

MASTER OF SCIENCE IN BIOLOGY

All the students in the program have to complete:

- 1) Comprehensive examination
- 2) Option 1: Thesis or Option 2: Library or laboratory research project

A Master of Science in Biology student must complete 32-34 credit hours of approved graduate work. This will include 26-30 credit hours of coursework and two credit hours of BIOL 595 Colloquium. Two options are available to complete the M.S. degree requirements: a thesis option and a non-thesis option.

Thesis Option

The thesis option is designed for individuals planning careers as experimental biologists, including those who may wish to pursue a Ph.D degree in the future. This option is available on a competitive basis. Students choosing the thesis option must complete six credit hours of thesis research (BIOL 591). This option requires the students to write a thesis based on their laboratory research.

Non-Thesis Option

The non-thesis option is intended to meet the needs of teachers, science administrators, policy makers in the life sciences, patent attorneys, and others.

Students who elect the non-thesis option must complete a research project in one of the following courses:

Capstone		(3)
BIOL 581	Capstone	3
Laboratory Research Project		(6)
BIOL 522 & BIOL 523	Research Techniques in the Biological Sciences I and Research Techniques in Biological Sciences II	6

Curriculum

Code	Title	Credit Hours
Required Courses		(16)
BIOL 501	Graduate Laboratory Techniques	2
BIOL 504	Biochemistry	3
BIOL 515	Molecular Biology	3
BIOL 533	Advanced Graduate Laboratory Techniques	3
BIOL 544	Molecular Biology of Cells	3
BIOL 595	Biology Colloquium	1
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Research Course Requirements		(6)
Select one of the following options:		6
Option 1		
BIOL 581	Capstone	3
Select one additional elective		3
Option 2		
BIOL 522 & BIOL 523	Research Techniques in the Biological Sciences I and Research Techniques in Biological Sciences II	6
Option 3		
BIOL 591	Research and Thesis M.S.	6
Elective Courses		(10-12)
Select 10-12 credit hours		10-12
Any 500-level biology course		3
BIOL 410	Medical Microbiology	3
BIOL 426	Concepts of Cancer Biology	3
BIOL 430	Human Physiology	3

2 Master of Science in Biology

BIOL 440	Neurobiology	3
BIOL 597	Special Problems ¹	1-3
Total Credit Hours		32-34

¹ Student may be approved for special problems as appropriate.