**ENT 550, Fundamentals of Insect Control**, is a survey of the methods used to manage arthropod pests affecting plant resources, livestock, homes, and health. The course covers cultural, mechanical, biological, regulatory, chemical, and other pest management strategies. The course concludes with discussions of how these strategies can be brought to bear on pest management problems in various arenas. Laboratory exercises are designed to provide practical experience with several key pest management concepts.

The grade is determined by three exams over the course of the semester, three assignments, and a term research project (with written and oral presentation components) on the management of pests in a commodity or arena selected by the student and professor.

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**ENT 550 Fundamentals of Insect Control**
Lecture and Laboratory Schedule

Class meets 10:15-11:05 MW
LAB 1:30-3:30 TH

Lecture 1 First Meeting - Introduction, History of Insect Management
Lecture 2 Monitoring and Sampling
Lecture 3 Economic Injury and Decision Making
Lab 1 Arthropod Sampling (field trip)
Lecture 5 Physical and Mechanical Pest Management
Lecture 6 Autocidal and Genetic Pest Management
Lecture 7 Cultural Pest Management
Lab 2 Host Plant Resistance
Lecture 8 Biological Control
Lab 3 Biological Control (Field Trip)
Lecture 9 Behavioral Pest Manipulation - Repellents
Lecture 10 Behavioral Pest Manipulation - Attractants and pheromone technology
Lab 4 Behavioral Control
Lecture 11  Chemical Control - Toxicology of Insecticides
Lecture 12  Cuticle and Respiratory Insecticides
Lecture 13  Inorganic and Botanical Insecticides
Lecture 14  The History of Synthetic Insecticides, and Organochlorine Insecticides
Lecture 15  Organophosphate and Carbamate Insecticides
Lecture 16  Pyrethroid Insecticides
Lab 5  Insecticide Application Technology (Field Trip)
Lecture 17  Neonicotinoid Insecticides
Lecture 18  Trends in New Insecticides
Lab 6  Insecticide Discovery and Development (Field Trip)
Lecture 19  Insect Growth Regulators
Lecture 20  Transgenic Crop Plants
Lab 7  Transgenic Crop Plants (Field Trip)
Lecture 21  Insecticide Metabolism and Synergism
Lecture 22  Insecticide Modes of Action – Nervous system toxicants
Lecture 23  Silent Spring Class Discussion
Lecture 24  Resistance and Other Forms of Backlash to Pest Management
Lecture 25  Non-target and Environmental Effects of Pest Management
Lecture 26  Pesticide Laws and Regulations
Lecture 27  Integrated Pest Management Summary

The last several class meetings (depending on enrollment) are reserved for student IPM commodity presentations.

This schedule is subject to change as the semester progresses.