PHARMACOLOGY AMP

All students must meet the Requirements for the Accelerated Master's Degree Programs

OVERVIEW

The objective of the Department of Pharmacology Master’s Programs is to provide a broad knowledge base of pharmacological concepts, preparing students for careers in pharmaceutical, biotechnology and related industries or to increase their competitiveness to pursue additional graduate or professional degrees. Research interests in the Department of Pharmacology are diverse, with special emphasis on cardiovascular and cerebrovascular pharmacology, physiology, neurovascular coupling, signal transduction, and medicinal chemistry/cancer chemotherapy.

This Accelerated Master’s Degree Entry Program (AMP) is designed to offer select UVM undergraduate science majors the opportunity to obtain both their B.A./B.S. and a M.S. in Pharmacology in a total of 5 years of study. Following acceptance into the program by the Graduate College, students enrolled in this program can take up to 9 credits of graduate-level courses that will count towards both a Bachelor’s Degree and the Master’s in pharmacology degree. Students would then be expected to complete all remaining M.S. requirements during a 5th year of study. Full-time graduate student status will start the summer after their undergraduate graduation. All other aspects and requirements of the AMP are identical to the traditional (non-AMP) Master’s program.

The Department of Pharmacology offers thesis-based and non-thesis Master of Science degrees in the AMP. The non-thesis M.S. degree involves taking 30 credits of required and elective Pharmacology or Pharmacology-approved courses and does not require a thesis or thesis defense. The thesis-based M.S. degree is a course and research-based program, with 21 credits in coursework and 9 credits of research. Students may choose thesis advisors from within the Department of Pharmacology, or with approval from the Program Director, may choose faculty from outside of the Department. This gives students a wide range of options for selecting thesis advisors conducting pharmacology research. Students in the thesis-based track will write and defend a thesis.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Degree of Master of Science

A course background in the sciences (biology, chemistry, physics, etc.) is recommended. Graduate Record Examination (GRE) scores are not required.

Admission to the program requires the following:

- A minimum cumulative grade point average of 3.00 is recommended.

Students MUST be admitted through the Graduate College before taking any courses that will be applied to the Master’s degree requirements.

MINIMUM DEGREE REQUIREMENTS

All students must meet the UVM Graduate College Requirements for the Master’s degree. A minimum of 30 credits and successful completion of a written comprehensive exam are required for completion of the Master’s degree in Pharmacology. At least 15 course credits must be graded, 6 of which must be at the 6000-level. Students enrolled in the thesis-base program must also write, present and successfully defend their research thesis. Courses should be selected from the following lists or from pharmacology-related courses offered by other departments at UVM as approved by the Program Director to complete the 30 credit requirement. Please contact the Program Director for a current list of courses approved for the Pharmacology M.S.

<table>
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<tr>
<th>Required courses:</th>
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<tr>
<td>PHRM 6010 Applied Systems Pharmacology 3</td>
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<tr>
<td>PHRM 5400 Molecules &amp; Medicine 3</td>
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<tr>
<td>PHRM 5900 Gr Adv Pharmacology Topics 3</td>
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<tr>
<td>PHRM 6080 Integrative Physiol. &amp; Pharm. 3</td>
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<td>PHRM 6810 Seminar 1</td>
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Required for thesis Master’s:

| PHRM 6391 Master’s Thesis Research 9 |

Additional courses may be selected from the following or by approval of the Program Director:

| PHRM 5720 Gr Toxicology |
| PHRM 6020 Pharmacological Techniques |
| PHRM 6050 Milestones in Pharmacology |
| PHRM 6730 Readings in Pharmacology |
| BIOC 6001 General Biochemistry I |
| BIOC 6002 General Biochemistry II |
| MPBP 6010 Human Physiology & Pharm I |

Comprehensive Examination

Students are required to pass a written comprehensive exam. The format is a take-home written exam. The questions are based on the required courses, which are common to the thesis and non-thesis tracks. Grading is on a 1-10 scale for each question. An average score
of 7 or better is required to pass. If a passing grade is not obtained, 1 re-take is permitted.

Requirements for Advancement to Candidacy for the Degree of Master of Science
Advancement to candidacy requires satisfactory completion of the comprehensive exam.