

# PLSC 250 SYLLABUS (draft 8 Jan 2020)

(Syllabus is a guide and subject to change during the semester)

**Course Title:** World Food and Fiber Plant Production (PLSC 250)



## Course Information:

- PS 250 is a 3 credit hour course, a GenEd course in Natural Sciences
- Taught spring semester, annually
- Class periods meet from 9:05 - 9:55, Mon. Wed. & Fri., in 113 Plant Biotechnology Building

## Course Description:

Introduction to important world crops and production systems. Emphasis on plant terminology, origin, distribution and use, world agro-ecosystems, environmental and economic sustainability, current technology in crop production



Fig. 1 World Agricultural

## Instructors:

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**Teaching Assistant:** Hank Mary ([hmary@vols.utk.edu](mailto:hmary@vols.utk.edu))

**Course Objectives:** Upon completion of this course, students should:

- Be able to describe plant terminology, the characteristics of major food and fiber plants, general production practices, and major areas of production.
- Be able to explain how climate, land, water, and social settings interact to determine food production systems, through study of major agroecosystems of the world.
- Have knowledge of how the primacy of the need to produce adequate food has affected societies and cultural traditions, and how technological changes have altered this relationship.
- Understand and be able to explain sustainability issues in food production systems, including water and air pollution, depletion of nonrenewable inputs and land degradation.

**Technology use in the Course:** Students will need access to a word processor, email, and the internet for this course. Course material will be posted on Canvas. Lectures will often be posted in outline form (to encourage note taking). Please ensure that your UT email address is active because we update students using email. Microsoft Word is the preferred word processor. You will need Adobe Acrobat to view some documents.

**Text:** A recommended textbook (not required) is Plant Science Growth, Development, and Utilization of Cultivated Plants, 5<sup>th</sup> edition, by Margaret McMahon, Anton Kofranek, and Vincent Rubatzky. Two copies are being placed on reserve in the Pendergrass (Ag) Library.

**Disability Services:** “Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services (ODS) at 865-974-6087 in 2227 Dunford Hall to document their eligibility for services. ODS will work with students and faculty to coordinate reasonable accommodations for students with documented disabilities.”

**Academic Standards of Conduct:** Students are reminded of the UT Academic Integrity Statement:  
 “An essential feature of the University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.” Each paper, report, review or similar written assignment needs to be original work. Other course materials are not acceptable because each course has different course objectives and learner outcomes.

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

**Classroom/Student Conduct:** Smart phones will be turned off and remain in backpacks or purses during exams. Use calculators and not smart phones during exams. Laptop computers may be used during class lecture for items directly related to the course.

**Grading Scale:** Instructors may adjust these ranges downward at their discretion.

Grade	%	Grade	%
A	93 to 100	C	73 to 77
A-	90 to 93	C-	70 to 73
B+	87 to 90	D+	67 to 70
B	83 to 87	D	63 to 67
B-	80 to 83	D-	60 to 63
C+	77 to 80	F	<60

**Grades:**

Source	Potential Points
<b>Regular semester exams</b> <ul style="list-style-type: none"> <li>• 3 exams, dropping grade of lowest exam. (150 points/exam)</li> </ul>	300
<b>Quizzes</b> <ul style="list-style-type: none"> <li>• 11 quizzes, dropping grade of lowest quiz (10 points/quiz). Hand-written notes may be used (no sharing).</li> </ul>	100
<b>Case study (1 Report + Presentation)</b> <ul style="list-style-type: none"> <li>• 1 required (75 + 25 pts each)</li> </ul>	100
<b>Final Exam (Cumulative)</b>	150
<b>Total</b>	<b>650 points</b>

**Exams and quizzes:**

- Exams and quizzes cover material presented in class and reading assignments.
- Including the final exam, there are 4 exams. The lowest exam grade, including a missed exam, (excluding the final exam) will be dropped.
- The lowest quiz score, including a missed quiz, will be dropped.
- Handwritten notes may be used for the quizzes. No note-sharing is allowed.
- Make-up exams may differ from the regularly scheduled exam, and the Instructor reserves the option of giving make-up exams which may differ from those given as scheduled.
- No make-up exams or quizzes will be given unless a student has a valid excuse as recognized by the University. Examples of the level of 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.

### Writing Assignment (Case study).

The case study for this class is a descriptive or exploratory analysis of a system

- Each student will do in depth investigation of food and fiber production system of a given country.
- Students may use the web, publications and books.
- Each student will give a brief presentation (3 minutes) on case study findings (time TBD).
- Please limit case study to 3-4 pages including introduction, major findings (major staple crops, vegetable and food production system, export and import) and challenges in crop production and your suggestions).
- Your name as submitter of the case study should be at the top of your case study.
- Submit report to Canvas in Microsoft “Word” format (**doc or docx** only), 12 point, Times New Roman, 1-inch margins.
- Submit your file with your last name as the first word in the file name (helps us keep them organized).
- **Presentation Scoring =25 pts and case study report 75 pts**
- **Scoring Rubric.** Point values in between those shown may be given.

Rubric categories (points)
<b>Followed Instructions</b> -Very few (3 pts)   Most (5 pts)   All (10 pts)
<b>Identified main points</b> - Not at all (0 pts)   Half (15 pts)   Most or all (30 pts)
<b>Use of current data, graphs</b> - None (0 pts)   Superficial (10 pts)   Incisive/in-depth (20 pts)
<b>Challenges and issues identified</b> - None (0 pts)   One to few (5 pts)   Most identified (10 pts)
<b>Suggestions</b> - Not at all (0 pts)   Given (5 pts)
<b>Presentation inc. grammar + organization</b> - Below college-level (0 pts)   Fair (15 pts)   Excellent (25pts)
Total points=100

### Some key resources for students:

- **Hilltopics:** <http://dos.utk.edu/hilltopics> (Campus and academic policies, procedures and standards of conduct)
- **The Writing Center:** <http://writingcenter.utk.edu/> (Trained tutors (graduate students and lecturers) read and discuss student writing in one-to-one conversations and offer constructive feedback)
- **Library:** <http://www.lib.utk.edu> (Access to library resources, databases, course reserves, and services)
- **Pendergrass Agriculture and Veterinary Medicine Library:** <http://www.lib.utk.edu/agvet/>
- **Student Success Center:** <http://studentsuccess.utk.edu> (Academic support resources)
- **Undergraduate Catalogs:** <http://catalog.utk.edu> (Listing of academic programs, courses, and policies)
- **Academic Planning:** <http://www.utk.edu/advising> (Advising resources, course requirements, and major guides)
- **Career Services:** <http://career.utk.edu> (Career counseling and resources; HIRE-A-VOL job search system)

**PLSC 250 World Food and Fiber Crops, Spring 2020 (Draft 9 Jan 2020)**

Class periods meet from 9:05 - 9:55, Mon. Wed. & Fri., in 113 PBB

No.	Date	Lecture Topic	Activity	Textbook- 5 <sup>th</sup> Ed.	Lecturer
1.	Jan. 8	Introduction to course/ Crop Origin		pg. 205-210	Stier/Shrestha
2.	Jan. 10	Soils Overview		Chpt. 5	Stier
3.	Jan. 13	Plant Classification, Structure		pg. 197-207, 78	Shrestha
4.	Jan. 15	Soil Fertility & Water	Quiz 1	Chpt. 12, 13, 14	Stier
5.	Jan. 17	Intro. Agroecosystems; Humid Temperate Agroecosystems		Chpt. 2 & 4	Stier
	Jan. 20	<b>MLK HOLIDAY-No Class</b>			
6.	Jan. 22	Subhumid/Semiarid Temperate Agroecosystems			Stier
7.	Jan. 24	Mediterranean Agroecosystems	Quiz 2		Stier
8.	Jan 27	Plant Breeding/Biotechnology Overview			<b>Piya*</b>
9.	Jan. 29	Plasticulture, Protected Culture			<b>Sams*</b>
10.	Jan. 31	<b>Tropical and Arid Agroecosystems</b>		Chpt. 21	Stier
11.	Feb. 3	<b>Annual Crop Production Systems</b>	Quiz 3	pg. 366-376	Stier
12.	Feb. 5	Soil-borne Vegetables		Chpt. 19 Vegetable Production	Shrestha
	<b>Feb. 7</b>	-----	<b>Exam 1</b>		Shrestha
13.	Feb. 10	Fruiting Vegetables (solanaceous, legumes)			Shrestha
14.	Feb. 12	Fruiting Vegetables (cucurbits, others)			Shrestha
15.	Feb. 14	Leafy Vegetables	Quiz 4		Shrestha
16.	Feb. 17	Tree Fruit Cultural Practices		Chpt. 20 Temperate Fruit and Nut Crops	Shrestha
17.	Feb. 19	Temperate Fruit Crops			Shrestha
18.	Feb. 21	Temperate Fruit Crops, cont.			Shrestha
19.	Feb. 24	Nut Crops	Quiz 5		Shrestha
20.	Feb. 26	Subtropical Fruit crops		pg. 501-514	Shrestha
21.	Feb. 28	Tropical Fruit crops			Shrestha
	Mar. 2	<b>Case study presentation</b>	Quiz 6		Stier/Shrestha
	Mar. 4	<b>Case study presentation</b>			Stier/Shrestha
	<b>Mar. 6</b>	-----	<b>Exam 2</b>	pg. 158-167	Shrestha
22.	Mar. 9	Organic/Sustainable Practices		pg. 344-345	<b>Butler*</b>
23.	Mar. 11	Oil seed, Introduction and Oil Palm	Quiz 7	pg. 387-391	Stier
24.	Mar. 13	Cotton, Flax and Hemp		pg. 391-394	Stier
	Mar. 16-22	<b>SPRING BREAK-No Class</b>			
25.	Mar 23	Rice		pg. 212-213; 381-383	Stier
26.	Mar. 25	Wheat	Quiz 8	pg. 211 & 386	<b>West*</b>
27.	Mar. 27	Maize		pg. 211-212 & 379-380	<b>West*</b>
28.	Mar. 30	Soybean		pg. 213 & 390	<b>Pantalone*</b>
29.	Apr. 1	Olives, Peanuts	Quiz 9	p. 389	Stier
30.	Apr. 3	Rapeseed (Canola) and Sunflower			Stier
31.	Apr. 6	Grain Sorghum and Millets	Quiz 10	pg. 383-385	Stier
32.	Apr. 8	Forages		Chpt. 18	Stier
	Apr. 10	<b>Spring Recess 2020</b>			
33.	Apr 13	South and Central American Production			<b>R. Nave*</b>
	<b>Apr. 15</b>	-----	<b>Exam 3</b>		Shrestha
34.	Apr. 17	Sugar Cane, Sugar Beets		pg. 384-385	Stier
35.	Apr. 20	Technological Change on Crop Production	Quiz 11	pg. 9-15 & Chpt. 3	Stier
36.	Apr. 22	African Production			<b>F. Walker*</b>
37.	Apr. 24	Future of Agriculture: Issues of Population, Cropland Adequacy, Water, Land Degradation, Climate Change			Stier
	<b>Apr. 29</b>	<b>Final Exam</b>	<b>Final</b>		US