

BIOL 3342
PLANTS & PEOPLE

Lecturer: Dr. Michael L. Moody
Office Hours: Wed 2-3
Office: Biology B306
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COURSE MEETING AND LOCATION:

LECTURE: MW 10:30 – 11:50, LART 207

TEXTBOOKS (REQUIRED):

- Levetin, Estelle and Karen McMahon. 2016. *Plants and Society, 7th edition.*
- Pollan, M. 2001. *The Botany Of Desire: A Plant's Eye View Of The World.* Random House, New York.

COURSE OBJECTIVES:

- understand the role plants have played in the development and stability of human cultures
- understand the basics of plant diversity
- understand basic plant morphology, anatomy, and growth
- know the major vegetable, fruit, herb, and spice plants
- understand concepts and techniques of plant breeding and genetic engineering
- know the uses of wood and fiber plants and plant extracts
- learn the historical and present uses of medicinal and euphoric plants
- know how southwest cultures utilized plants (including most topics above)

GRADING:

iClicker, Quizzes, assignments	20%	drop 3 iClicker, drop 1 quiz
Exam 1	15%	Wed. Feb. 19
Exam 2	15%	Wed. Mar. 25
Reading Assignments (2)	15%	Pollan - due dates TBA
Botanical Review Presentation	15%	Topic Feb. 7; other dates TBA
Final Exam	20%	Fri. May 15, 10-12:00

OTHER IMPORTANT DATES:

Spring Break – March 16-20

Last lecture: May 6

Finals week: May 11-15

DROP DEADLINE: April 3

POLICY ON MAKE-UP EXAMINATIONS: No make-up exams will be given for reasons other than illness (doctor's note required), absence with the instructor's prior approval, or when a student is on official University business (documentation required). Make-up exams will be scheduled at the Instructor's convenience.

POLICY ON ACADEMIC HONESTY: Academic Dishonesty will not be tolerated. It includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. If you have any questions regarding the university policy on scholastic dishonesty please contact the Dean of Students.

POLICY ON ELECTRONIC DEVICES: Be courteous to your fellow students and lecturer. Turn off any cell phones, smart phones, Blackberries, etc. during lecture. You cannot text, surf the internet, watch movies, listen to music, etc. in class.

ATTENDANCE POLICY: Regular attendance will be necessary for success in this class.

POLICY ON DISRUPTIVE BEHAVIOR: Any student who disrupts the class will be asked to leave and will be referred to the Dean of Students.

DISABILITY STATEMENT: If a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at dss@utep.edu or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.

MILITARY STATEMENT: If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact me at the beginning of the semester.

THE BOTANICAL REVIEW PRESENTATION:

A botanical review presentation is required of all students. An outline will be due several weeks prior to the final due date (details will be provided). The purpose of the outline is to allow the students and me to make corrections and suggestions on the format and content, of the presentation. **The outline will be 10% of the grade.**

All literature sources should be properly cited in the presentation and presented and formatted in the final slide. Primary sources of information include books and the journal *Economic Botany* or *American Journal of Botany* (and references cited therein), but many other scientific journals may be used. Only cite and use articles that are pertinent to your topic, not just those that happen to cover some aspect of your plant species. Web sources may not be used as primary sources of information.

7+ primary literature sources are required.

The review should be a summary of a plant of economic or cultural value to humans, **emphasizing the biology (taxonomy, life history, morphology/anatomy)** of the plant and discussing **economic and historical significance**. These plants can be foods, ornamentals, medicinal, ritualistic, etc.

Some potential plants: Artichoke (*Cynara scolymus*), Avocado (*Persea americana*), Banana (*Musa* spp.), Barley (*Hordeum vulgare*), Bean (*Phaseolus vulgaris*), Breadfruit (*Artocarpus altilis*), Cabbage (*Brassica oleracea*), Bell Pepper (*Capsicum* spp.), Cashew (*Anacardium occidentale*), Cassava (*Manihot esculenta*), Cocoa (*Theobroma cacao*), Coconut (*Cocos nucifera*), Coffee (*Coffea arabica*), Cotton (*Gossypium* spp.), Date (*Phoenix dactylifera*), Echinacea (*Echinacea* sp.), Fig (*Ficus carica*), Ginkgo biloba (*Ginkgo biloba*), Goldenseal (*Hydrastis canadensis*), Grape (*Vitis* spp.), Oat (*Avena sativa*), Olive (*Olea europaea*), Onion (*Allium cepa*), Orange (*Citrus aurantium*), Peanut (*Arachis hypogaea*), Pepper (*Piper nigrum*), Pineapple (*Ananas comosus*), Pomegranate (*Punica granatum*), Opium Poppy (*Papaver somniferum*), Rye (*Secale cereale*), Sugar Cane (*Saccharum officinarum*), Taro (*Calocasia esculentum*), Tea (*Camellia sinensis*), Tomato (*Lycopersicon esculentum*), Tobacco (*Nicotianum tabacum*). + many, many more.

Not: Apple, Marijuana, Tulip, Potato (will be covered in “Botany of Desire” readings, lectures)

Other general topics can be approved if you have a particular interest in some topic within plants. e.g. Plants that have a specific chemical, serve a specific purpose, etc. Special permission will be required and a clear justification of pursuing the topic.

Topics can't be repeated. **First come, first serve on topics.** Email me when you have made your choice and the time and date will denote pecking order if someone else chooses the same topic. Topic must be submitted by **Friday, February 7**. Presentations will be **10 minutes** using a Power Point format. Students will be given a handout explaining how their presentation will be assessed. **All topics will be covered on the final exam and powerpoints won't be available.** It is important that you attend these sessions which will cover five lecture periods.

Plants & People (BIOL 3342)
(Open to Revision)

Week	Topic	Text Chapters
Jan 22	Intro to plants and people	
Jan 27-29	Plant anatomy and morphology - the basics Basic plant Physiology – How do plants function?	Ch. 3 Ch. 4
Feb 3-5	Flowering Plant Organs - fruits Plant systematics, diversity – how do you recognize plants?	Ch. 5 & 6 Ch. 8 & 9
Feb 10-12	Plant families we can't live without 1. Grasses 2. Legumes	Ch. 12 Ch. 13
Feb 17-19	More families - plant parts and nutrients/review EXAM 1, Wed, Feb. 19	Ch. 10 & 14
Feb 24-26	You are what you eat The beginning of Agriculture (How, Why, When, Where)	Ch. 14 Ch. 11
Mar 2-4	Green Revolution & Green Genes Sustainable Agriculture	Ch. 15
Mar 9-11	Herbs, spices, sugar – World exploration and war Stimulating beverages	Ch. 17 Ch. 16
Mar 16-20	Spring Break	
Mar 23-25	Putting up walls – wood & ties that bind – review EXAM 2, Wed. Mar. 25	Ch. 18
Mar 30-Apr 1	The Herbalists - medicinal plants Psychoactive plant extracts	Ch. 19 Ch. 20
Apr 6-8	Poisons and allergies Living off the Land (using indigenous plants)	Ch. 21 Supplemental
Apr 13-15	Plants and the Environment To Save a Wilderness – (Leopold, Muir, Thoreau)	Ch. 26 Supplemental
Apr 20-22	Presentations	
Apr 27-29	Presentations	
May 4-6	Presentations & Review	