



MASTER COURSE OUTLINE

Prepared By: Landra Kosa

Date: Mar 2019

COURSE TITLE

Integrated Pest Management

GENERAL COURSE INFORMATION

Dept.: AGR

Course Num: 251

(Formerly:)

CIP Code: 01.0301

Intent Code: 22

Program Code: 105

Credits: 5

Total Contact Hrs Per Qtr.: 55

Lecture Hrs: 55

Lab Hrs:

Other Hrs:

Distribution Designation: GE

COURSE DESCRIPTION (as it will appear in the catalog)

In this course, students will learn strategies for controlling weeds, insects, pathogens, nematodes, and vertebrate pests as well as how to set up sampling and monitoring programs in the field. The course will cover the biological nature of pests, focusing on how their population dynamics and ecological interactions with other species and how their environments contribute to their detrimental impacts on agriculture and human resources. (Previous Course Title: Ecologically Based Pest Management).

PREREQUISITES

None

TEXTBOOK GUIDELINES

Integrated Pest Management textbook determined by Agriculture faculty (Example: *IPM in Practice* by Mary Louise Flint)

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. Describe how pest organisms impair the structure and/or functioning of ecosystems.
2. Identify plant diseases based off the symptoms exhibited by the plant.
3. Explain how plant diseases are managed.
4. Describe the disease cycle and how pathogens, hosts, and environment interact.
5. Apply general entomology content including insect morphology, classification, and biology.
6. Explain how biological, mechanical, and cultural controls are used.
7. Develop an integrated pest management plan.
8. Describe the advantages and limitations of various pest management strategies.

INSTITUTIONAL OUTCOMES

COURSE CONTENT OUTLINE

- Ecological Principles
 - Abiotic Components
 - Biotic Components

- IPM Concepts
- Pests
 - Insect Identification
 - Insect Morphology
 - Insect Classification
 - Pathogens
 - Disease cycle
 - Fungi
 - Bacteria
 - Viruses
- IPM Methods
 - Mechanical Control
 - Cultural Control
 - Physical Control
- Monitoring and Decision Making

DEPARTMENTAL GUIDELINES *(optional)*

DIVISION CHAIR APPROVAL

DATE