Organic Food Crop Production
Syllabus
Department of Tropical Plant and Soil Science
University of Hawaii
FALL 2014

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Prerequisites: None
Required text: The Science and Technology of Organic Agriculture

Course Description and Objectives:
This lecture/laboratory is intended to provide a science- based overview of the ecological processes that are relied on in organic agricultural systems. Emphasis will be placed on management strategies for vegetable production. The general objectives of this course include:

1. Develop in students an understanding of certified organic agricultural systems, including the challenges associated with making them sustainable, and how they differ from other systems designed to improve agricultural sustainability.

2. Engage students in hands-on learning of strategies designed to maximize the efficacy of biological cycles within the farm and garden in order to optimize the economic, environmental and social sustainability of the food production system.

3. Facilitate the development of independent research, thought, and problem solving processes with regard to organic vegetable production.

Course Format (2 credits):
Monday: 12:30- 4:20. St. John 10, Magoon Research Facility (see map on last page). Field trips will leave from the Ewa end of St John Hall (Ag. Engineering side).

Each lab period will generally be initiated by an introductory lecture. The remaining period will be devoted to the students acquiring hands-on experience in organic vegetable production, experimentation, and field trips to better acquaint the students with commercial aspects of organic vegetable production.

Student reports and presentations:
Reports for each lab/field trip are due at the next lab period. Reports are expected to be approximately 1-page including detailed observations made. Five points each x 14 weeks = 70 points
Please see Laulima for lab report guidelines. Late assignments will be accepted at 90% credit for one week, and 50% if submitted after.
Homework:
Homework assignments will be distributed each week and are due the following week. 5 points each x 14 weeks = 70 points. Late assignments will be accepted at 90% credit for one week late, and 50% if submitted after.

Term Paper:
Each student will be responsible write a page review of a topic of the student’s choosing, subject to the instructor’s approval (approx. 10 pages).
The written portion of the report should follow the format below, unless otherwise cleared with the instructor:

   **Introduction**- Clearly introduces the subject, its importance and what the student plans to assert
   **Results and Discussion**- Summarize the information available and discuss what it means to the student.
   **Conclusion**- Clearly states the student’s conclusion and its implications.
   **References**- Consistently follows a conventional format and contains all the references cited in the paper and only those. They should be accurate and allow others to locate the reference. Students should cite at least 10 references and the majority of references should not be websites.

The student will also be responsible for a short (5 min maximum) oral presentation of their report to the class.

SOFT Work Days:
All students will be signed up for the SOFT student listserv unless a student specifies that s/he does not want to be subscribed. Student will be made aware of weekly work opportunities with SOFT. Students will be awarded 1.5 participation points per hour worked with SOFT outside of class, for a maximum of 5 points per week. These points will be added to your final point total. Hours worked will be certified by a SOFT student leader. For more info regarding SOFT, See:
http://www.ctahr.hawaii.edu/sustainag/soft/

Grading:
Grading is based on a combination of Homework (70 pts, 25%) field trip/lab reports (70 pts, 25%), Paper (110 pts, 40%) and presentation (30 pts, 10%).
A > 90 %
B > 80 % and < 90 %
C > 70 % and < 80 %
D > 60 % and < 70 %
F < 60 %
All students are expected to attend all lecture and labs.

**Tentative Schedule:**

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Topic</th>
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| 8/25    | Lec.: Housekeeping; Organic Systems Overview  
          Lab: Intro to Magoon Gardens |
| 9/1     | LABOR DAY |
| 9/8     | Lec.: Soil and Plant Health  
          Lab: Cover crop seeding & Transplant production |
| 9/15    | Field Trip (TA fert corn) |
| 9/22    | Lec.: Crop Nutrition and fertilizers  
          Lab: composting, fertilizer application, legumes, plant corn |
| 9/29    | Lecture: Pest control I  
          Lab: Scouting, pest ID and pesticide application |
| 10/6    | Lecture: Pest control II  
          Lab: Pest ID, weed management |
| 10/13   | Field trip |
| 10/17   | Field trip |
| 10/27   | Lec: Environmental influence on crop quality  
          Lab: Taste Testing |
| 11/3    | Field trip |
| 11/10   | Field trip |
| 11/17   | Lec: Economics  
          Lab: Cost of production spreadsheet |
| 11/24   | Field Trip |
| 12/1    | Lec: Grading and Data collection  
          Lab: Harvest |
| 12/8    | Lec: Food safety  
          Lab: Nutrition |
| 12/15   | 12-4:15PM --Individual student presentations and papers due |