

**Master of Science in Cell and Molecular Biology (MSCMB)  
PROGRAM STRUCTURE**

- A. Total credits required for graduation (minimum): 32 credit hours
- B. No more than 9 semester hours of transfer credits may be counted in the program of study. All credits must have been earned within the eight-year time limit for a degree program.
- C. Program course requirements: Total credits: 21 credit hours\*

BMS 521 Molecular Cell Biology	4 cr
BMS 525 Molecular Biology	4 cr
BMS 558 Recombinant DNA Technology	3 cr
BMS 593 Bioinformatics	2 cr
BMS 600 Introduction to Graduate Studies in the Biomedical Sciences	3 cr
BMS 630 Current Literature Topics**	2 cr
BMS 698 Research	3 cr

Additional elective courses may be waived and substituted by the MSCMB Program Director or the student's advisor if it is deemed that specific course requirements in the above list have been met by the student as an undergraduate or graduate student.

\*Pre-requisite courses in calculus, physics, organic chemistry, and demonstrated computer skills are admission requirements to the program.

\*\* Full time students are required to enroll in this course each semester.

- D. Elective credits: minimum 11 credit hours\*\*\* A sampling of electives currently offered in the Department of Biomedical Sciences (BMS) and other units at Missouri State University includes biotechnology, signal transduction, developmental genetics, immunology, virology, cell biology of cancer, neurobiology, developmental anatomy, histology, bacterial metabolism, and molecular mechanisms in animal development.

\*\*\*All elective courses must be approved by the MSCMB Program Director, Department Head, or the student's assigned advisor.

- E. Research Requirements for the thesis and seminar options: All students must complete a research requirement and are admitted to candidacy under a Thesis Option (BMS 699 required) or a Seminar Option as described in the Graduate College Catalog. Students on the seminar option are required to complete BMS 697 (Non-Thesis Project).