COMBINED PROGRAM
MD AND PHD (CELLULAR MOLECULAR MEDICINE WITH SPECIALIZATION IN HUMAN AND MOLECULAR GENETICS OPTION)

Undergraduate Medical Education (MD Program)
The program leading to the Doctor of Medicine degree includes 147 weeks of instruction (72 weeks of which are devoted to clinical work) scheduled over four calendar years.

Preclerkship is devoted to the teaching and learning of biomedical sciences, whereas Clerkship is devoted to clinical work. During medical studies, students should demonstrate the intelligence, the integrity, and the personal and emotional characteristics deemed necessary for competent physicians. Their behaviour must be consistent with an acceptable code of professional ethics, such as stated in the Faculty’s Standards of Ethical and Professional Behaviour.

This program is offered in English and in French.

Program Contact Information
Undergraduate Medical Education (https://med.uottawa.ca/undergraduate/)
451 Smyth Road, Room 2046
Ottawa, ON K1H 8M5
Tel.: 613-562-5800 ext. 8551
Toll free: 1-877-868-8292 ext. 5215
Email: medaca@uottawa.ca

Doctorate in Philosophy Cellular and Molecular Medicine Specialization in Human and Molecular Genetics
The programs prepare candidates for a variety of careers in teaching and research both within and outside of academia. During training, the student will develop a critical approach to published work and to his own work. Graduates acquire an excellent knowledge of their chosen field and a general understanding of the areas related to their own particular research project. They must demonstrate research skills and credibility as professionals in their area of research.

The Department is a participating unit in the collaborative programs in Bioinformatics (at the master’s level), in Human and Molecular Genetics (at the master’s and doctoral levels), and in Pathology and Experimental Medicine (at the master’s and doctoral levels).

Program Requirements
Requirements for this program have been modified. Please consult the 2019-2020 calendars (http://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Undergraduate Medical Education (MD Program)
Compulsory courses at the 1000 level
ELE 1900 Clinical Placement - Non Mandatory Elective - First Year
MED 1107 Community Week
MED 1200 Introduction Unit to the Profession
MED 1201 Foundations Unit
MED 1202 Unit I
MED 1302 Physician Skills Development (Part 1)
Compulsory courses at the 2000 level
CLI 2101 Transition to Clerkship Part 1
ELE 2900 Clinical Placement - Non Mandatory Elective - Second Year
MED 2109 Mandatory Clinical Week
MED 2201 Unit II
MED 2202 Unit III
MED 2203 Unit IV
MED 2302 Physician Skills Development (Part 2)
Compulsory courses at the 3000 level
CLI 3301 Transition to Clerkship Part 2
CLI 3102 Surgery
CLI 3103 Internal Medicine
CLI 3104 Mandatory Selectives
CLI 3106 Obstetrics and Gynecology
CLI 3107 Pediatrics
CLI 3108 Psychiatry
CLI 3109 Family Medicine
CLI 3110 Acute Care Medicine

Program Contact Information
Graduate Studies Office, Faculty of Medicine (https://med.uottawa.ca/graduate-postdoctoral/)
451 Smyth Road, Room 2016
Ottawa, ON, K1N 6N5
Tel.: 613-562-5215
Toll free: 1-877-868-8292 ext. 5215
Email: grad.med@uottawa.ca

Doctorate in Philosophy Cellular and Molecular Medicine Specialization in Human and Molecular Genetics
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Twitter | Faculty of Medicine (https://twitter.com/uOttawaMed/)
YouTube | Faculty of Medicine (https://www.youtube.com/channel/UCP2nDlrJFEEtyfMi0mle2HA/)
Flickr | Faculty of Medicine (https://www.flickr.com/photos/uottawamed/)
### Compulsory courses at the 4000 level

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLI 3111</td>
<td>Objective Structured Clinical Examination (OSCE)</td>
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#### Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>CLI 4104</td>
<td>Transition to Residency</td>
</tr>
<tr>
<td>CLI 4105</td>
<td>Transition to Residency</td>
</tr>
<tr>
<td>CLI 4106</td>
<td>Selective in Ambulatory Medicine</td>
</tr>
<tr>
<td>MED 4101</td>
<td>Eportfolio on Core Competencies (Part 1)</td>
</tr>
<tr>
<td>MED 4102</td>
<td>Eportfolio on Core Competencies (Part 2)</td>
</tr>
<tr>
<td>MED 4103</td>
<td>Eportfolio on Core Competencies (Part 3)</td>
</tr>
<tr>
<td>MED 4104</td>
<td>Eportfolio on Core Competencies (Part 4)</td>
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</tbody>
</table>

### Doctorate in Philosophy Cellular and Molecular Medicine Specialization in Human and Molecular Genetics

The Department may require students to take additional courses, depending on their backgrounds.

Students must meet the following requirements for the doctorate with collaborative specialization:

#### Compulsory Courses (CMM):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>MED 8166</td>
<td>Professionalism and Professional Skills</td>
</tr>
<tr>
<td></td>
<td>3 optional course units in cellular and molecular medicine (CMM) at the graduate level</td>
</tr>
</tbody>
</table>

#### Compulsory Course (HMG):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td></td>
<td>3 course units from: 1</td>
</tr>
<tr>
<td></td>
<td>3 Units</td>
</tr>
<tr>
<td>HMG 8103</td>
<td>Advanced Topics in the Molecular Biology of Human Diseases I</td>
</tr>
<tr>
<td>HMG 8105</td>
<td>Advanced Topics in the Molecular Biology of Human Diseases II</td>
</tr>
<tr>
<td>HMG 8600</td>
<td>Special Topics in Human and Molecular Genetics</td>
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</table>

#### Seminar:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>CMM 8325S</td>
<td>Seminars II</td>
</tr>
</tbody>
</table>

#### Comprehensive Examination:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CMM 9998</td>
<td>Comprehensive Examination (PhD)</td>
</tr>
</tbody>
</table>

#### Thesis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>THD 9999</td>
<td>Doctoral Thesis</td>
</tr>
</tbody>
</table>

### Note(s)

1. Course selection is subject to the approval of the HMG program director.
2. The seminar course involves the presentation of a seminar and regular attendance at the approved departmental seminars.
3. Successful completion of a comprehensive examination in the form of a written research proposal followed by an oral examination.
4. Presentation and successful defence of a thesis in Human and Molecular Genetics based on original research carried out under the direct supervision of a member of the collaborative program.
5. Students are responsible for ensuring they have met all of the thesis requirements (http://www.uottawa.ca/graduate-studies/students/theses/).