Vegetable Crop Production
TPSS 401
Spring 2008

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Lectures: Wed. & Fri. 12:30-1:20 St. John Rm. 010A
Lab: Mon. 1:30-4:20 St. John Rm. 010A; Magoon Greenhouse facility

Course Goal: To develop in students an understanding of the biological, social and economic principles underlying successful vegetable production.

Text: No text is required for this course. Exam questions will be extracted from the lecture and assigned readings that will be provided.

Tentative Lecture Schedule:

January	16	Housekeeping and Introduction
	18	Vegetable definition and classification
	23	Origin, domestication and improvement of vegetables
	25	Importance of vegetables to the human diet
	30	Environmental factors influencing vegetable growth
February	1	Sustainability in agriculture
	6	Library skills
	8	Nutrient management
	13	Pest management
	15	Marketing and post-harvest handling
	20	EXAM I
	22	Potato
	27	Sweet potato
	29	Taro and other aroids
March	5	Cassava, plantain and breadfruit
	7	Sweet corn
	12	Tomato and pepper
	14	Eggplant and other *Solanum* fruit
	19	EXAM II; Draft literature review due (optional)
	21	Holiday
	26	Spring Break
	28	Spring Break
April	2	Lettuce and other *Asteraceae*
	4	Onions and other *Allium*

	9	*Cucurbitaceae*
	11	*Brassicaceae*
	16	Good Friday
	18	*Brassicaceae*
	23	Carrot and other *Apiaceae*
	25	Spinach, beets and other *Chenopodaceae*
	30	Other vegetables
May	2	Literature review due

Final Exam:
The final exam will be held Friday, May 16, 2008, 12:00-2:00 St. John 010A. The final exam will focus primarily on the material presented in lectures subsequent to exam II. However, additional material from previous lectures or labs may be presented.

Literature review:
Each student will be responsible writing a 5-10 page review of the current scientific literature on a topic of the student's choosing, subject to the instructor's approval. More than just a summary, the review should attempt to contribute to the field of weed science by presenting a novel synthesis of the literature pertaining to the topic of interest that will not be present in class. The review should consist of:
Introduction (15 points)- Clearly introduces the subject, its importance and what the author (you) plans to assert.
Background (15 points)- Presents a comprehensive but concise summary of the information available in the literature.
Synthesis (25 points)- Critically discusses the literature, builds to support your assertion while honestly addressing its weaknesses and identifies gaps in the literature that need to be addressed by future research.
Conclusion (5 points)- Clearly states what you conclude and the implications of your conclusion.
References (10 points)- Consistently follows an accepted journal format (e.g. Weed Science) and contains all the references cited in the paper and only those. It is not a bibliography. They should be accurate and allow others to locate the reference. **At least 5 of the references should be peer reviewed journal articles.**
Significant deviation from the above format should be pre-approved by the instructor.
Students will present brief (5-10 min) oral presentations of their literature reviews on the last day of lab.

Tentative Lab Schedule:

January	25	Seeding transplants
February	1	Irrigation installation and fertilizer application
	8	Field Day
	15	Weed Control
	22	Experimental design; Field trial planting
	29	Pesticide safety
March	7	Field day
	14	Field Trip
	21	Holiday: Good Friday
	28	Spring Break
April	4	Field Trip
	11	Field Trip
	18	Field Trip
	25	Experimental plot data collection
May	2	Data analysis
	9	Oral presentations of literature review, scientific report and lab notebooks due
	16	FINAL EXAM

Laboratory Notebooks:
Students are responsible for maintaining detailed, organized records of all activities associated with the laboratory, including field trips. Details should include date, times, cultivar and scientific names of plants observed, locations, presenters, methodologies employed, practices observed and personal insights. Notebooks should contain a table of contents and the pages should be numbered.

Grading System:

Description	**Points Available**
Exam I:	70 points
Exam II:	70 points
Final Exam:	70 points
Literature review:	95 points
Lab notebook:	50 points
Field trip reports:	80 points
Presentation:	40 points
Total	**480 points**

Point Range	Grade
570 - 513	A
514 - 456	B
455 - 399	C
398 - 342	D

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