FUNDING?**

The minimum funding guarantee for Biology PhD students is $24,800 per year, throughout years 1-4. The funding package may be comprised of graduate awards and teaching assistantships.

Apply for external funding from OGS, NSERC and other sources. Queen’s will automatically issue a one time $10,000 award to Doctoral students who have won federal government tri-council awards.

**Why GRADUATE STUDIES in BIOLOGY?**

There is no end to the fascinating questions we can ask about how the natural world functions, from dissecting the molecular mechanisms at play in cells to understanding the complexity of interactions in the biosphere, the beauty and mystery of nature astounds. It is an incredibly exciting time to do biological research and we are learning about the natural world at a rate unprecedented in history. The remarkable power of modern research tools, from powerful gene-editing techniques to bioinformatics to ecosystem modelling, is driving exciting discoveries daily. These discoveries are made by graduate students. Regardless of your area of interest, there is something in biology for you, questions waiting to be answered, and riddles of natural to be solved.

“When I started my [Biology graduate degree] at Queen’s, all of a sudden I had this new network of friends who were interested in the same biological questions that I was—it was a ton of fun.”

– Roslyn Dakin, PhD

**Why QUEEN’S?**

The Biology Department at Queen’s is one of the largest departments on campus with approximately 100 graduate students supervised by 32 faculty with research opportunities in a range of disciplines. Our faculty are world leaders in several research fields, including many Canada and Queen’s Research Chairs and winners of national and international awards for research and teaching excellence.

**RESEARCH Areas**

- Animal Physiology
- Cell and Molecular Biology
- Ecology, Evolution and Behaviour
- Plant Science
- Mathematical Modeling & Bioinformatics

We encourage you to identify an area of research interest and contact a potential supervisor before applying.

Visit the Biology Department website to read faculty profiles and learn more about faculty members' 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.
ACHIEVE YOUR ACADEMIC GOALS

- Key priorities include forming your committee, coursework, field exams, and language exams.
- Meet early with your supervisor to discuss and set expectations, roles, responsibilities, program requirements, resources, research/occupational goals, timelines, and any required accommodation plans.
- Attend and participate in graduate seminars such as Departmental Seminars, EEB, Limnology, and MCB Seminars, as well as the All Downe Lecture.
- Write and defend your thesis proposal.
- Embark on your substantive research.
- Set up regular meetings with your supervisor to discuss progress and obstacles to timely completion.
- Find your way through the academic process with the help of Expanding Horizons and the SGS, Habitat.
- Seek experiential/professional development opportunities.

MAXIMIZE RESEARCH IMPACT

- Think about audiences for your research.
- Complete ROMED online module on research ethics if doing research with living people or sensitive topics.
- Apply to NSERC, OGS, and other funding.
- Attend conferences in your field.
- Attend or present at a graduate conference such as those hosted by the Canadian Society for Ecology and Evolution, Society for Experimental Biology, Canadian Society of Plant Biology, or the many other groups that feature graduate research.
- Apply for the Graduate Dean's Travel Grant for Doctoral Field Research.
- Complete the Annual Research Progress Report (1/2).
- Attend a conference.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Contact the Queen's Media Centre for guidance on speaking to news outlets about your work. List yourself on the Arts and Science University.
- Attend or present at conferences.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Contact the Queen's Media Centre for guidance on speaking to news outlets about your work.
- Begin teaching as a departmental Teaching Fellow.
- Find opportunities for extra training through CTL, Expanding Horizons, Mitacs, or other sources to boost your skills. Investigate internships from Mitacs and other sources.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QULC and FDSE.

BUILD SKILLS AND EXPERIENCE

- Serve on departmental, faculty or university committees. Talk to the Biology Graduate Student Council for tips on getting involved.
- Consider positions in student services, the SGPS, or media outlets like the Queen's Journal, CRPC, and the SGS Blog. Look in the AMS Clubs Directory.
- Use a Teaching Assistant or Research Assistant position to develop your skills and experience.
- Hone skills for non-academic employment by continuing involvement on committees and in the community.
- Start keeping an eportfolio of your skills, experiences and competencies.
- For help with getting, get support from the Centre for Teaching and Learning. Enrol in SGS502 or the PUTL certificate for more professional development in teaching and learning.
- Begin teaching as a departmental Teaching Fellow.
- Find opportunities for extra training through CTL, Expanding Horizons, Mitacs, or other sources to boost your skills. Investigate internships from Mitacs and other sources.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QULC and FDSE.
- Do some targeted networking with people working in careers of interest, through QueenConnects on LinkedIn, the Queen's Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
- Join professional associations like Science for Peace, and the many discipline-specific societies that host annual meetings.
- Join groups on LinkedIn reflecting specific careers or topics of interest.

ENGAGE WITH YOUR COMMUNITY

- Consider volunteering with different community organizations such as Science Rendezvous.
- Consider volunteering with different community organizations, museums, and cultural studies groups, such as the Kingston Field Naturalists.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- Do some targeted networking with people working in careers of interest, through QueenConnects on LinkedIn, the Queen's Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
- Have conversations with Queen's alumni, or find alumni in various careers through "Ask an Alumni" for more information check out Career Cruising.
- Investigate opportunities for full-time jobs or other opportunities related to careers of interest.

LAUNCH YOUR CAREER

- Finding a career that fits starts with knowing yourself. Get help by taking a Career Services workshop or meeting with a career counselor. Check out books like So What Are You Going to do With That? or Planning a Scientific Career in Industry from the Career Resource Area for advice on various career options.
- Start reading publications like University Affairs and the Chronicle of Higher Education. Browse non-academic labour market websites. Stay on the lookout for special events like School of Graduate Studies Career Work to explore your career pathways.
- Start building your teaching portfolio including student evaluations, and seek mentorship.
- Explore different careers of interest by reading alumni profiles on the SGS website, and using QueenConnects on LinkedIn to connect with Queen's alumni, or find alumni in various careers through "Ask an Alumni" for more information check out Career Cruising.
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.

YEAR I

YEAR II

YEAR III

YEAR IV & TRANSITIONING

YEAR I

YEAR II

YEAR III

YEAR IV & TRANSITIONING

WHERE CAN I GO?

A PhD in Biology 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. Our PhD students are equipped with a strong foundation for careers in:

- Academia and teaching
- Agriculture
- Pharmacy and medicine
- Environmental law, patent law
- Government research centres and organizations
- Biotechnology industries
- Wildlife conservation and environmental consulting

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

WHAT WILL I LEARN?

A graduate degree in Biology 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 and 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 Biology 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. Our PhD students are equipped with a strong foundation for careers in:

- Academia and teaching
- Agriculture
- Pharmacy and medicine
- Environmental law, patent law
- Government research centres and organizations
- Biotechnology industries
- Wildlife conservation and environmental consulting

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