

# BIOLOGY, MS

## Vision Statement

The goal of the Department of Biology is to provide students with individualized, broad training in biology leading to a Master of Science (MS) degree. Original research is an integral part of both the thesis and non-thesis degree options. Faculty areas of expertise include ecology, physiology, genetics, molecular biology, taxonomy, behavior, and developmental biology of a wide variety of organisms. The MS degree prepares students for employment in industry, private or government agencies, and academics, as well as further education in professional programs, such as the PhD or MD.

## Program Contact Information

Roxi Kellar, PhD, Graduate Program Chair (GPC)  
402.554.2840  
rkellar@unomaha.edu

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

## Other Program Related Information

The Department of Biology annually awards graduate assistantships. New applicants should indicate their interest in applying for an assistantship as part of the admission application and should include your employment history along with names and contact information of three references in your resume or CV. The assistantships require 20 hours per week of teaching and/or other assignments.

## Admissions

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

## Program-Specific Requirements

### Application Deadlines (Spring 2025, Summer 2025, and Fall 2025)

Applications for this program are accepted on a rolling basis. All materials must be submitted prior to the beginning of the semester in which the applicant has elected to begin coursework.

To receive full consideration for funding, applications for fall or summer must be received by January 15. Spring applicants must submit applications by September 15 for funding consideration. Applicants submitting applications after these priority deadlines will be considered for graduate teaching assistantships if funding is available and may apply for support in subsequent semesters.

### Other Requirements

- The applicant's GPA in undergraduate biology courses will be determined and must be 3.0 or above (on a 4.0 scale).
- Applicants should have a strong background in biology and related disciplines with a minimum of 24 credit hours in biology or related life sciences, including courses in ecology and molecular or cell biology, as well as college-level course work in chemistry and math or statistics. Applicants lacking courses in one or more of these areas may be admitted provisionally and required to complete additional courses during their graduate program as a condition of admission.
- 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
- Statement of Purpose:** The Department of Biology strongly encourages applicants to contact a professor whose research interests overlap with their own goals for graduate research. Due to the individualized nature of the biology graduate program, otherwise qualified applicants may not be admitted if appropriate faculty are not available to serve as advisors. Please indicate in your statement of purpose which faculty member has been contacted or plan to contact.
- Resume or curriculum vitae (CV):** including an outline of educational background, employment history, research experience, and a list of references.
- Letters of Recommendation:** Three academic letters of recommendation are required.
- Applicants not meeting the GPA criteria may provide written evidence of experience or potential to perform outstanding graduate work and petition the department for provisional admission as long as their biology GPA is above the 2.7 minimum set by the Graduate College. Students seeking provisional admission should contact two or more biology faculty to discuss admission. Provisional admission will not be removed until the student has earned at least the grade of "B" (3.0 on a 4.0 scale) in each course involved in the first 12 hours of graduate study. Questions about requirements for admission should be directed to the Department of Biology.

## Degree Requirements

### Thesis Option

At least 50% of the 30 graduate credit hours must be graduate only courses (8xx0). The 30 credit hours of graduate course work must include:

Code	Title	Credits
<b>Required Course</b>		
BIOL 8010	SEMINAR IN BIOLOGY	1
BIOL 8150	PROFESSIONAL DEVELOPMENT IN BIOLOGY	2
BIOL 8250	STATISTICAL ANALYSIS AND DESIGN FOR BIOLOGICAL RESEARCH	4
<b>Electives</b>		
To be determined by the student, and approved by his/her graduate advisory committee; graduate courses in other departments may be included.		17
<b>Exit Requirement</b>		
BIOL 8990	THESIS	6
<b>Total Credits</b>		<b>30</b>

### Non-Thesis Option

At least 50% of the 36 graduate credit hours must be graduate only courses (8xx0). The 36 credit hours of graduate course work must include:

Code	Title	Credits
<b>Required Courses</b>		
BIOL 8010	SEMINAR IN BIOLOGY	1
BIOL 8020	INDEPENDENT RESEARCH IN BIOLOGY (minimum of 2 credit hours)	2
BIOL 8150	PROFESSIONAL DEVELOPMENT IN BIOLOGY	2
BIOL 8250	STATISTICAL ANALYSIS AND DESIGN FOR BIOLOGICAL RESEARCH	4
<b>Electives</b>		

To be determined by the student, and approved by his/her graduate advisory committee; graduate courses in other departments may be included. 27

---

**Total Credits** 36

Any substitutions to the required courses in the thesis or non-thesis options must be approved by the graduate program committee.

### **Exit Requirements**

All degree students must form a supervisory committee of faculty, chaired by a major advisor from the Department of Biology. In consultation with the supervisory committee, students will develop a plan of study listing courses required for graduation. This will include any deficiencies required as a condition of admission and a minimum of 30 graduate credits for the thesis option and a minimum of 36 credits for the non-thesis option. Graduate students are expected to attend the Graduate Seminar (BIOL 8010) even when not registered for it.

### **Thesis Option (6 hours):**

Thesis candidates must complete 6 credit hours of BIOL 8990, Thesis. All candidates should carefully review the Graduate College requirements for forming a Supervisory Committee, Thesis/Thesis Equivalent Proposal Approval forms and final approval and submission of a thesis.

### **Non-Thesis Option:**

Comprehensive Examination administered by the supervisory committee.