

# BIOPHYSICS

## About Biophysics and CRBS

Biophysics is the set of scientific disciplines where the theories and methods of physics are applied to biological systems, allowing the most rigorous possible understanding of biology. Biophysics has driven many of the most transformative scientific advances of the past century, and its importance in cutting-edge research will continue to grow with current and future technological development. McGill's PhD in Biophysics features research in laboratories of the *Centre de recherche en biologie structurale* (CRBS), a top-notch McGill research centre in biophysics and structural biology. The mission of CRBS is to exploit the power of structural biology and biophysics to make breakthroughs in understanding health and disease, and to train a new generation of structural biologists and biophysicists with outstanding expertise in cross-disciplinary approaches for biomedical research.

Please refer to the CRBS website for further details.

## Doctor of Philosophy (Ph.D.) in Biophysics

### Biophysics Admission Requirements and Application Procedures

Applicants are expected to hold of a degree in a subject related to biophysics, in biology (e.g. anatomy, biology, biochemistry, microbiology and immunology, molecular biology, pharmacology, physiology), engineering, physics, or chemistry fields. Applicants should hold both Master's and bachelor's degrees with a minimum cumulative GPA of 3.5/4.0 on the McGill scale, or a bachelor's degree with a GPA of 3.7/4.0 on the McGill scale and strong research experience. Applicants are admitted to the Program after interview by the admission committee and do not require acceptance by a thesis advisor at time of admission.

Non-Canadian applicants to graduate studies whose mother tongue is not English and whose undergraduate education was not in English are required to provide a proof of English proficiency : a Test of English as a Foreign Language (TOEFL) minimum score of 86 (internet-based test) with each component score not less than 20; or International English Language Testing System (IELTS) minimum overall band score of 6.5.

## Application Procedures

McGill's online application form for graduate program candidates is available at [mcgill.ca/gradapplicants/how-apply](http://mcgill.ca/gradapplicants/how-apply).

Refer to the Application Procedures site for detailed information on application procedures.

## Additional Requirements

As part of the application package, applicants are required to provide:

- A curriculum vitae
- A 1000-word personal statement describing their educational background, research experience and motivation for applying to the program
- Two letters of reference, submitted directly from referees who interacted with the candidate in a professional or educational capacity

- All official transcripts from post-secondary education
- A non-refundable application fee

## Application Dates and Deadlines

Application opening dates are set by Enrolment Services in consultation with Graduate and Postdoctoral Studies (GPS), while application deadlines are set by Biophysics and may be revised at any time. Applicants must verify all deadlines and documentation requirements well in advance on the appropriate McGill website; please consult the list at [mcgill.ca/gps/contact/graduate-program](http://mcgill.ca/gps/contact/graduate-program).

Information on application deadlines is available at [mcgill.ca/gradapplicants/how-apply/application-steps/application-deadlines](http://mcgill.ca/gradapplicants/how-apply/application-steps/application-deadlines).

Admission to graduate studies is competitive; accordingly, late and/or incomplete applications are considered only as time and space permit.

## Doctor of Philosophy (Ph.D.) in Biophysics

The Biophysics program expects students from various backgrounds, so has designed courses and training that provide a strong foundation in fundamental aspects of biophysics and offers a deep dive into the various methodologies used in biophysics. These courses will help provide students with a comprehensive understanding of biophysics, including the breadth of biophysics research. BPHY601, "Fundamentals of Biophysics", is a year-long foundational course designed to provide basics necessary topics of biophysics; BPHY602, "Current Topics in Biophysics" is a publications-based course to show the multidisciplinary aspects of biophysics and demonstrate how integration of disciplines can lead to important advances; and BPHY603 "Effective Scientific Communication" trains students in scientific communication, presentations and writing. Students will also complete one of a strong offering of complementary courses from ten McGill departments. Students will also have small group, hands-on training through workshops and bootcamps on state-of-the-art facilities for diverse biophysical approaches, led by expert faculty and fantastic support personnel.

To provide an opportunity to participate in a breadth of biophysics research, and best discover what matches their interests, first year Biophysics students will perform three, 3-month research rotations with Graduate Program in Biophysics supervisors (members of the McGill Centre de recherche en biologie structurale; CRBS), before joining a laboratory in the summer of that year to undertake thesis research.

## Contact

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Website: [crbsmcgill.ca/graduate-program-in-biophysics](http://crbsmcgill.ca/graduate-program-in-biophysics)