CELLULAR, MOLECULAR, AND MICROBIAL BIOLOGY PH.D. - MICROBIOLOGY AND IMMUNOLOGY

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (https://catalog.umt.edu/graduate/school-policies/).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Doctor of Philosophy - Cellular, Molecular, and Microbial Biology; Microbiology and Immunology Concentration

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20 semester credits of courses (includes any course other than Dissertation and Research).
- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591, and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

Course Requirements

Code	Title	Hours
Core Courses		
Complete all of the following courses:		
BCH 570	Intro to Research	2
or BIOM 570	Intro to Research	
BIOB 547	Experimental Molecular, Cellular, and Chemical Biology	4
BIOM 594	Molecular and Biomedical Sciences Seminar	4
Electives, Research, and Dissertation		
Complete 50 credits of elective courses.		50
Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include:		
BCH 582	Proteins and Enzymes	
BCH 584	Nucleic Acids	
BCH 590	Research	
or BIOM 590	Research	
BCH 600	Cell Organization & Mechanisms	
BCH 699	Dissertation	
or BIOM 699	Dissertation	
BIOM 502	Advanced Immunology	
BIOM 540	Microbial Pathogenesis	
Total Hours		**60**