

**MS.BIOLOGY.THESIS
ACADEMIC LEARNING PLAN**



BIOLOGY – Master’s Program/Thesis Track

Mission Statement

In keeping with the University mission, the Department of Biology is dedicated to creation, transmission, application and preservation of knowledge. Within this framework, the primary mission of the Department of Biology is to develop, support and conduct high quality educational and research programs in the life sciences.

Student Learning Outcomes

UWF Biology MS graduates should be able to do the following:

A. Content

- Identify and use advanced concepts, principles, and theories that form the foundation of research in the biological sciences
- Employed advanced biological techniques central to analysis of biological materials and able to defend the use of these techniques based on the current scientific literature
- Describe discipline-related career paths for which recipients of the MS in Biology are qualified

B. Critical Thinking

- Employ and defend the scientific method in solving defined problems in the biological sciences
- Employ statistical methods appropriate to analysis of data generated in the thesis

C. Communication

- Employ biological terminology accurately in the thesis and oral defense
- Use language in written form effectively and professionally in developing the thesis
- Communicate biological information in oral form during the thesis defense

D. Integrity/Values

- Apply ethical considerations in the conduct of scientific research with humans and animals
- Adherence to appropriate ethical practices in the thesis research

E. Project Management

- Design and execute a thesis project within a reasonable timeframe
- Draw and defend conclusions related to the results of the thesis study
- Collaborate effectively with your thesis committee in completing the thesis and respond effectively to constructive feedback.

Job Prospects for Biology Graduates

MS in Biology

Bioremediation
Biotechnology
Medical Research
Industry
Government
Education
Microbiology
Health Professions
Research Laboratories

Teaching
Pharmaceuticals
Public Health
Food Production
Pollution Control
Environmental Diagnostics
Forestry
Agriculture

Find Out More about Biology at UWF:

<http://uwf.edu/biology/degree>

APPENDIX B.MS.BIOLOGY.THESIS
EMBEDDED ASSESSMENT INSTRUMENT FOR DOMAIN(S): INTEGRITY/VALUES, PROJECT MANAGEMENT

Program: M.S. Biology, Thesis track
Course Name: Directed Thesis
Instructor: All major advisors
Emphasized Programmatic SLOs: Integrity/Values, Project Management
Tangible Course Product to be Evaluated: Thesis

Suggested Implementation for Embedded Assessment:

During or following the thesis defense for each of your assigned students, complete the following rubric and note characteristics contributing to your rating in the comment section below the rubric:

M.S. Biology, Thesis track Academic Learning Plan Criteria Upon completion of thesis defense, student was able to:	Unsatisfactory (D/F)	Satisfactory (C)	Very Good- Excellent (A/B)
Integrity/Values			
Apply ethical considerations in the conduct of scientific research with humans and animals.			
Adhere to appropriate ethical practices in the thesis research.			
Project Management			
Project Conceptualization:			
Design and execute a thesis project within a reasonable timeframe.			
Project Delivery:			
Draw and defend conclusions related to the results of the thesis study.			
Team-Work Skills or Self-Regulation:			
Collaborate effectively with thesis committee in completing the thesis and respond effectively to constructive feedback.			

General characteristics leading to ratings of UNSATISFACTORY:

General characteristics leading to ratings of SATISFACTORY:

General characteristics leading to ratings of VERY GOOD-EXCELLENT:

How will these results influence your thesis supervision in the future?

What recommendations can you make to the department to improve the quality of this experience for future students?
