

BIOMEDICAL SCIENCE CERTIFICATE

Department of Biology, College of Arts and Sciences

Vision Statement

The goal of the proposed certificate is to provide a post-baccalaureate experience that will prepare students for future clinical training, particularly schooling for medicine, dentistry, pharmacy, physician assistant, or veterinarian. This certificate is distinct from the MS in biology, which aims to provide a broad experience in biological research. Certificate students receive integrated career and academic advising through the UNO Health Careers Resource Center (HCRC).

Program Contact Information

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Program Website (<https://www.unomaha.edu/college-of-arts-and-sciences/biology/>)

Admissions

General Application Requirements and Admission Criteria (<http://catalog.unomaha.edu/graduate/admission/>)

Program-Specific Requirements

Application Deadlines (Spring 2024, Summer 2024, and Fall 2024)

- Fall: February 15
- Spring: October 15

Other Requirements

- Applicants are required to have completed a bachelor's degree and present a GPA of 3.0 or above (on a 4.0 scale).
- Applicants must complete the following prerequisite courses: applicants who have not completed all courses may apply for admission and will be expected to complete remaining prerequisites during their first semester.
- **English Language Proficiency:** Applicants are required to have a command of oral and written English. Those who do not hold a baccalaureate or other advanced degree from the United States, **OR** a baccalaureate or other advanced degree from a predetermined country on the waiver list, must meet the minimum language proficiency score requirement in order to be considered for admission.
 - Internet-based TOEFL: 95, IELTS: 7, PTE: 64, Duolingo: 125
- **Letters of Recommendation:** Two letters of recommendation from college or university faculty members are required

Degree Requirements

Code	Title	Credits
Prerequisite Courses		
BIOL 1060	INTRODUCTION TO MEDICAL CAREERS & ETHICS	2
BIOL 2140	GENETICS	4
BIOL 2740	HUMAN ANATOMY AND PHYSIOLOGY I	4
BIOL 2840	HUMAN ANATOMY AND PHYSIOLOGY II	4
BIOL 3020	MOLECULAR BIOLOGY OF THE CELL	3

Two courses in neuroscience, psychology or sociology	6
Calculus or statistics course	3
English composition course	3
Physics course	3
Microbiology or immunology course	3
Total Credits	35

Code	Title	Credits
Required certificate courses		
BIOL 8060	ADVANCED TOPICS IN BIOLOGY	3
or CHEM 8990	RESEARCH IN CHEMISTRY	
or BIOL 8020	INDEPENDENT RESEARCH IN BIOLOGY	
or BIOL 8250	STATISTICAL ANALYSIS AND DESIGN FOR BIOLOGICAL RESEARCH	
BIOL 8760	CLINICAL REASONING	3
BIOL 8770	CLINICAL READINGS	3
CHEM 8666	BIOCHEMISTRY II	4
& CHEM 8664	and BIOCHEMISTRY II LABORATORY ¹	
Elective course ²		3
BIOL 8136	MOLECULAR GENETICS	
BIOL 8146	CELLULAR BIOLOGY	
BIOL 8156	CANCER BIOLOGY	
BIOL 8456	VIROLOGY	
& BIOL 8454	and VIROLOGY LABORATORY	
BIOL 8736	VERTEBRATE ENDOCRINOLOGY	
BIOL 8746	ANIMAL PHYSIOLOGY	
BIOL 8856	DEVELOPMENTAL BIOLOGY	
BIOL 8876	MOLECULAR AND CELLULAR NEUROBIOLOGY	
BIOL 8966	ADVANCED GENETICS	
CHEM 8215	INTRODUCTION TO MOLECULAR MODELING	
Total Credits		16

¹ If a student has completed UNO CHEM 4660 within three years; CHEM 8666 and CHEM 8664 will be waived and four additional credit hours will be fulfilled with elective hours.

² Courses taken for undergraduate credit cannot be retaken for graduate credit.