**PhD in Computer Science**

**FACULTY OF ARTS AND SCIENCES | DÉPARTEMENT D’INFORMATIQUE ET DE RECHERCHE OPÉRATIONNELLE**

**Overview and specifics**

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>3-175-1-0</th>
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<tbody>
<tr>
<td>LEVEL</td>
<td>Graduate</td>
</tr>
<tr>
<td>TYPE</td>
<td>Philosophiae Doctor (Ph. D.)</td>
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<tr>
<td>CREDITS</td>
<td>90 credits</td>
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<tr>
<td>PROGRAM TYPE</td>
<td>Dissertation or thesis track</td>
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- Admission in fall and winter
- 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.

**Description**

Do you have a passion for research? Would you like to have a direct impact on state-of-the-art advancements in the field of computer science? Do you want to work with world-renowned experts in academia and industry on the important problems that will shape the future? Then the PhD in Computer Science is the ideal program for you!

**Objectives**

Most of this program is devoted to advancing knowledge in this field by conducting research and devising new solutions to important open problems.

The program culminates in a thesis that opens up new avenues of research, while solving an important set of problems in your chosen area of expertise.

Prior to the thesis-writing stage, PhD candidates’ general knowledge of computer science will be evaluated; at a later stage of their training, their knowledge of their chosen area of specialization will also be evaluated. The final evaluation for a PhD involves the defence of the candidate’s work.

**Strengths**

- The chance to work in a wide range of research laboratories and groups, conducting cutting-edge work in logistics, artificial intelligence, natural language processing, video games and quantum computing, just to name a few.
- Guaranteed financial assistance for all students.

**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 (Computer Science) 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 (Computer Science) or a degree that adequately prepares them for their chosen area of study or show proof of equivalent education.
   - Have obtained a grade-point average at the graduate level of at least 3.2 out of 4.3 or the equivalent.
   - Demonstrate sufficient knowledge of French or English and any other language deemed necessary for their research.

1.1 **Additional documents to submit with your application**
The Supervision Consent Form, including a section on financial arrangements.

Program structure (3-175-1-0)
The doctorate program consists of 90 to 92 credits, to which preparatory education may be added.
Legend: CR: Credit, SC: Schedule, D: Day, E: Evening

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<tr>
<th>SEGMENT 70</th>
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<td>Number of credits: 84 mandatory credits for research and a thesis, and 6 to 8 credits from optional courses.</td>
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<tr>
<th>Block 70A</th>
<th>Block 70B Research and thesis</th>
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<tr>
<td>Optional – minimum 6 credits, maximum 8 credits</td>
<td>Mandatory – 84 credits</td>
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Level 6000 IFT courses or seminars or any other courses or seminars the department deems essential to the student's education.

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<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>CRSC</th>
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<tr>
<td>IFT 7000</td>
<td>PhD Comprehensive Examination</td>
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<tr>
<td>IFT 7910</td>
<td>Thesis</td>
<td>84</td>
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Research expertise at a glance
- Discover our professors' different areas of research expertise: https://diro.umontreal.ca/english/research/research-interests/
- Consult our list of research centres, groups, chairs and laboratories: https://diro.umontreal.ca/english/research/groups-laboratories-and-research-centre/
FIND OUT MORE: https://diro.umontreal.ca/english/home/

Professors
Consult the list of the department's faculty members and their specializations.

Directory of theses and dissertations

Research news