Institutional Effectiveness

2021-2022

Program: Biology MS

College and Department: College of Arts & Sciences – Department of Biology

Contact: Christopher Brown

Mission: The primary mission of the Department of Biology at Tennessee Tech is to promote biological education in, and advance biological knowledge for, the region, state, and nation through teaching, research, and public service.

The Department of Biology has three degree programs (B.S. in Biology, B.S. in Wildlife and Fisheries Science, and M.S. in Biology). Each degree program has a separate report. Program Goals and Student Learning Outcomes for the undergraduate programs are similar since Wildlife and Fisheries Science is applied Biology; however, assessment results differ for most goals and outcomes based on the assessment techniques used. The graduate program has a unique set of goals and learning outcomes.

Program Goals:

PG 1: Increase graduate student enrollment and thus graduation rates through recruitment, retention, and marketing.

Increase graduate student enrollment by 10% annually, and thus increase graduation rates, through recruitment, retention, and marketing.

PG 2: Make significant progress toward increasing diversity.

The Department of Biology will make significant progress toward designing and affirmative action objectives.

PG 3: Increase faculty involvement in research and the graduate program.

Increase faculty involvement in research and the graduate program through differential teaching loads to interested tenure-track or tenured faculty members.

Student Learning Outcomes:

SLO 1: All Master of Science candidates in the Department of Biology will demonstrate a command of principles within general biology and the specialized disciplines in their area of interest.

The Department of Biology desires an outcome that 100% of Master of Science candidates demonstrate a command of principles within general biology and the specialized disciplines in their area of interest through successful completion of oral compai aele 7

research are included to ensure that each student understands the implications of their research and the scientific method.

Results:

PG 3: Increase faculty involvement in research

Three promotions occurred in the last five years (Table 3); two Assistant Professors received tenure and were promoted in 2017-18, and one Associate Professor was promoted this past year. This number should increase greatly over the next two years, as we will potentially have six faculty going up for promotion during this time.

Table 3. Number of faculty promoted to the rank of Associate Professor and Professor over the past five years. Note: This denotes the year that the faculty member was promoted.

2019-2020	8
2020-2021	6
2021-2022	10

Modifications for Improvement

This year, the Biology Department Planning Committee will begin examining modifications to the goals and student learning outcomes for both our bachelor's and master's programs. The committee is being reorganized to include faculty from all levels (tenured, tenure-track, and lecturers/instructors). We will revisit both the goals/outcomes and the methods of assessing each of these. This is a long overdue process, as well over half the current faculty have started since the last time these goals/outcomes were assessed and modified.

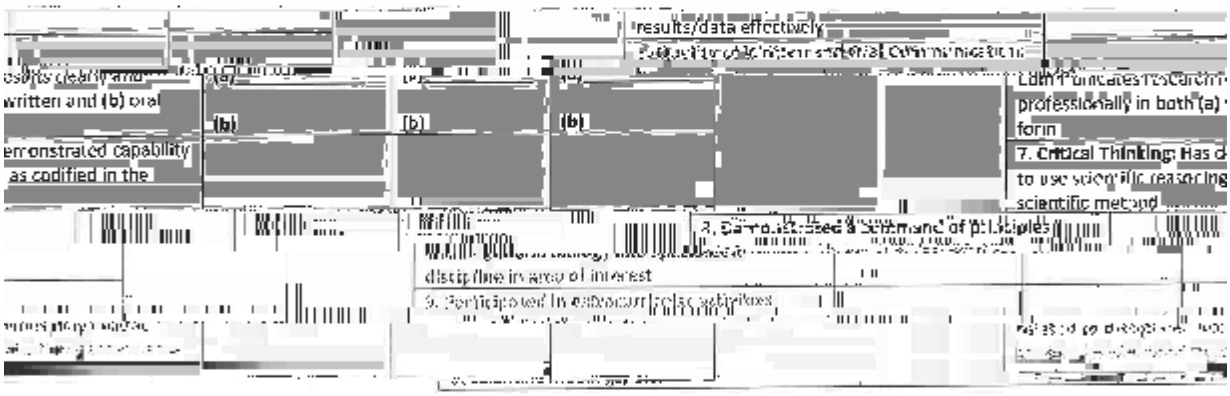
Appendices

1. Curriculum Map
2. Thesis Defense Rubric

BIOL 5650	Marine Biology	X		X
BIOL 5750	Medical Microbiology	X		
BIOL 5780	Phycology	X		X
BIOL 5810	Ichthyology	X	X	X
BIOL 5820	Mammalogy	X		X
BIOL 5830	Herpetology	X		X
BIOL 5840	Limnology	X		X
BIOL 5850	Applied Microbiology	X		X
BIOL 5860	Disease Prevention	X		
BIOL 6140				

WFS 5500	National Wildlife Policy	X	X	X
WFS 5640	Waterfowl Ecology & Mgmt.	X		X
WFS 5660	Wild Bird Ecology	X		
WFS 5670	Wild Mammal Ecology	X		
WFS 5700	Habitat Management			X
WFS 5710	Fisheries Management			X
WFS 5711	Fisheries Management			X
WFS 5730	Conservation Biology		X	X
WFS 5740	Wildlife Principles	X		X
WFS 5760	Fish Culture		X	
WFS 5770	Nongame Species Mgmt.	X	X	
WFS 5870	GIS for Wildlife & Fisheries	X		

Appendix 2: Thesis Defense Rubric



_____ Student Passes Thesis Defense Exam

_____ Student Does Not Pass Thesis Defense Exam

Name of Committee Chair: _____

Signature of Committee Chair: _____