

Syllabus for UGS 302 (#63425)
HIDDEN TREASURES OF PLANTS: fuel, food, meds, money
Spring 2012

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		MWF 1-2 PM, or by appt.	MWF 9-10 AM, or by appt.

Class meeting time and place: TTh 2:00-3:30 PM; MAI 220D

PROPOSED COURSE SCHEDULE §

DATE	TOPIC
Jan. 17	Course introduction (SR)
19	Algae, obscure “plants” with big possibilities (JB)
24	Plants as climate changers (SR)
26	Library tools* (<u>Meet in PCL 1.339</u>)
31	Plants as medicines & pharmaceuticals (SR)
Feb. 2	Plants as medicines & pharmaceuticals (JWL) (<i>Writing assignment #1 due</i>)
7	Plants as Biofuels-Peak oil (SR)
9	Test
14	Plants as structural material (SR)
16	Plants as poisons (JWL)
21	Plants as models to reveal diverse modes of sensing (SR)
23	Plants as hallucinogens (JWL) (<i>Writing assignment #2 due</i>)
28	Plants as models to reveal diverse modes of communicating (SR)
Mar. 1	Plants as dyes (JWL)
6	Plant economics; Plants as entrepreneurial opportunities (SR)
8	Virtual tour of National Wildflower Center
20	Plants as nutrition (SR)
22	Plants as nutrition (SR)
27	History of Useful Wild Plants project; Field trip (SR)
29	Plants as perfumes & soaps (JWL) (<i>Writing assignment #3 due</i>)
Apr 3 to May 1**	Student presentations [2 each class; topics selected by presenters]
May 5	New insights on plant treasures; Course evaluation; party
<u>11</u>	Final Exam

§Can be modified by input from students. Initials of the professor for each lecture are given in parentheses.

*The URL for library help is: <http://www.lib.utexas.edu/students/>

This resource will be extremely valuable for the writing assignments.

**JWL on April 5, 12

TEXT on library reserve: *Useful Wild Plants of Texas. Volumes 1, 2 and 3* (Cheatham, Johnston, & Marshall)

Other Reading Assignments will be handouts, or articles kept on reserve in the Life Science Library.

GRADING: Overall: Writing = 40%; Speaking/discussing/attending = 40%; Testing = 20%; No +/-

Writing assignments: Three 3 pg. papers; total worth 20%; final research paper (8-10 pgs): 20%. Students will be asked to revise each of the 3-pg. papers. Final grade given will reflect both the original and revised versions. (See details below).

Oral presentation: 20%; **Discussing, attending:** 20%. Unexcused absences will reduce attendance grade. For their oral presentation, students will choose a topic related to native or cultivated plants that most interests them.

Course lectures, discussions and textbook should provide ample material to choose from. Presentations will be 20-30 min, followed by ~10 min discussion, using PowerPoint for visuals.

Tests: The test on Feb. 9 will be short essay style, and it will emphasize discussion of the main themes of the course material rather than regurgitation of facts. It will afford students an opportunity to express their insights on class topics extemporaneously and in a clear and concise fashion. The final on May 11 will be an oral exam based on the final research paper turned in. Each of the two tests will be worth 10% of the final grade.

Course Description

Course Aim: The course aims to enable you to develop your writing and speaking skills while learning fascinating information about the diverse valuable uses of wild and cultivated plants.

Course Content:

Plants have been used as treasures by civilizations for eons, but this course will focus on surprising, undervalued treasures of plants in today's world, including their increasing use as biofuels, their little-known value as wild sources of food and medicines, and their potential as money makers for entrepreneurs. The course will also explore how animal-like features of plants, such as communication with animals and the ability to anticipate future events reveal the value of plants for understanding the evolution of complex sensing and response systems in living organisms.

The course will use as its primary literature resource the renowned set of volumes called *The Useful Wild Plants of Texas*, which thus far has covered over 500 native species, most of which grow throughout not only Texas and the Southwest, but in many other regions of the U.S. and Mexico. These volumes include a bibliography of numerous other related references. The text for the course will be Volumes 1, 2 and 3 of the series, which will all be on reserve in the Life Science Library, so they do not have to be purchased.

The text and handouts should help you advance your ability to read and understand scientific writing. The course has substantial writing assignments, so it should help you improve your writing skills. Because the course will encourage active participation in the informal discussions that will characterize every class, and because every student will give a presentation on a topic that interests them, the course should also promote fluency in expressing ideas in speech.

Native and cultivated plants enrich our lives in a dazzling diversity of ways. This is the take-home message of the course--one that should both inspire and be enjoyable to learn.

Reference Texts: Volumes 1, 2, and 3 of the *Useful Wild Plants of Texas*

- Highly praised (see reviews)
- Still under construction (Volume 4 will go to the printer next year)
- Authors will conduct March 27 field trip and a tour of research and publishing headquarters
- Your final paper will research potential new entries in future volumes

Class Discussions: Each class period will focus on one valuable use of wild and cultivated plants. Starting Jan. 24, about half of each class will consist of students discussing a plant or reading that exemplifies the topic featured in the lecture given that day. The resource for this discussion can be information found in Volumes 1, 2, or 3 or any other scientifically credible reference. All students will be asked to "teach" for ca. 2 min. on the topic for that day. For nine of the classes a team of two students will be asked to give a 10 min powerpoint presentation highlighting information relevant to that class. Thus every student will participate in one of these short presentations during the semester.

Oral presentations: Help in preparing either your short 10 min. talk or your longer 25 min. presentation will be gladly given by Drs. La Claire, or Roux. You should plan to meet with one of them to get that help.

Writing assignments

1. This course carries the Writing Flag, and so is designed to give you experience with writing in an academic discipline. Three 3-pg papers are assigned. The first one will be due February 2, and its topic will be: Your starting point in this course. That is, what did you know about the value of plants before the course, and what documentation can you provide to support what you knew about plant values. The next two papers will be due on February 23 and March 29 and your assignment for each of these will be to elaborate on one "use" of a wild or cultivated plant in a way that does not simply repeat information already described in Volume 1, 2, or 3 of the *Useful Wild Plants of Texas*. In addition to documenting a valuable use of the plant, the paper should include a picture of the plant and some information on its distribution, and its findings should be supported by at least two primary references (not web pages) published between 2002 and 2012. Papers will be read and critiqued and returned with comments. A revised version of the paper will be due one week after they are returned, and the professor who read the first version of your paper will evaluate the quality of the revision, and will consider both versions of equal value in determining the final grade for the paper.

2. A final 8-10-page paper on a useful wild plant you select that is not described in the *Useful Wild Plants of Texas* volumes will be due May 5. You will schedule a 15 min meeting with Dr. Roux who will have read your paper to discuss the paper during the scheduled Final Exam period on May 11. Final grade for the paper will depend both on quality of the paper and quality of your discussion of it.

Writing assignments should be turned in as Microsoft Word files attached to an email addressed to Dr. Roux. Format instructions and other requirements for papers will be described in a handout on Jan. 24.

NOTE on Plagiarism: If you use words or ideas that are not your own you must cite your sources. Otherwise you will be guilty of plagiarism. We will discuss this important topic briefly in class on January 24. Before this discussion please read the web text from the Student Judicial Services, which investigates charges of plagiarism: http://deanofstudents.utexas.edu/sjs/acint_student.php

Writing Center

I strongly encourage you to use the Undergraduate Writing Center, FAC 211, 471-6222; <http://uwc.utexas.edu/home>. The Undergraduate Writing Center offers free, individualized, expert help with writing for any UT undergraduate, by appointment or on a drop-in basis. Undergraduates enrolled in a course at UT can visit the UWC for assistance with any writing project, both academic and non-academic. Whether you are writing a lab report, a resume, a term paper, a statement for an application, or your own poetry, UWC consultants will be happy to work with you. Their services are not just for writing with "problems." Getting feedback from an informed audience is a normal part of a successful writing project. Consultants help students develop strategies to improve their writing. The assistance they provide is intended to foster independence. Each student determines how to use the consultant's advice. The consultants are trained to help you work on your writing in ways that preserve the integrity of your work.

Other important notes:

1. You will be expected to attend one of the University lectures, and discuss it in class. Information on the lectures is available at: <http://www.utexas.edu/ugs/uls>
2. Religious holidays. University policy is to respect religious holidays.
3. Cell phones and computers. Plan to turn off your cell phones and computers during class, but it will be useful to take hand-written notes. If we observe you using your phone/computer during class, you will be marked absent and asked to leave for the remainder of that class.