Zoology 435 – Course Outcomes

By the end of the course, students will be expected to:

1. Describe the diversity and evolution of insects using phylogenetic trees, and discuss key evolutionary events in insect evolution.

2. Describe the structure function relationships that allow insects to feed, move, reproduce, and maintain life (respiration, excretion, ionic and osmotic regulation, and control/nervous systems).

3. Compare and contrast how different groups of insects feed, reproduce, develop, defend themselves, communicate, behave, and interact with their environment.

4. Discuss insect biology and ecology in the context of conservation, management, and other human-insect interactions.

5. Find and critically evaluate science communication on insects in different formats.

6. Share knowledge on a topic through writing, visualizations, video, or auditory podcast format.

7. Collect insects using active and passive methods.

8. Curate online and physical insect collections with metadata sufficient for scientific research.

9. Curate physical insect collections by pinning, and spreading and pointing if necessary.

10. Identify insects to order, and for seven major orders to more inclusive taxonomic ranks (e.g., super-family, family, and in rare cases genus or species).

11. Contribute biodiversity records to international scientific databases.

12. Critically reflect on and revise your approach to scientific research.

13. Give and receive appreciation and constructive coaching feedback.