Tompkins Cortland Community College

Master Course Syllabus

Course Discipline and Number: ENVS 202 **Year: 2023-2024**
Course Title: Integrated Pest Management **Credit Hours: 3**

Attendance Policy: *To maintain good grades, regular attendance in class is necessary. Absence from class is considered a serious matter and absence never excuses a student from class work. It is the responsibility of all instructors to distribute reasonable attendance policies in writing during the first week of class. Students are required to comply with the attendance policy set by each of their instructors. Students are not penalized if they are unable to attend classes or participate in exams on particular days because of religious beliefs, in accordance with Chapter 161, Section 224-a of the Education Law of the State of New York. Students who plan to be absent from classroom activity for religious reasons should discuss the absence in advance with their instructors. See college catalog for more information.*

Services for Students with Disabilities: *It is the College's policy to provide, on an individual basis, reasonable accommodation to students with disabilities, which may affect their ability to fully participate in program or course activities or to meet course requirements. Students with disabilities should contact the Coordinator of Access and Equity Services, to discuss their particular need for accommodations. All course materials are available in alternate formats upon request.*

Course Description

This course will provide an introduction to the scientific concepts and principles of entomology, plant pathology, and weed science. Students will learn to identify common insect, disease, and weed pests and understand how cultural, biological, and chemical controls can be used to manage pests in a sustainable farming system. Lab fee required. ENVS 202 fulfills the SUNY Natural Sciences requirement, but is not a laboratory science course. Prerequisites: ENGL 099 if required by placement testing or prior completion or concurrent enrollment in ESL 120, 121, and 122 (or prior completion of ESL 103); MATH 090 if required by placement testing; RDNG 099 if required by placement testing. 3 Cr. (3 Lec.) Summer semester.

Course Context/Audience

ENVS 202 is a required course for students enrolled in the Sustainable Farming & Food Systems A.A.S degree program.
It may also be used to fulfill a science elective requirement or an unrestricted elective requirement.

Basic Skills/Entry Level Expectations

Writing:	W2	ENGL 099 or prior completion or concurrent enrollment in ESL 103 if required by placement testing. This course requires short written responses and/or short papers.
Math:	M2	MATH 090 if required by placement testing. Basic Mathematical skills are required.
Reading:	R2	Before taking this course, students must have a C or better in RDNG 099 or assessment indicating that RDNG 099 was not required.

Course Goals

Upon successful completion of this course, students will be able to identify pests and pest symptoms, and implement pest management techniques within a sustainable farming system.

Course Objectives/Topics

Objective/Topic	% Course
The student will become familiar with pest management techniques used in a sustainable farming system.	25%
The student will gain an understanding of the biology and ecology of insects, weeds, and disease causing organisms typically found in a sustainable farming system	25%
The student will learn to identify common weeds and insect pests, and to recognize the symptoms and signs of disease causing organisms and physiological disorders of plants.	50%

General Education Goals - Critical Thinking & Social/Global Awareness

CRITICAL THINKING OUTCOMES	HOW DOES THE COURSE ADDRESS THE OUTCOMES (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
Students will be able to develop meaningful questions to address problems or issues. gather, interpret, and evaluate relevant sources of information. reach informed conclusions and solutions. consider analytically the viewpoints of self and others.	This course will use an inquiry based approach to explore integrated insect, disease, and weed management in sustainable farming systems. Students will gain a comprehensive understanding of various techniques and methodologies used in making scientifically based pest management decisions in a sustainable farming system. Students will be asked how their own personal beliefs and those of others shape the decisions made in one's farm management choices. These outcomes are addressed through, lectures, readings, writing exercises, discussion, and explorations of the farm environment.
SOCIAL/GLOBAL AWARENESS OUTCOMES	**HOW DOES THE COURSE ADDRESS THE OUTCOMES** (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
Students will begin to understand how their lives are shaped by the complex world in which they live. Students will understand that their actions have social, economic and environmental consequences.	Students will be asked to consider how their farm management choices impact the ecological systems around them. The course will examine the social dimensions of pest management and focuses on why sustainable solutions must consider social context. The course will examine the economic dimensions of pest management, and focuses on why sustainable solutions must consider economic feasibility. These outcomes are addressed through lectures, discussion, readings, writing exercises, and explorations of the farm environment.

Instructional Methods

Lectures, site visits, readings, writing exercises, discussions, and farm observations are all appropriate.

Methods of Assessment/Evaluation

Method	% Course Grade
Participation	0-10%
Quizzes and Tests	40-70%
Writing Assignments	0-20%
Class Projects	0-50%

Text(s)

The Organic Gardeners Handbook of Natural Pest and Disease Control: A Complete Guide to Maintaining a Healthy Garden and Yard the Earth Friendly Way. Bradley, F.M., and Ellis, B.W. 2010. Rodale Organic Gardening Books. (ISBN 978-1605296777)

Bibliography

Organic Vegetable Production: A Complete Guide. Davies, G., and Lennartsson, M., eds. 2006. Crowood Press. (ISBN 978 1861-2678-87)

Organic Weed Management, Gilman, S., 2002. Chelsea Green, White River Junction. (ISBN 1-931498-29-6)

Plant Pathology (5th Ed.) Agrios, George N. 2004. Academic Press, San Diego. (ISBN 978-0120445653)

Other Learning Resources

Audiovisual No resources specified
Electronic https://attra.ncat.org/ http://www.weedid.wisc.edu/weedid.php https://nysipm.cornell.edu/agriculture/vegetables
Other No resources specified