Dr. Anne Nielsen
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Insect Ecology
Course number: 16:370:525

| **Lecture Topic** | **Reading /Guest Lecturer** |
|---|---|
| Introduction and Scope | Chpt 1, 14 |
| Behavioral Ecology | Chpt 2 (except 2.7) & 3 |
| Evolutionary Ecology | Chpt 1.6, 4.6 |
| Trophic Interactions 1 – Chemical communications | Cesar Rodriguez<br>Chpt 2.7 |
| Herbivory | Chpt 4 |
| Mutualism, symbiosis and competition | Chpt 5 & 6 |
| *Midterm* | |
| Trophic Interaction 2 – Predator/Prey Dynamics | Chpt 7 & 8 |
| *No Class* | *Spring Break* |
| Population Biology 1 | Chpt 9 & 10 |
| Population Biology 2 | Chpt 11 |
| Food webs | Chpt 12 & 13 |
| *Student presentations* | |
| Invasion Ecology | Chpt 15.4<br>Term paper/grant proposal due |
| Future and Applications– conservation, climate change, fragmentation; community ecology | Chpt 15.2 |
| *Final Exam* | |

Class will be a mix of lecture and discussion. The course will use the 2011 textbook: "Insect Ecology" by Price, Denno, Eubanks, Finke and Kaplan. For each topic there will also be seminal papers about ecological theory (as it relates to insects) or species/system specific papers that provide good examples of the topic. Each student will lead at least one paper during a discussion period. Students are expected to distribute 4 questions on each paper to the class the day before. One or two weeks prior to the grant proposal due date, students will send an outline of objectives and hypotheses tested.

*You will be evaluated on:*

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| 10% | Discussion participation |
| 30% | Midterm (written) |
| 30% | Term paper/presentation |
| 30% | Final (oral) |