FRUIT and VEGETABLE CROPS (PS 434)

COURSE DESCRIPTION:

- PS 434 is a 3 credit hour course
- Taught fall semesters
- Class periods meet from 10:10 to11:00, Wed. & Fri., in 113 PBB
- Laboratory periods meet from 10:10 to 12:05, Mon., in ____ .

INSTRUCTOR: Dr. Dennis Deyton

- Office: 262 Plant Biotech Building.
- Phone: 974-8822
- E-mail: deytond@utk.edu

- Office hours: No specific hours, I will be in the office most hours

COURSE OBJECTIVES:

Fruits and vegetables are essential to the human diet, providing sources of fiber, vitamins , and many medicinal compounds such as the anti-cancer compounds. The U.S. has long been a leader in fruit and vegetable technology and production. Much of the rest of the world is catching up to the U.S.

Objectives:

- To provide students with knowledge of the general botany of warm and cool season vegetables and temperate zone fruits.
- To provide students with knowledge of general cultural practices such as soil preparation, plant establishment, plant nutrient management, irrigation, cold damage protection, and controlled environment production, propagation, pruning , etc.).
- To acquaint the student with sources of information for future reference (ie. books., web sites, bulletins).

GRADES:

A. Points

Source	Points
Exam 1	200
Exam 2	200
Final Exam	200
Quizzes: -10 scheduled quizzes (20 pts ea.)	200
Report (Fruit or Vegetable) Written plant report Power Point Presentation	 50 50
Lab/ Homework Problems Garden Plan Fertility Calculation Harvest indices Lab Participation	 25 25 25 25
Total	**1000**

B. Grading Scale:

Grade	Points
A	900-1000
B+	850-899
B	800-849
C+	750-799
C	700-749
D	650-699
F	<650

Graduate students will be take a different exam than that given to undergraduates.

EXAMS:

- **There is NO extra credit.**
- No make-up exams or quizzes will be given unless a student has a valid excuse as recognized by the University. Such excuses are:
  - A death in the family
  - A medical illness of a severity that prevents a student from attending class
  - A University-sponsored activity or event that requires that a student miss class
  - All make-up exams or quizzes will differ from the regularly scheduled exam and the Instructor reserves the option of giving essay make-up exams or quizzes.

STUDENT REPORTS:

- Written report of a fruit or vegetable:
  - 4 to 6 double space pages. **(Submitted in hard and disk copy)**.
  - Include: Common, scientific name, closely related plants of importance
  - Include brief history in world and U.S. use
  - Botanical characteristics
  - Environmental limitations in plant growth
  - General Cultural requirements
  - Storage after harvest
- Oral Report
  - Report presented to class using computer media and PowerPoint or similar programs.
    - Also submitted as a disk copy.
  - Presentation should last for10-12 minutes.

HOMEWORK PROBLEM SETS: Homeworks are due on the specified dates to receive full credit. Late homeworks must be turned in no later than the beginning of the next scheduled class period (will receive a 25% reduction in grade).

ACADEMIC DISHONESTY:

Students found cheating or receiving unauthorized assistance will have their exams or papers confiscated at the time of the infraction; they will be subject to an "F" for the course, and the matter will be referred to the Office of Student Conduct for further action. Students should refer to Hilltopics for University policies and procedures.

DISABILITY STATEMENT:

If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact the Office of Disability Services at 191 Hoskins Library at 974-6087. This will ensure that you are properly registered for services.

Syllabus (Preliminary): **FALL, 2005**

Lab Dates	Class Dates	Class Topic	Exams
	Aug. 26	Introduction, Fruit & Veg. Industries	
Aug. 29		***Visit PS Garden***	
	Aug. 31	Environmental influences	
	Sept. 2	Site selection, Preparation	**Quiz 1**
Sept. 5		**Holiday** (No class)	------
	Sept. 7	Sustainable Production	
	Sept. 9	Organic production	**Quiz 2**
Sept. 12		***Farm Visit*** *(Vegetable Farm)*	
	Sept. 14	.Cold damage protection	
	Sept. 16	Controlled Environment Prod	**Quiz 3**
Sept. 19		***Seed propagation lab***	
	Sept. 21	Solanaceae Crops	
	Sept. 23	**Exam 1**	**Exam 1**
Sept. 26		***Botanical lab***	
	Sept. 28	Solanaceae Crops (cont.)	
	Sept. 30	Legumes (pulse crops)	**Quiz 4**
Oct. 3		***Farm Visit:*** *vineyard*	
	Oct 5	Brassicas/Greens	
	Oct. 7	Brassicas/Greens	**Quiz 5**
Oct. 10		***Planning a Garden***	
	Oct. 12	Corn, perennial crops	
	Oct. 14	**Fall Break**	
Oct. 17		***Asexual propagation lab*** (budding and grafting)	Garden plan due
	Oct. 19	Cucurbit	
	Oct. 21	Cucurbit Crops(cont.)	**Quiz 6**
Oct. 24		***Fertility (w/ problem set)***	
	Oct. 26	Root, Tuber, Bulb Crops	**Quiz 7**
	Oct. 28	**Exam II**	**Exam II**
Oct. 31		***Pruning lab*** (@ Plant Science farm)	Fertility prob set due
	Nov. 2	Training & Pruning	
	Nov. 4	Pome fruits	**Quiz 8**
Nov. 7		***Hydroponics***	
	Nov. 9	Stone fruit	
	Nov. 11	Brambles	**Quiz 9**
Nov. 14		***Harvest indices/storage***	
	Nov. 16	Strawberries	**Written project report due**
	Nov. 18	Grapes	**Quiz 10**
Nov. 21		***Student Oral Reports***	Harvest indices report due
	Nov. 23	Bush Fruit	
	Nov. 25	**Thanksgiving Holiday**	
Nov. 28		***Student Oral Reports***	
	Nov. 30	Nuts	
	Dec. 2	Minor fruits	

Dec. 4		***TBA***	
Dec. 15 8:00-10:00		**Final Exam (III)**	

* Field trips will be changed if rain is probable.

References (Text not required):

Vegetables:

Swiader, J.M., G.W. Ware, and J.P. McCollum. 2002. Producing Vegetable Crops.
Interstate Publishers. Danville, Illinois.

Fruits:

Childers, N.F. J.R. Morris, G.S. Sibbet. 1995. Modern Fruit Science. Horticultural Publications. Gainesville, Florida. ($30)

Lewis and Elvin-Lewis. 1977. Medical Botany: plants affecting man's health. John Wiley and Sons, NY.