

Course Description ZOO1010L |Zoology Laboratory | 1.00 credit Laboratory for ZOO1010. Corequisite: ZOO1010. Laboratory fee.

Competency 1: The student will demonstrate proficiency in data collection by:

- 1. Collecting and recording accurate and detailed observations of animal behavior during laboratory experiments
- 2. Gathering and organizing quantitative and qualitative data using appropriate tools and techniques
- 3. Identifying and selecting relevant data points to support scientific hypotheses and conclusions

Competency 2: The student will exhibit competence in data analysis by:

- 1. Applying statistical methods to analyze and interpret collected data, such as calculating averages, standard deviations, and correlations
- 2. Using appropriate software or tools to create visual representations, such as graphs or charts, to illustrate patterns and trends in the data
- 3. Drawing logical conclusions and inferences based on the analyzed data, linking them to the underlying biological concepts

Competency 3: The student will develop proficiency in scientific reasoning by:

- 1. Formulating testable hypotheses based on prior knowledge and observations
- 2. Designing controlled experiments to explore the cause-and-effect relationships between variables
- 3. Evaluating and critically analyzing scientific literature, identifying strengths and weaknesses in experimental design and methodology

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information