Degree Program Assessment Plan

Degree Program - AS - Zoology (BS)

CIP Code: 26.0701.00
Next Program Review: 09-10
Degree Program Coordinator: Ron Chesser
Degree Program Coordinator Email: ron.chesser@ttu.edu
Degree Program Coordinator Mail Stop: 3131

Student Learning Outcome: General comprehension and scientific reasoning

To possess a general understanding and appreciation of invertebrate and vertebrate diversity, including structural and evolutionary relationships and to demonstrate proficiency in critical thinking and scientific reasoning.

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 06/15/2015

Assessment Methods

Method 1 - Students are able to answer at least 70% of embedded questions correctly on the second exam. (Active)

Method 2 - Conduct anonymous exit interviews/surveys that cannot be tracked during the sophomore and senior years to a sample of students and determine what students they think they have learned and how they have grown academically during their undergraduate experience. Sophomore surveys should help with the issue of retention. (Active)

Student Learning Outcome: Degree of specialization

To possess both general knowledge of animal biology and specialized knowledge in some taxonomic group (e.g. Ornithology, Mammalogy, Herpetology, Entomology, etc.).

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 06/15/2015

Assessment Methods

Method 1 - Evaluate students in BIOL 3320 (Cell Biology) This will be done by identifying how they cooperate in group situations, learning to construct and develop ideas in to platforms such as scientific posters in which each student takes part in both the

05/17/2018  Generated by Nuventive Improve
construction and presentation of data.

(Active)

**Criterion:** Method 1 - in Cell Biology to show competency and be able to recognize and measure each other's relative contributions to the group effort. This will be reported to the instructor, who will also have independently evaluated the poster, presentation and students' relative contributions.

Method 2 - demonstrate understanding of the biology of mammals by taking Introduction to Mammalogy (ZOOL 4406). Proficiency will be achieved through participation in class discussions, and development of specimen collection and the ability to recognize diagnostic characters in the lab, besides in class examinations.  

(Active)

**Criterion:** Method 2 - students must be able to prepare mammal skins to the satisfaction of the instructor, to participate in class discussions in the lab and lecture and pass a practical exam with at least a 70% score.

**Student Learning Outcome: Research methods in Zoology**

To demonstrate an understanding and appreciation of research methods in used in Zoology

- **Outcome Status:** Active
- **Outcome Type:** Student Learning
- **Start Date:** 06/15/2015

**Assessment Methods**

- **Method 1:** In Comparative Animal Physiology (ZOOL 4409), students will be evaluated based on the thoroughness and accuracy of the laboratory notebook.

(Active)

**Criterion:** Method 1 - Laboratory notebooks must be complete with accurate protocols and experimental write-ups on various topics covered in the lab. Students are expected to demonstrate both understanding of the experimental design and results of the experiment to the satisfaction of the instructor.

- **Method 2:** In BIOL 4300 (Undergraduate Research) students are given individual or group projects in an active research lab; they are evaluated based on their work ethic and effort in the lab, presentations given at lab meetings or research conferences and their relative contributions to publishing the results of their work.  

(Active)

**Criterion:** Method 2 - In the research lab, students will be expected to independently work on either their own or a group project to the degree that a formal presentation will be given to the lab group that is clear and concise, and then provide criticism on their own presentations, as well as other students in the lab. Some mentors expect presentations at regional or national meetings where the student is first author and presenter. If the results of the research is published, authorship (and relative position on the author line) will be determined by contributions to the generation of data and to the writing of the manuscript.

**Student Learning Outcome: Postgraduate preparation in Zoology**

To possess a sufficient knowledge to excel in professional and graduate school or obtain employment in zoologically related fields upon completion of the degree.

- **Outcome Status:** Active
- **Outcome Type:** Student Learning
- **Start Date:** 06/15/2015
### Assessment Methods

**Criterion:** At least 70% of the students should be making detectable progress in writing skills throughout the courses and should improve their ability to articulate various aspects of Zoology.

Students in BIOL 4101 (Biology Seminar) will summarize in written form the various departmental seminar speakers' topics to reflect on their understanding. This will be submitted to the instructor and returned. This will indicate development of communication skills as experience in writing is gained. Students in BIOL 4110 (So you want to be a biologist, now what?) will be asked to interview faculty members of other professionals to gain firsthand knowledge of what it takes to be an academician. These will be presented to the class.

**Method:** At 3 and 6 years sampling of alumni (who have taken both BIOL 4110 and BIOL 4101) will be surveyed to identify what percentage of students have matriculated to the career they thought would be appropriate based on their experiences as Zoology majors in DBS. Alumni will reflect on how their preparation impacted their academic development and/or ability to acquire jobs.

**Criterion:** Method 2 - that at least 70% of students surveyed should indicate that their experiences in Biological Sciences contributed to their development and ability to matriculate to graduate or professional schools and/or acquire the job of their choice in biology,