

Date: October 2008

I. Course Name: Integrated Pest Management
Course Prefix and Number: HRT 200
Credit Hours and Contact Hours: 3 credit hours – 3 contact hours
Catalog Description:

Designed to provide the students with a working knowledge in developing environmentally sound programs in limiting harmful plant diseases and pests. The course will emphasize the principles and practices of integrating chemical, cultural, and biological controls, and issues related to pesticides and the environment. Training the students in the types and usage of pesticides and pesticide equipment will be included. Field trips.

II. Course Outcomes and Objectives

Learning Outcomes:

Upon completion of the course the participant will be able to

1. Develop an effective strategy for management of an insect pest, disease, or weed using Cooperative Extension guides and principles of integrated pest management as described by the NY State Department of Environmental Conservation
2. Explain the difference between current conventional, IPM and organic landscape maintenance programs
3. Research the modes of action and environmental hazards of specific pesticides, using pesticide labels and websites linked to the Cornell Pesticide Management Education Program
4. Discuss the value of natural landscapes in attracting birds and other natural enemies of insect pests
5. Explain the importance of best management practices in protecting water quality of lakes and streams; understand strategies that promote beauty in the landscape without pollution from over fertilization

Relationship to Academic programs and curriculum:

This course contributes to the preparation of Conservation and Horticulture majors for professional careers. A key goal is training the student in critical thinking and the ability to discuss environmental issues with an understanding of the scientific merits of arguments and the ethical choices related to pesticide and other chemicals used in landscape maintenance or farming.

College competencies addressed by the course:

<input checked="" type="checkbox"/> writing	<input checked="" type="checkbox"/> ethics/values
<input checked="" type="checkbox"/> oral communications	<input checked="" type="checkbox"/> citizenship
<input checked="" type="checkbox"/> reading	<input checked="" type="checkbox"/> global concerns

mathematics information resources
 problem-solving professional competency
 (x) computer literacy

III. Methods of Instruction

Types of Course materials:

Extension literature and guides, journal articles, research reports, evaluations of pesticides in technical literature

Methods of instruction:

Lecture, discussion, Powerpoint presentation, video, field trips, professional guest speakers

Assessment measures:

Reports written and oral, extended projects to develop IPM plans for specific pests, examinations

Methods of Evaluation:

Appropriate communication skills, reliability and timeliness, contribution to group activities, level of participation in class discussion, adequate familiarity with assigned reading, understanding key concepts

IV. General Outline of Topics covered

1. Introduction to Integrated Pest Management
2. The New York State Department of Conservation regulations
3. Pest Management with chemicals
4. Alternatives to synthetic pesticides
5. Using the Guidelines for Maintenance and Production of Trees and Shrubs
6. Safety for the applicator, the watershed and for non-target organisms
7. Application equipment choices and calibration
8. Understanding the ecosystem and the biology of the pest: specific examples