



## **One-Year M.S. in Biological Sciences – *Biomedical Concentration***

The One-Year Master of Science Degree Program gives students the opportunity to obtain an M.S. degree in Biological Sciences with a concentration in Biomedical Science. The program requires coursework, an internship in research or the health professions, and a capstone scholarly research paper and oral presentation. The degree has been designed to give students the option of completing the degree in one academic year. Students may also choose to reduce the course load taken per semester and finish in 3-4 semesters. The curriculum focuses on investigating the biomedical research that underlies advances in medicine.

Application to the program requires a bachelor's degree in science or related field and a GPA of 3.0. Interested students can apply through the UNO Graduate Program website (<http://new.uno.edu/admissions/apply>). Application materials include the online application, a statement of purpose, and one letter of recommendation from an academic source. (*GRE scores are not required.*)

For more information contact Dr. Jack Horne ([jhhorne@uno.edu](mailto:jhhorne@uno.edu))

### CURRICULUM

#### **Required Courses (18 credits)**

- Graduate Seminar (BIOS 6091) (1 cr)
- Internship (BIOS 6002) (2 cr)
- Capstone Course (BIOS 6003) (3 cr)
- Biological Sciences Core Courses<sup>1</sup> (12cr)
  - Biochemistry I (BIOS 5103)
  - Biochemistry II (BIOS 5113)
  - Molecular Biology (BIOS 5153)
  - Advanced Cell Biology (BIOS 6113)

#### **Electives (12 credits)**

*At least 6 credits at the 6000 level*

### SAMPLE SCHEDULE

#### ***Fall (15 credits)***

- Advanced Cell Biology (BIOS 6113)
- Biochemistry I (BIOS 5103)
- Internship (BIOS 6002)
- Graduate Seminar (BIOS 6091)
- Elective (6000 level, 3 cr)
- Elective (3 cr)

#### ***Spring (15 credits)***

- Biochemistry II (BIOS 5113)
- Molecular Biology (BIOS 5153)
- Capstone Course (BIOS 6003)
- Elective (6000 level, 3 cr)
- Elective (3 cr)

<sup>1</sup>Note: If a student has earned credit as an undergraduate for one or more of the core courses (equivalent to BIOS 4103 Biochem I, BIOS 4113 Biochem II, and BIOS 4153 Molecular Biology),

then the number of elective hours will increase accordingly because students cannot earn credit for the same class twice. These electives must be at the 5000 level or above.

### ELECTIVES

Electives may be chosen from any discipline relevant to health sciences (Biology, Chemistry, Business, Psychology, etc). At least 18 of the 30 credits for the degree must be in the Biological Sciences. Of the 12 credits of electives required for the degree, at least 6 credits (2 courses) must be at the 6000 level.

#### ***Recommended Electives***

BIOS 5173 Molecular Biotechnology	BIOS 5413 Developmental Biology
BIOS 5490 Human Genomics	BIOS 6713 Medical Microbiology

BIOS 6013 or 6023 or 6073 or 6093 Topical Course in Appropriate Discipline

#### ***Sample Other Electives\****

BIOS 5590 Emerging Infectious Diseases	CHEM 6710 Medicinal Chemistry
PSYC 6311 Advanced Statistics I	PSYC 6312 Advanced Statistics II
PHIL 5200 Health Promotion Ethics	BA 6010 Health Care Mngmt
CSCI 5567 Bioinformatics	BA 6015 Business of Health Care
EPID 6210 Principles of Epidemiology	PSYC 5530 Psychopathology
PSYC 5100 Lifespan Developmental Psych.	PSYC 5320 Physiological Psychology
BA 6012 Culture and Behavior in Health Care Settings	
BA 6097 or HPSM 6258 Health Law and Ethics	

*\*Electives outside of the sciences must be pre-approved by the program director and some may have pre-requisites and require permission from the departments offering the courses.*