COURSE DESCRIPTION
Organic Pest Management is open to advanced undergraduates and graduate students from CANR, CNS departments as well as other interested students.

Pest management in organic agroecosystems involves a more holistic outlook compared to pest management in “conventional” agroecosystems. In part this is due to the types of pest management tools available to the organic producer, but also because of qualitative differences between organic and conventional approaches towards agriculture. The three goals of this course are to: 1) provide students with knowledge regarding the philosophical, ecological, and regulatory underpinnings of organic agriculture as they pertain to pest management, 2) provide students with baseline knowledge of the three major pest management disciplines (Entomology, Plant Pathology, Weed Science), and 3) help students develop an ecological and economic understanding of pest management programs. The course consists of a combination of lecture, discussion, and laboratory activities and is led by Dr. Grieshop with guest lectures on specific topics. Course prerequisites are Junior, Senior, or Graduate standing or consent of the instructor.

COURSE INSTRUCTOR: Dr. Matt Grieshop
205 Center for Integrated Plant Systems
517.432.8034
www.opm.msu.edu/?cat=9
grieshop@msu.edu

TEACHING ASSISTANT: Jesse Sadowsky
sadowsky@msu.edu

COURSE FORMAT
The course meets three times per week and consists of a combination of lectures, laboratory exercises, student and guest led discussions and an individual project/presentation. The course is divided into three units: Organic Agriculture and Pest Management Disciplines, Ecological and Economic basis for pest management, and Synthesis/Special Topics. Students will be evaluated through a series of three exams, three laboratory reports, one to two student led discussions, and the final project.

COURSE CREDIT: 3 Credit Hours
TIMES: M,W 1:50-2:40PM, F 3:00-4:50PM
OFFICE HOURS: M 10-11AM, W 3-4PM
READING LIST
Readings will be drawn from textbooks and primary literature. Students can expect between 50 and 100 pages of reading per week.

Partial Reading List:
Selected chapters from:
CRC Press. Boca Raton FL.

COURSE WEBPAGE/BLOG:
Course lectures, assignments, schedules, and other printed course materials will be made available on the course webpage: www.opm.msu.edu/?cat=9. Materials will be posted within 2 class periods of distribution in class. Comments are supported but require either a password or administrator approval.

GRADING RUBRIC (90%-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; <60 = F)
Exams (33% of the course grade)
Exams will be cumulative but focus on the unit directly preceding them. Exams will contain a combination of multiple choice, short answer, and essay questions.
Student Led Discussions (12% of the course grade)
Students will be responsible to co-facilitate one to two discussions. For each discussion three or more papers will be assigned to the class. Facilitators will provide a printed talking point list as well as five questions for class discussion.
Laboratory Reports (30% of the course grade)
There will be three laboratory exercises, each worth 10% of the total course grade. Lab reports will be due ten days after the completion of the in class portion. Should a lab be cancelled, its percentage of the grade will be distributed among remaining labs.
Individual Project (25% of the course grade)
Each student will complete a project highlighting some aspect of organic pest management. This could be (but is not limited to): pest management for a specific agroecosystem, a particular pest management strategy or tactic, or a pest management topic relating to graduate student research. Students will present a proposed topic during the first portion of the second course unit, this will consist of a brief presentation (5 minutes) and a one page handout/visual aid (5% of total grade). During the final weeks of the course students will present a 15 minute presentation on the agroecosystem and turn in a written report (10% and 10% of total grade, respectively). A rough draft of the final report will be required prior to final submission.
COURSE OVERVIEW (SUBJECT TO CHANGE):

UNIT ONE: Organic Agriculture and Pest Management Disciplines (16 Periods)

9/2-9/18 Lectures: Agricultural history, Organic Movement Lab 1: Farm Tour, Discussion 1: Energy in agriculture

9/21-10/7 Lectures: Pest Management Disciplines Discussion 2: Organic vs. Sustainable Agriculture

9/25 Project Proposals

10/9 Exam I

UNIT TWO: Agroecology and Ecological Pest Management (16 Periods)

10/12-10/28 Lectures: Agroecology, Soils, Pest Ecology Lab 2: Insect Suppressant Soils

11/2-11/11 Lectures: IPM, Sampling, Phenology, Thresholds, Pest Management Lab 3: Allelopathic potential

11/13 Exam II

UNIT THREE: Synthesis/Special Topics (13 Periods)

11/16-11/30 Lectures: Organic Apples Case Study and TBA, Discussion 3: OPM and Thresholds, Discussion 4: Biodiversity and OPM.

12/2-12/9 Project: Student Presentations

12/11 Exam III and Written portion of projects due.

Final Used for additional student presentations if needed

ATTENDANCE/GRADING POLICY:

Students will be permitted to miss three class meetings with no academic penalties. Absences beyond these three will result in a 10% total course grade reduction per absence. Work and exam completion are due on assigned dates, late work/exams will be docked a penalty of 10% of the possible grade per calendar day late. Rescheduling of exams will depend on instructor availability. Attendance and late work policy may be waived/altered if previous arrangements are made with the instructor or under extraordinary circumstances.

ACADEMIC HONESTY AND INTEGRITY

We assume that the student is honest and that all course work and examinations represent the student's own work. Violations of the academic integrity policy such as cheating, plagiarism, selling course assignments or academic fraud are grounds for academic action and/or disciplinary sanction as described in the university’s student conduct code.

Incidents of plagiarism are taken very seriously and will be pursued. Students are strongly cautioned not to copy any text verbatim or use someone else’s ideas on class quizzes, tests, reports, projects, or other class assignments without using appropriate quotations and source citations.

For University regulations on academic dishonesty and plagiarism, refer to:

http://www.vps.msu.edu/SpLife/rule32.htm and
http://www.msu.edu/unit/ombud/plagiarism.html