

MEDICAL SCIENCE M.S.

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

OVERVIEW

The goal of the Master of Science in Medical Science Program is to provide a rigorous curriculum in the basic biomedical sciences that prepares students with the background knowledge and skills required to gain acceptance into and succeed in healthcare-related professional degree programs such as medical, dental, or pharmacy programs. The program offers a cohesive set of core courses in biomedical disciplines that together provide foundational understanding of human structure and function. Courses provide graduate-level training in biochemistry, cell biology, anatomy, and physiology as well as pharmacology and evidence-based medicine.

The faculty below are UVM faculty in addition to those who have been formally appointed Graduate Faculty members:

- Akselrod, Dmitry; Associate Professor, Department of Radiology; MD, SUNY Upstate Medical University
- Geeslin, Matthew; Assistant Professor, Department of Radiology; MD, University of Minnesota
- Hielscher, Abigail; Associate Professor, Department of Neurological Sciences; PhD, University of Nebraska
- Jebbett, Nathan; Assistant Professor, Department of Neurological Science; PHD, University of Vermont
- McBride, Carole Anne; Assistant Professor, Department of Obstetrics Gynecology&Reprod; PHD, University of Vermont

Specific Requirements

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

Applicants are required to have a B.S. or B.A. from accredited college or university, 2 semesters of general biology, general physics, general chemistry, and organic chemistry. International Students are required to submit scores for TOEFL or IELTS.

Minimum Degree Requirements

UVM's Master of Medical Science degree is a 30-credit program that is designed to be completed within 1 year (12 months). Students complete Core Course Requirements, 1 anatomy, 1 biostatistics, 1 pharmacology, and additional electives to complete the 30-credit program.

Requirement Description		Credits
Core Courses:		
BIOC 6001	General Biochemistry I	3
BIOC 6002	General Biochemistry II	3
MPBP 6010	Human Physiology & Pharm I	4
PH 6030	Biostatistics I:App Rsch in PH	3
The following cell biology course:		

CLBI 6010	Cell Biology	3
or PHRM 6060	Medical Cell Biology	
The following pharmacology course:		
PHRM 6080	Integrative Physiol. & Pharm.	3
or PHRM 6010	Applied Systems Pharmacology	
1 from the following anatomy courses:		
ANNB 6000	Human Gross Anatomy	6
RAD 6890	Human Anatomy via Radiology	3
Choose at least 2 electives from the following or other health-related courses approved by the Director (core and elective credits must combine for an overall total of at least 30 credits):		
BIOC 6072	Cancer Biology	
MMG 5210	Gr Medical Microbiology	
MPBP 6100	Molecular Control of the Cell	
MPBP 6900	Medical Master's Capstone (only 1 Capstone course allowed)	
NSCI 6020	Neuroscience	
OBYG 5000	Understanding Human Pregnancy	
PATH 6280	Techniques in Microscopy	
PH 6010	Public Health & Health Policy	
PH 6020	Epidemiology I	
PH 6030	Biostatistics I:App Rsch in PH	
PH 6040	Environmental Public Health	
PH 6060	Social&Behavioral Public Hlth	
PH 6070	Epidemiology 2	
PH 6120	Food Systems & Public Hlth	
PH 6220	One Health: Zoonoses	
PHRM 5400	Molecules & Medicine	
PHRM 6050	Milestones in Pharmacology	
PHRM 6900	Medical Master's Capstone (only 1 Capstone course allowed)	

LCOM Medical Student Program Transfer to Medical Science M.S.: Larner College of Medicine (LCOM) medical students who wish to withdraw from the Vermont Integrated Curriculum may transfer up to 30 qualifying credits from their pre-clinical courses to the Graduate College Medical Science M.S. program. Applicants submit a program transfer request to the Dean of the Graduate College, with approval from the LCOM Dean of Students.

Comprehensive Examination

Students must complete a comprehensive exam, integrating their knowledge of core course material in a written paper, by their end of their final semester in the program.

Requirements for Advancement to Candidacy for the Degree of Master of Science

Successful completion of a comprehensive examination in Medical Science.