INTRODUCTORY ENTOMOLOGY
Pltsci./Biosci. 3710 (3 credit hrs)
Tues/Thur. 9:30-10:45am; Rm. 2-16 Agriculture Bldg.

Instructor:  Dr. Bruce Barrett, 3-22i Agriculture Bldg., 882-3446
Office Hours: Tues. & Thur. 11:00 a.m.-12:00 p.m., or by appointment.
E-mail: BarrettB@missouri.edu

Text:  
The Insects: An Outline of Entomology, 3rd ed. (Gullan and Cranston)

Course Objectives: In adaptive diversity and number of species, insects are among the most successful of all organisms on the earth. The goal of this course is to introduce you to the world of insects so that you can gain a better appreciation for the role they play in the scheme of life. Specifically, we will cover the following areas of insect biology and ecology:

- Structure, Function and Development
- Diversity
- Communication and Behavior
- Relationship to Plants, Animals and the Environment
- Beneficial and Harmful Insects

Date (T/Th)          Topic                                      Reading Assignments

Introduction

(T)  Significance and Diversity of Insects, Overview of Cultural Entomology pp. 1-8, handouts

Structure, Function and Development

(Th)  Exoskeleton & Molting                    pp. 21-27
(Th)  Classification: Major Orders             pp. 295-296, 325
(Th)  Exam #1                                  pp. 296-297, 391-393, 289
(Th)  Major Orders cont.                       pp. 296-297, 391-393, 289
(Th)  Development and Life Histories           pp. 59-61, 141-156
(Th)  Internal Systems cont.                   pp. 85-98, 105-109
(Th)  Major Orders cont.                       pp. 296-297, 391-393, 289
(Th)  Exam #1                                  pp. 296-297, 391-393, 289
(Th)  Sensory Systems                          pp. 296-297, 391-393, 289
(Th)  H,T,A cont. / Internal Systems           pp. 56-58, 61-81, 241-245
(T)   Internal Systems                         pp. 85-98, 105-109

Diversity

(Th)  Classification: Major Orders             pp. 295-296, 325
(Th)  Exam #1                                  pp. 296-297, 391-393, 289
(Th)  Major Orders cont.                       pp. 296-297, 391-393, 289

Communication and Behavior

(Th)  Fundamentals of Behavior                   pp. 98-104
(Th)  Reproduction                               pp. 109-111
(Th)  Reproduction cont.                        pp. 81-84, 113-139
(T)   Social Insects                             pp. 299-314

(T)    Semiochemicals                            pp. 98-104
(Th)*  Reproduction                              pp. 109-111
(T)    Reproduction                              pp. 81-84, 113-139
(T)    Social Insects                            pp. 299-314
Social Insects cont.

Insect Defenses Insect Defenses cont.

Exam #2

Exam #3

------Thanksgiving Break-----

------Thanksgiving Break-----

Relationship to Plants, Animals and the Environment

Insects and Plants

Insect Pollinators

Insect Predation and Parasitism

Insects of Medical Importance

Insects and the Decompositional Habitat

Insects and Environmental Change

Exam #3

-----Thanksgiving Break-----

Exam #3

-----Thanksgiving Break-----

Applied Entomology

Principles of Pest Management

Principles of Pest Management cont.

Common Insect Pests of the Midwest

Final Exam (1:00-3:00 pm)

At Blackboard site:
- course announcements
- lecture presentations (PowerPoint)
- lecture outlines/handouts posted 1-2 days before scheduled lecture topic (print & bring to class)
*Post-exam review sessions (6:00-7:00 pm, location TDB)

There will be several surprise quizzes throughout the semester, and each quiz will be worth 5-10 points. Exams #1-3 will each consist of about 50 multiple choice/matching questions. The Final Exam will be comprehensive and consist of multiple choice/matching questions and several short essay questions.

Grades based on course points (approximate):

Quizzes = 10% (50 points)

Exam #1 = 20% (100 points)

Exam #2 = 20% (100 points)

Exam #3 = 20% (100 points)

Final Exam = 30% (150 points)

Academic Dishonesty

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person’s work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor.

Americans with Disabilities

If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Office of Disability Services (http://disabilitiesservices.missouri.edu), S5 Memorial Union, 882-4696, or the course instructor immediately. Reasonable efforts will be made to accommodate your special needs.