

Biomedical Sciences (MS)

This program is offered by the College of Arts & Sciences and is only available at the St. Louis home campus.

Program Description

The graduate program offers a master of science in biomedical sciences degree through which students can pursue multiple career opportunities (medical, dental, veterinary, pharmacology, etc). The program, built on graduate core requirements, is designed with consideration of the individual career goals of the student in health science and research programs.

Education at the graduate level is an expansion of the knowledge attained from undergraduate studies. Graduate education at Webster University encourages the development of theoretical knowledge and critical thinking skills. The sciences are dynamic and require a dedication to continued educational endeavors to stay abreast of current theory and changes presented through research.

The curriculum spans one year of continuous, full-time enrollment starting every Summer term with an annual application deadline of April 15th. Classes are held during the day.

Quality Outcomes

Upon completion of the program, students should be able to:

- Demonstrate a deep and integrated understanding of the biological sciences and their implication to the advancement of health and biomedical science.
- Employ critical analysis and reasoning skills and the application of these skills to the design and execution of scientific inquiry relevant to specific biomedical disciplines.
- Generate and effectively communicate scientific knowledge relevant to specific biomedical disciplines (medical, dental, pharmaceutical, etc).
- Develop a commitment to life-long learning and career pursuits within health and biomedical science disciplines.
- Foster a commitment to health equity and ethics.

Program Curriculum

Required Courses (30 Credit Hours)

- CHEM 7500 Biochemistry (3 hours)
- BIOL 7200 Advanced Anatomy and Physiology I (4 hours)
- BIOL 8000 Advanced Anatomy and Physiology II (4 hours)
- BIOL 8100 Advanced Anatomy and Physiology III (4 hours)
- BIOL 7500 Immunology (3 hours)
- BIOL 7600 Cell Biology (3 hours)
- BIOL 7800 Microbiology (3 hours)
- BIOL 8400 Advanced Pathophysiology (3 hours)
- DNAP 7900 Pharmacology I (3 hours)

In addition, the student chooses at least 6 credits of elective courses from the following list:

- DNAP 8700 Pharmacogenomics (2 hours)
- DNAP 6400 Population Health and Epidemiology (2 hours)
- DNAP 7000 Advanced Health Assessment (4 hours)
- DNAP 8220 Health Care Informatics (2 hours)
- DNAP 8420 Organizational and Systems Leadership in Health Care (3 hours)
- DNAP 8240 Health Care Policy Analysis and Advocacy (3 hours)
- DNAP 8430 Health Administration Law and Ethics (3 hours)
- DNAP 8230 Politics and Economics of Health Care (3 hours)

- SCML 5850 Regulatory and Qualitative Affairs for Science Management and Leadership (3 hours)

General Requirements

Academic Performance

Students must earn a minimum cumulative GPA of 3.0 during the course of study and are permitted only one course grade of C.

General Requirements

Due to the 12 month, continuous cohort enrollment completion of the courses will occur in the sequence prescribed by the program for the cohort group in which enrolled; deviations from this sequence, or enrollment without admission to the program require special permission from the program director.

Students in the program are subject to the policies and procedures for graduate studies for Webster University.

Continuous Enrollment

Graduate students enrolled in the MS in biomedical sciences program must maintain continuous enrollment, or request special permission from the program director.

Admission

Students who are interested in applying to this degree program should see the Admission section of this catalog for general requirements.

Admission Requirements

Requirements for admission to the MS in biomedical sciences program include:

- Bachelor's degree and minimum 3.0 GPA on a 4.0 scale.
- Completion of at least 16 credit hours of courses in biological sciences, including microbiology, anatomy and physiology, organic chemistry, physics and statistics.
- Statement of Purpose.

Application Process

Submit all of the following documents to the Office of Admission **by April 15th** for enrollment in the subsequent Summer term; address is below.

- A completed MS in biomedical sciences program application, submitted online.
- A non-refundable application fee.
- Official transcripts from **all** universities, colleges and professional schools.
- A one-page Statement of Purpose explaining why you have chosen to pursue biomedical sciences, including any relevant information you would like the Admissions Committee to consider regarding your career goals.
- **Prerequisite Review Worksheet.**

Send all admissions materials to:

Office of Admission
Webster University
470 E. Lockwood Ave.
St. Louis, MO 63119