

PHARMACOLOGY AMP

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

OVERVIEW

The objective of the Department of Pharmacology Master's Program 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 Pathway (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 by the Graduate College, students enrolled in this pathway 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.
- Applicants must complete the Graduate College Application and provide at least 3 letters of recommendation.

- 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 coursework credits must be graded, 6 of which must be at the 6000-level. Students enrolled in the thesis-based 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 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.

Requirement Description		Credits
Required courses:		
PHRM 5400	Molecules & Medicine	3
PHRM 5900	Gr Adv Pharmacology Topics	3
PHRM 6010	Applied Systems Pharmacology	3
PHRM 6080	Integrative Physiol. & Pharm.	3
PHRM 6810	Seminar	1
Required for thesis Master's:		
PHRM 6391	Master's Thesis Research	1-18
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.