

**Mercer County Community College**  
**Science and Health Professions Division**  
**OHT 241 – Equipment and Integrated Pest Management**  
**Spring 2008**

**Credits:** 3  
**Lecture Hours:** 2  
**Laboratory Hours:** 2

**Instructor:** Amy Isenecker, Assistant Professor  
**Office Number:** MS 124  
**Phone Number:** (609)570-3372  
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**Course Description:**

Equipment and procedures in horticultural settings with emphasis on pest management. Includes strategies and theories of integrated pest management; biological pest controls; application of pesticides; weed control; calibration of equipment; and spraying techniques.

**Prerequisites:** OHT 102 or permission of course coordinator

**Required Text:**

Title: Concepts in Integrated Pest Management  
Author: Norris; Caswell-Chen; Kogan  
Publisher: Prentice Hall

**Optional Text:**

Title: The Standard Pesticide User's Guide, 5th Edition  
Author: Bert L. Bohmont  
Publisher: Prentice Hall

**Optional Text:**

Title: Common Sense Pest Control  
Author: W. Olkowski; Daar; H. Olkowski  
Publisher: The Taunton Press

**Grading:**

Grades will be based on the following point system:

Midterm Exam	150
Final Exam	150
Quizzes	100
Reports	100
Final Project	<u>100</u>
Total	600

## **Explanation of Point System:**

**Exams:** Exams will be based on lecture material. The midterm exam will be based on the first half of the course. The final exam will be cumulative with an emphasis on the second half of the course. The date of the final exam is to be announced. I reserve the right to re-test you if a grade received is not consistent with your normal performance. You must show up on time to take your exams. If you are late to class to take an exam, and one of your classmates has already finished the exam and left the room, you will not be allowed to take it. You are also responsible for all missed material for exams and quizzes. I would suggest you pair up with a classmate so you have easy access to notes, etc.

**Quizzes:** Quizzes will be given in lecture and will cover the material from the previous lecture. Each quiz is worth 10 points and will be given at the beginning of lecture. The lowest quiz grade will be dropped at the end of the semester. You will not be given extra time to complete the quiz if you show up late to lecture, and no make up quizzes will be given.

**Reports:** Periodic lab reports will be assigned over the course of the semester. Each report will be worth 10 points and will be due the following week in lab. The reports are required to be typed and at least one page in length. You will lose 2 points if you do not type the report. Reports will not be accepted late so if you miss lab, you must e-mail it to me on the day it is due. The lowest lab report grade will be dropped at the end of the semester.

**Final Project:** See attached sheet for project description. You must present and turn in a typed project on the due date. If you do not present your report, you will lose 20 points. In addition, you will lose 10 points if you do not type your project and 5 points for every day that your project is late.

**Make-up Policy:** The instructor must be notified within 24 hours of an exam if it is going to be missed for an excused reason. (Excused absences include illness, death, transportation problems etc.) If this is done, the student will be able to make up the exam at the convenience of the instructor as long as proper documentation is provided. Otherwise, no make-up will be offered. Make-up quizzes or reports will not be allowed for any reason; however, you are responsible for any missed material.

**Cell Phone Policy:** According to college policy, the ringer on cell phones must be turned off during lab and lecture.

**Lab Dress Code:** You must wear sturdy shoes to lab. This means no open toe shoes, flip-flops or sandals.

**Statement of Academic Integrity:** “Any student who a) knowingly represents the work of others as his/her own, b) uses or obtains unauthorized assistance in the execution of any academic work, or c) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized in accordance with established college policies and procedures.” (If you are caught cheating, you will receive a zero for the assignment or test and you will be turned in to the Academic Integrity Committee.)

**Behavior Statement:** I encourage participation in my course. I enjoy you asking questions and sharing your experiences. I, however, will not tolerate any of the following behaviors in my course. These behaviors will result in your dismissal from class for the day.

- Physical or Verbal Threatening Behavior or Derogatory Remarks Towards the Instructor and/or Fellow Classmates
- Using Cell Phones During Class (including text messaging)
- Carrying on Side Conversations

**Statement from the Office of Special Services:**

Any student in this class who has special needs because of a disability is entitled to receive accommodations. Eligible students at Mercer County Community College are assured services under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973.

If you believe you are eligible for services, please contact Arlene Stinson, the Director of Academic Support Services. Ms. Stinson’s office is LB 221, and she can be reached at 609-570-3525.

**Mercer’s Grading System:**

A	93 – 100
A-	90 – 92
B+	87 – 89
B	83 – 86
B-	80 – 82
C+	77 – 79
C	70 – 76
D	60 – 69
F	0 – 59

**Course Objectives:**

- Identify major insects, weeds, diseases, and other pests that are detrimental to every aspect of the horticulture industry.
- Define Integrated Pest Management.
- Implement a successful Integrated Pest Management program.
- Use and identify a wide variety of chemical, biological, cultural, mechanical, and preventative control methods for greenhouse and nursery crops.

- Calibrate sprayers and spreaders for the application of grass seed, fertilizers, and pesticides.
- Become familiar with various pieces of equipment such as skid steers, loaders, sod cutters, arborist equipment etc.
- Demonstrate safe mixing and application of pesticides.
- Identify possible jobs that are available in the field of Integrated Pest Management.
- Understand and use economic thresholds.
- Calculate growing degree days.
- Identify the steps necessary for obtaining your pesticide applicators license.
- Perform various Integrated Pest Management sampling techniques.
- Identify common predators and parasites.
- Use general management strategies such as proper plant, soil, and fertilizer selection.

### **Schedule:**

- 1/28: Introduction to Integrated Pest Management; Starting the Project.  
Read: Chapters 1, 2, and 9
- 2/04: **Quiz #1**; Economic Injury Levels, Economic Thresholds, Pest Resurgence, Secondary Pest Outbreaks, Growing Degree Day Calculations  
Read: Handouts; Chapters 4, 8, and 12
- 2/11: **Quiz #2**; Economic Injury Levels, Economic Thresholds, Pest Resurgence, Secondary Pest Outbreaks, Growing Degree Day Calculations Continued  
Read: Handouts; Chapters 4, 8, and 12
- 2/18: **Quiz #3**; Scouting and Monitoring Techniques; Developing a Scouting Plan; **Semester Project Preview Presentation Due**
- 2/25**: **Quiz #4**; Common Plant Pests; Identification and Management  
Read: Chapters 5, 6, 7 and 10
- 3/03**: **Quiz #5**; Common Plant Pests; Identification and Management  
Read: Chapters 5, 6, 7 and 10
- 3/10**: **Quiz #6**; Common Plant Pests; Identification and Management  
Read: Chapters 5, 6, 7 and 10
- 3/17: **No Class – Spring Break**  
Read: None

3/24: **Quiz #7**; Proper Equipment and Chemical Usage  
Read: None

3/31: Midterm Exam

4/07: Results of Midterm Exam; Biological and Behavioral Management  
Techniques  
Read: Chapters 13 and 14

4/14: **Quiz #8**; Cultural and Preventative Management Techniques  
Read: Chapters 16 and 17

4/21: **Quiz #9**; Mechanical and Chemical Management Techniques  
Read: Chapters 11 and 15

4/28: **Quiz #10**; Introduction to the Development and Implementation of IPM  
Programs  
Read: Chapters 18, 19, and 20

5/05: **Quiz #11**; Guest Lecture  
Read: Handouts

5/12: **Project Presentations**  
Read: None

**Final Exam - TBA**

## **Semester Project**

### **OHT 241**

You are required to develop an Integrated Pest Management proposal for a real or theoretical business. Your project idea must be approved before you get started. Please include the following information...

Choose a business that you want to do a proposal for. Your business should be one of the following:

- field/forage crop farm
- vegetable farm
- orchard
- greenhouse operation
- golf course
- private estate
- nursery operation.

Your business should be of reasonable and realistic size.

Choose your plants. You must have a minimum of 5 different plants grown for the business.

Create a detailed plan for the Integrated Pest Management proposal that you are submitting. Your plan should include, but not be limited to the following information:

- descriptions and/or pictures of the most common weeds, insects, and diseases that affect the crops that you are growing
- chemical, mechanical, cultural, biological, and preventative controls that you plan on using in order to manage your plant pests
- how you plan on scouting for your pests
- the equipment and supplies that you will need in order to implement your program
- the damage levels that your plants can withstand
- estimated cost for the proposal to be implemented.

Please include a bibliography with your project.