



## Syllabus for (11:370:415)

### DECOMPOSITION ECOLOGY

(3.0 credits)

**Instructor:** Denise Gemmellaro ([Mdg161@scarletmail.rutgers.edu](mailto:Mdg161@scarletmail.rutgers.edu))

**Semester, Period & Format:** Summer; M-F (all day 6/20-7/1) Lecture/lab/Field

**Location:** New Jersey School of Conservation, Sussex County

**Pre-requisites:** 11:370:202 or 11:370:381 (suggested)

#### Suggested Texts:

Byrd, J.H. and J. L. Castner. (eds.) 2009. *Forensic Entomology: The Utility of Arthropods in Legal Investigations* – Second Edition. CRC Press, Inc. Boca Raton, Florida.

Catts, E.P. and N.H. Haskell. 1990. *Entomology and Death: A procedural guide*. Joyce's Print Shop, Inc. Clemson, South Carolina.(optional)

Class	Lecture	Lab/Field Activity
1	Introduction & History of Forensic Entomology	Setting up a decomposition ecology experiment
2	Introduction to Insect Anatomy	Visit several "crime scenes"; evidence collection
3	Lab: Insect Orders, Flies & Beetles	Visit several "crime scenes"; evidence collection
4	Fly & Beetle Development	Visit several "crime scenes"; evidence lab analysis
5	Collection & Rearing	Rearing evidence in lab
6	Aquatic Ecosystems	Lab colonies; collection from aquatic scenarios
7	Estimating PMI	Mounting maggots on a slide
8	Problems in Estimating PMI	Identification of problematic specimens
9	Case work discussion	PMI estimate base on the evidence collected
10	Problems with forensic analysis procedures	Preserving evidence

### **Course Learning Goals:**

- Attain mastery in field practices and study of forensic entomology
- Gain professional experience in forensic entomology

### **Student Learning Assessment:** [% of final grade]

- Two hourly exams are given during lecture periods [50%]
- Five laboratory identification quizzes [20%]
- Term paper [10%]
- Class attendance and participation [20%]

### **Contact Information:**

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Office Hours by arrangement