

## ***Biology***

### **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 with emphasis on biology and pre-professional programs.*

### **Student Learning Outcomes**

UWF Biology graduates should be able to do the following:

#### **Content**

- Identify and use the concepts, principles, and theories that constitute the core sub-disciplines of the biological sciences
- Employ techniques central to analysis of biological materials
- Describe discipline-related career paths for which recipients of the BS in Biology are qualified

#### **Critical Thinking**

- Apply scientific method to solve problems in the biological sciences
- Select and conduct appropriate statistical analyses

#### **Communication**

- Employ biological terminology accurately
- Use language in written form effectively and professionally
- Communicate biological information in oral form employing appropriate technology

#### **Integrity/Values**

- Describe ethical challenges involved in conducting scientific research with humans and animals
- Adhere to appropriate ethical practices in research and professional activities

## Project Management

- Design and execute a project that incorporates a reasonable time line to address a problem in the biological sciences
- Draw and defend conclusions related to the results of the study
- Collaborate effectively with others on team projects

## Assessment of Student Learning Outcomes

Students in the Biology Program will be assessed for Discipline Knowledge and Skills, and Critical Thinking by taking an exam developed by the Biology faculty covering the key competencies in Biology to be administered twice, once in a required freshman level course (test outcome not related to the grading of the course) and again in a required senior level Bio seminar course (test outcome not related to the grading of the course). Exam results from beginning/ending time points in the program will allow the Biology Department to determine the proficiency level of students coming out of high school at the start of the program, and the degree to which to the students have progressed through the program. Students in the Biology Program will be assessed for Integrity/Values and Communication by writing a summary critique of a presentation that includes Integrity/Values given in the required senior level Bioseminar course. Students in the Biology Program will be assessed for Project Management by assigning students to teams that will be required to review the primary literature on an appropriate topic and create a presentation to be given as part of a required upper division Biology course. Biology faculty will review the outcome of all assessment procedures to evaluate the current status of the program, and make suggestions for further improvement in programmatic effectiveness.

## Employment Opportunities for Biology Graduates

Biotechnology Industry	Scientific Research
Medical Research	Government
Biological Research	Education
Bioremediation	Microbiology
Health Professions	Pharmaceuticals
Public Health	Food production
Pollution Control	Environmental work
Forestry	Agriculture

## *Find Out More about Biology at UWF:*

<http://uwf.edu/cse/departments/biology/undergradprograms/bs-biology/>