

MOUNT MARY UNIVERSITY

# BIOCHEMISTRY

## SCHOOL OF ARTS & SCIENCES

### Mount Mary University's Bachelor of Science degree in biochemistry prepares students for entry-level employment or graduate studies in the life sciences.

The program combines a broad background in biobiochemistry with a solid foundation in the liberal arts. Program graduates are well-prepared for entry into graduate biobiochemistry programs and professional schools (medical, dental, osteopathic medicine, optometry and veterinary science).

The biochemistry program emphasizes data analysis and problem solving, along with broad scientific literacy, basic biochemistry laboratory techniques and relevant computer applications. The program offers courses in the five main branches of biochemistry: inorganic, organic, analytical, biochemical and physical.

### One Major, Two Options

A biochemistry degree from Mount Mary University offers a broad choice of career paths. Two distinct course sequences help direct students toward their future career goals. Each sequence has recommended courses designed to meet a student's individual career aspirations.

#### GENERAL SEQUENCE

Prepares students for entry-level positions after graduation, graduate school or professional school.

#### EDUCATION SEQUENCE

To become a biochemistry teacher, students must complete requirements for both the biochemistry and education majors. Upon completion of the program, graduates will be eligible to teach biochemistry or broad-field science in grades 6 to 12. A student teaching experience is required.

### Entrance Exams for Post-Graduate Study

Through rigorous coursework, hands-on learning opportunities and test preparation, Mount Mary biochemistry graduates are well prepared for the following pre-professional exams:

- **MEDICAL SCHOOL (FOR BOTH MD AND DO PROGRAMS):** Medical College Admission Test (MCAT)
- **DENTAL SCHOOL:** Dental Admission Test (DAT)
- **VETERINARY SCHOOL:** Graduate Record Exam (GRE) or another exam designated by the school of choice

### CAREER OPPORTUNITIES

Chemistry graduates can pursue careers as chemists, scientists, researchers and more at pharmaceutical, biotechnology, materials development and manufacturing companies. Graduates in the health sciences sequence will be prepared to attend medical, dental, veterinary or other professional schools. According to the U.S. Bureau of Labor Statistics, job growth is expected in the chemistry industries. Graduates with a master's degree or Ph.D. will enjoy the best opportunities.

### SCHOLARSHIP ASSISTANCE

Did you know? 100% of incoming, full-time undergraduate students receive an academic scholarship or reduced tuition. In addition, chemistry majors are eligible for the Anthony S. Woo Chemistry Achievement Award. This scholarship honors the father of two Mount Mary chemistry alumnae. The scholarship is awarded to a student who demonstrates outstanding achievement in the field of chemistry. Details about this scholarship are available by contacting the sciences department chair.

### LEARN MORE ONLINE

Learn more about the School of Natural and Health Sciences at Mount Mary University at: [mtmary.edu/academics](http://mtmary.edu/academics)

MAJOR	CORE	ELECTIVES
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**FRESHMAN YEAR**

FALL Courses		SPRING Courses	
First Year Seminar	3	Professional Presentations	3
ENG 110	3	ENG 120 College Research Writing	4
Algebra I	4	CHE 114 General Chemistry and Lab	4
CHE 113 General Chemistry I and Lab	4	Algebra II	2
BIO 100 Intro to Biochemistry	4		
<b>TOTAL</b>	15 credits	<b>TOTAL</b>	14 credits

**SOPHOMORE YEAR**

FALL Courses		SPRING Courses	
BIO 100 Intro to Cell and Molecular Biology	4	Core	3
Core	3	PHY 202 General Physics II	4
CHE 222 Instrumental Quantitative Analysis	4	Microbiology	4
PHY 201 General Physics	4		
<b>TOTAL</b>	15 credits	<b>TOTAL</b>	11 credits

**JUNIOR YEAR**

FALL Courses		SPRING Courses	
Core	3	Core	3
Core	3	Core	3
CHE 333 Organic Chemistry I	4	CHE 334 Organic Chemistry	4
Genetics	4	Statistics	4
Chemistry Seminar	1	Chemistry Seminar II	1
<b>TOTAL</b>	15 credits	<b>TOTAL</b>	14 credits

**SENIOR YEAR**

FALL Courses		SPRING Courses	
Core	3	Elective	3
Core	3	Core	1
Biochemistry I	4	Biochemistry II	4
Bio 400 Level	3	Core	3
Core	3	Elective	3
<b>TOTAL</b>	17 credits	<b>TOTAL</b>	16 credits

UPDATED OCTOBER 2024

This example four-year plan is intended to outline the number and types of courses a student might take in order to fulfill the degree, major, core and elective requirements to graduate. Students meet with their academic advisor each semester to review progress toward fulfilling their degree requirements.



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