

# BIOCHEMISTRY AND MOLECULAR BIOLOGY, MS

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## Biochemistry and Molecular Biology Masters 1-Year Program

*A two-semester graduate program designed to enrich and improve credentials of graduates to apply for admission to medical, dental or other healthcare-related profession programs.*

### Program Overview

This is a two-semester non-thesis program leading to a Master of Biomedical Science in Biochemistry and Molecular Biology degree.

The program is primarily designed to enrich and improve academic credentials of graduates. Our distinctive program emphasizes student development in four areas (coursework, experiential learning, presentation skills, and personal growth), and allows students to broaden and strengthen their academic foundation for further intellectual development, such as gaining entrance into medical-, dental- or health profession-related schools.

The core curriculum emphasizes clinical applications of biochemistry and molecular knowledge. Required courses include Human Medical Cellular Biochemistry and Human Medical Metabolic Biochemistry which are equivalent to Tulane's first-year medical biochemistry course, Medical Biochemistry Grand Rounds Externship Seminar which provides students with a unique opportunity to experience Medicine Grand Rounds from the biochemical, molecular and clinical perspectives, and the Department Seminar series exposing students to novel research in the field of biochemistry.

All students benefit from several other biochemistry- or molecular biology-related courses. Program electives range from more medically-related courses such as Chromosomal Instability and Cancer, Molecular Basis of Pediatric Disease, and Signal Transduction and Hormone Action to more research-related courses such as Biochemistry Research, Graduate-level Biochemistry, and Biomedical Statistics and Data Analysis. Additionally, the program has reciprocal relationships with certain courses in the Graduate Program in Biomedical Sciences, the Department of Microbiology and Immunology, the Department of Physiology, and the Department of Pathology and Laboratory Medicine. Students may elect to take Tulane first-year medical course equivalents in Graduate Medical Microbiology and Medical Immunology, Medical Physiology, Cancer Biology & Pathology, or Molecular & Cellular Pathology.

All courses are taught within the Tulane School of Medicine by full time faculty.

## Requirements

For the one year Program, students must take 30 credit hours of course work during the fall and spring semesters to complete the requirements for the degree. Additionally, students have the option to take the NBME Shelf Exam in Biochemistry as a culminating experience. Although not thesis based, this degree does involve several written assignments and oral presentations as part of the required course work. No research is required. Therefore, this is considered a "non-thesis" degree.

**Program String and Field of Study:** MDMS\_GR, BCMB

**Catalog addenda note:** This program's name was changed slightly from Biochemistry, MS to Biochemistry and Molecular Biology, MS on 11/14/2025.

## Contact

For more information, contact the School of Medicine (<https://medicine.tulane.edu/biomedical-sciences-graduate-program/contact-us/>).