PhD in Physics
FACULTY OF ARTS AND SCIENCES | DEPARTMENT OF PHYSICS

Overview and specifics

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>3-200-1-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL</td>
<td>Graduate</td>
</tr>
<tr>
<td>TYPE</td>
<td>Philosophiae Doctor [Ph. D.]</td>
</tr>
<tr>
<td>CREDITS</td>
<td>90 credits</td>
</tr>
<tr>
<td>PROGRAM TYPE</td>
<td>Dissertation or thesis track</td>
</tr>
</tbody>
</table>

- Admission in fall, winter and summer
- With international exchange option
- Submit a complete application as early as possible because, after September 1 (for the winter session) and February 1 (for the summer and fall sessions), applications will not be considered if all spaces are filled.
- Day course
- Offered at the Montréal
- Offered at the MIL
- Full-time
- Part-time

Resource persons

PROGRAM INFORMATION

Secrétariat du Département de physique
physique@umontreal.ca

Joëlle Margot  514-343-6635  joelle.margot@umontreal.ca

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514 343-6667
Description

The Department of Physics will be moving to the new Science Complex in the fall of 2019. Discover your new surroundings in photos and video.

Research subjects are varied and include:

- Astronomy and astrophysics
- Biophysics
- Condensed matter and materials physics
- Particle physics
- Plasma physics
- Mathematical physics
- Medical physics

Objectives

The goal of the program is to train students so that they can independently carry out a cutting-edge research project in their field. Students are taught how to master a new subject, keep their knowledge up to date, and develop their own research projects. Students who complete their doctorate should be able to conduct research as part of a team and eventually carry out their own research projects.

Strengths

- The Bibliothèque de physique (physics library) and computer labs reserved for physics students for their assignments: experiment write-ups, digital physics labs, symbolic computation tools, and more.
- Lectures given by renowned researchers who inform students about the latest advances in the field.
- Professors who are internationally renowned for their publications and their prestigious awards and grants.

Regulations

Students are advised to submit a complete application as early as possible as applications will not be considered if the program’s capacity has been reached.

Studies in this program are governed by the educational regulations of the Faculty of Graduate and Postdoctoral Studies and the following provisions:

1. Admission requirements
   To be admitted as a regular student to the PhD (Physics) program, candidates must:
   - Meet the general admission requirements (section XX) of the “Règlement pédagogique de la Faculté des études supérieures et postdoctorales” (educational regulations of the Faculty of Graduate and Postdoctoral Studies).
   - Have an MSc (Physics) or equivalent degree.
   - Have obtained a grade-point average at the graduate level of at least 3.3 out of 4.3 or the equivalent.
   - Demonstrate good knowledge of French and English and sufficient knowledge of any other language deemed necessary for their research.

1.1 Additional documents to submit with your application
- Letter of intent or of interest
- Curriculum vitae
- Additional Information Form (in French only)
- Two letters of recommendation

Application deadlines
Before submitting an application, check the application periods for the chosen session.

**Fall**
- **Fall 2020:** From January 1st, 2019 to February 1st, 2020

**Winter**
- **Winter 2020:** From May 1st, 2018 to September 4, 2019
- **Winter 2021:** From May 1st, 2019 to September 1st, 2020

**Summer**
- **Summer 2020:** From September 1st, 2018 to February 1st, 2020

Programs of origin
Several Université de Montréal students in this program came from the following programs:

<table>
<thead>
<tr>
<th>PROGRAMS</th>
<th>TYPE</th>
<th>CREDITS</th>
<th>NUMBER</th>
<th>PERIOD</th>
<th>ENROLLMENT CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Master’s Degree</td>
<td>45 credits</td>
<td>2-200-1-0</td>
<td>Jour</td>
<td></td>
</tr>
</tbody>
</table>

Program structure (3-200-1-0)
The doctorate program consists of 90 credits. Students may take the Physics option and the Molecular Physiology and Biophysics option.

For candidates who have not taken a Biophysics option or the equivalent at the undergraduate level, 9 complementary course credits are required, unless these were taken at the graduate level.

Complementary courses
- BCM 1531 Introduction to Biochemistry, 3 credits
- BIO 1101 Molecular Biology, 3 credits
- BIO 1153 Cellular Biology, 3 credits
- CHM 2995 General Physical Chemistry 2, 3 credits
- PHY 2900 Biophysics, 3 credits

Legend: CR: Credit, SC: Schedule, D: Day, E: Evening

<table>
<thead>
<tr>
<th>SEGMENT 70 – PHYSICS OPTION</th>
<th>COURSE</th>
<th>TITLE</th>
<th>CR</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHY 7000</td>
<td>PhD Comprehensive Examination</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHY 7010</td>
<td>Thesis</td>
<td>81</td>
<td></td>
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</tbody>
</table>
Programs to explore
Applicants interested in this program also applied to the following programs:

<table>
<thead>
<tr>
<th>PROGRAMS</th>
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<th>NUMBER</th>
<th>PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optometry - Vision Sciences</td>
<td>Doctorate</td>
<td>90 credits</td>
<td>3-656-1-0</td>
<td>Jour</td>
</tr>
</tbody>
</table>

Research expertise at a glance
- Discover our professors' different areas of research expertise: http://en.phys.umontreal.ca/research/research-interests/
- Consult our list of research centres, groups, chairs and laboratories: http://en.phys.umontreal.ca/research/centres-groups-networks-laboratories/
Find out more: http://en.phys.umontreal.ca/home/

Professors
Consult the list of the department's faculty members and their specializations: http://en.phys.umontreal.ca/repertoire-departement/professeurs/

Directory of theses and dissertations
Visit Papyrus, Université de Montréal's institutional repository, to search for research projects by our faculty and researchers as well as theses and dissertations by our students: https://papyrus.bib.umontreal.ca/xmlui/?locale-attribute=en

Research news
Read the latest research news from UdeM: http://nouvelles.umontreal.ca/en/