

Summer Ecosystem Experiences for Undergraduates (SEE-U)

Field Methods in Ecology & Conservation Biology in Jordan

ENVB 2106 & ENVB 2107 (6 credits)

Summer 2014: Sunday, May 25 – Monday, June 23, 2014

Instructor: Jenna M. Lawrence, Ph.D.
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Teaching Assistant: TBD

Course description:

With an emphasis on ecological interactions and conservation, this course will introduce students to the enormous diversity of life on Earth, from genes to species to ecosystems, as well as to the field methods used to investigate it. In addition to integrating field and classroom approaches to the study of terrestrial and marine ecology, the course will also use basics of genetics and evolutionary biology to explore how diversity is generated and maintained. Moreover, the course will explore current issues in sustainable development and resource management in Jordan. The centerpiece of the course will be the individual project: students will learn how to plan, execute, and present scientific research on a cutting-edge project with real-world implications. No previous knowledge of science is assumed.

COURSE OBJECTIVES

- Appreciate the diversity of taxa and ecosystems on land and in the seas, particularly in Jordan.
- Explore current controversies regarding the sustainable management of water, energy, and biodiversity in Jordan.
- Understand the effects of human activities (both positive and negative) on species persistence and ecosystem functioning.
- Become familiar with methods of research, management, and analysis through exposure to primary literature.
- Gain an understanding of the scientific method and its theoretical underpinnings.
- Become fluent in varied methods of ecological sampling and statistical analyses.
- Learn to present research in both written and oral forms.

Grading:

Grading will be based on quizzes (35%), the individual research project (written proposal and Powerpoint presentation; 50%), and engagement and compliance (15%).

Required text:

Maani J. 2008. *Field Guide to Jordan*. Maani Publishing.