

# **BIOMEDICAL SCIENCES**

The Biomedical Sciences major provides you with key science courses to prepare you for a career in health care with the flexibility to design a curriculum that fits your particular interests. Concentrations include: pre-veterinary, pre-medical, pre-podiatry, pre-dentistry, pre-optometry, pre-pharmacy, pre-chiropractic, pre-physician assistant, pre-physical therapy, and pre-occupational therapy. All concentrations are designed to meet requirements for professional schools in the tri-state area.



#### **SCAN TO FIND:**

- Featured courses.
- Program requirements and more!

### **BEYOND THE CLASSROOM**

### HANDS-ON EXPERIENCE

Biomedical Sciences majors may engage in individualized research on campus with a faculty mentor, have opportunities for shadowing and observation, and engage in co-op positions or internship experiences in off-campus research programs. These opportunities strengthen applications to professional schools and provide valuable experiences that serve to enhance career options in the future.



### **FURTHER YOUR EDUCATION**

Students interested in preparing for a career in health care at the graduate level are encouraged to contact the Health Professions Advising Committee (hpac@msj.edu). On-site pre-health advisors assist students in career path exploration, and developing the

skills necessary to be successful in their application process, including resume workshops, Graduate Record Examination (GRE) preparation, and more.

## AFFORDABLE EDUCATION

PRESIDENT'S SCHOLARSHIP
FULL TUITION & FEES

DEAN'S SCHOLARSHIP up to \$24,000/year

MERIT SCHOLARSHIPS up to \$22,000/year

President's and Dean's scholarships are competitively awarded to high school seniors (class of 2023). To be eligible for consideration, you must apply by December 1, 2022. Merit scholarships are awarded based on high scho

### **CAREERS IN BIOMEDICAL SCIENCES**

DENTIST

**MEDICAL DOCTOR** 

**PHARMACIST** 

PHYSICIAN ASSISTANT PHYSICAL THERAPIST

**VETERINARIAN** 

### **ALUMNI SUCCESS**

**-100%** 

### CAREER OUTCOMES RATE

100% of 2021 School of Behavioral & Natural Sciences graduates were successfully employed, enrolled in graduate studies, or volunteering within six months of graduation. The knowledge rate for this survey was 85%.



# MOUNT ST. JOSEPH UNIVERSITY®

SCHOOL OF BEHAVIORAL & NATURAL SCIENCES

Office of Admission 513-244-4531 | 800-654-9314 www.msj.edu | admission@msj.edu

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Chair, Department of Biology Assistant Professor of Biology maria.brown@msi.edu

### BIOMEDICAL SCIENCES MAJOR - BACHELOR OF SCIENCE (TYPICAL CURRICULUM)

### **Foundation Courses**

BIO 111/BIO 111A Principles of Biology I w/ Lab BIO 112/BIO 112A Principles of Biology II w/ Lab BIO 204 Biology Seminar

CED 220 Found, of Professionalism

CHE 111/CHE 111A Gen. Chemistry I w/ Lab CHE 112/CHE 112A Gen. Chemistry II w/ Lab

PSY 103 Intro to Psychology

## Pre-Chiropractic, Pre-Medical, Pre-Podiatry Concentration

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab MTH 174 Statistics I

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab + Biology Electives - 28 hours

### Pre-Dental Concentration

BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab

**BIO 305 Microbiology** 

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab + Biology Electives - 16 hours

### Pre-Occupational Therapy Concentration

**BIO 130 Medical Terminology** 

BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab MTH 174 Statistics

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab

PSY 204 Lifespan Development

PSY 340 Abnormal Psychology

+ Biology Electives - 18 hours

### Pre-Physical Therapy Concentration

BIO 130 Medical Terminology

BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab MTH 174 Statistics

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab PSY 204 Lifespan Development

+ Biology Electives - 18 hours

### **Pre-Optometry Concentration**

BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab BIO 305 Microbiology

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab MTH Statistics

MTH 193 Calculus I

PHY 201/PHY 201A General Physics I w/Lab PHY 202/PHY 202A General Physics II w/Lab + Biology Electives - 16 hours

### **Pre-Pharmacy Concentration**

BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab BIO 305 Microbiology

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab ECO 201 Economic Issues

MTH Statistics

MTH 193 Calculus I

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab + Biology Electives - 16 hours

### Pre-Physician Assistant Concentration

BIO 130 Medical Terminology BIO 197/BIO 197A Human Anat. & Phys. I w/ Lab BIO 198/BIO 198A Human Anat. & Phys. II w/Lab

**BIO 305 Microbiology** 

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab MTH 174 Statistics

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab PSY 204 Lifespan Development

+ Biology Electives - 18 hours

### Pre-Veterinarian Concentration

CHE 211/CHE 211A Organic Chemistry I w/ Lab CHE 212/CHE 212A Organic Chemistry II w/ Lab CHE 325/ CHE 325A Biochemistry I w/ Lab CHE 326/CHE 326A Biochemistry II w/Lab MTH 174 Statistics I

PHY 201/PHY 201A General Physics I w/ Lab PHY 202/PHY 202A General Physics II w/Lab +Biology Electives - 28 hours

#### **NOTES**

Prerequisites:

Chemistry- College preparatory high school chemistry or the successful completion of a placement test.

Math- Three years of college preparatory high school mathematics including functions.

Ethics Required: Recommended Course:

ETH:PHI 250 Health Care Ethics (3) CE

120 credits hours minimum needed to graduate.

\*\*Curriculum Guide does not replace advisement by a faculty member within the Biomedical Sciences program and Health Professions Advisor Committee (HPAC).\*\*

# ADDITIONAL UNIVERSITY CORE REQUIREMENTS for BIOMED majors

CORE 115

Common Ground Code COR Justice & the

Common Good Code JCG

Ethics Code CE Experiential Learning Code EXP

Core Capstone Code CCP
Speech (COM 100) Code C
Writing (ENG 101) Code C
Literature (ENG) Code CL

Art or Music Code CAM
History Code CH
Religious Studies Code CR

Philosophy Mathematics<sup>#</sup>

Code CP Code CMA

SOC 103 Our Soc

Our Social World Code CS "Math needed for core requirement if not included in chosen concentration

Approved\_05.28.20



# MOUNT ST. JOSEPH UNIVERSITY®

5701 Delhi Road Cincinnati, Ohio 45233-1670 513-244-4200 www.msj.edu Mount St. Joseph University ("the University") is committed to providing an educational and employment environment free from discrimination or harassment on the basis of race, color, national origin, religion, sex, age, disability, sexual orientation, gender identity, or other minority or protected status. This commitment extends to the University's administration of its admission, financial aid, employment, and cacdemic policies, as well as the University at Athletic programs and other University-administered programs, services, and activities.

The University has designated the Title IX Coordinator, (513) 244-4467, as the individual responsible for responding to inquiries, addressing complaints, and coordinating compliance with its responsibilities under Title IX of the Education Amendments of 1972 and other related federal and state civil rights laws. The University has designated the Director of Human Resources/Equal Opportunity Officer, (513) 244-4979, as the individual responsible for responding to inquiries, issues, or complaints relating to discriminatory, harassing, or retailatory conduct related to race, color, national origin, religion, age, disability, or any other legally protected status. The University has designated the Associate Provost for Academic Affairs, (513) 244-4614, as the individual responsible for responding for addressing formal complaints regarding compliance with its responsibilities under Section 504 of the Rehabilitation Act of 1973. 09-WO-001842/21/750