

# SUL ROSS STATE UNIVERSITY

## PLANTS AND PEOPLE (BIOL 2405 – 001 and BIOL 2405 – L01) Syllabus for Spring 2016

**Instructor:** Dr. Martin Terry  
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**Email:** [mterry@sulross.edu](mailto:mterry@sulross.edu) (Please use “Plants & People” as subject of email.)  
**Office Hours:** M 3:00-5:00, W 2:00-5:00, or by appointment. If you feel lucky, drop in at random. If I am in the office, you are welcome.

**Time and Place:** **Lecture:** MWF 8:00-8:50. WSB 204  
**Lab:** T 1:00-2:50. WSB 204.

**Required Textbook:** Simpson BB and Ogorzaly MC. 2014. *Economic Botany: Plants in Our World*. McGraw-Hill, 4<sup>th</sup> edition. Please bring your textbook to every lecture and lab.

**Learning objectives:**

- \* Recognize the varied uses of plants in human affairs.
- \* Relate the geographic origins of useful plants to their current geographic distributions.
- \* Analyze tendencies of particular types of useful materials to occur in specific families of plants.
- \* Develop a command of scientific names and common names of useful plants, and distinguish the strengths and weaknesses of these very different types of nomenclature.
- \* Describe key processes used to convert raw plant material to more useful forms (e.g., the processes involved in converting the seeds of wheat plants into baked bread).
- \* Understand the relationship between toxic and therapeutic effects of medicinal plants.
- \* Compare and contrast attitudes toward “sacred” plants in different societies.
- \* Visit the Sul Ross herbarium, and discover how it works as a source of botanical information.
- \* Create a properly documented scientific paper about some aspect of a useful plant of your choice.

**Attendance and grades:** Attendance in class is required, and students will be dropped with an F for excessive absences, defined as absences that exceed 20% of the course (i.e., 9 lectures or 3 labs in this course). If you must be absent from lecture or lab, please inform the instructor IN ADVANCE if possible. Make-up exams will **not** be given in lecture or lab. In the case where a student has missed one hour exam for an acceptable reason, the grade of zero for that exam will be dropped, and the lower of the two other hour exam grades will be substituted for the zero.

### Point distribution:

Lecture Exams =	300	50%
Lab Grade =	100	16.7%
Term paper =	50	8.3%
Final exam =	150	25%
Total =	<u>600</u>	<u>100%</u>

## TENTATIVE LECTURE SCHEDULE AND TOPICS

<u>DATE</u>	<u>TOPIC</u>	<u>CHAPTER</u>	<u>PAGES</u>
JAN 20	Introduction	--	--
JAN 22	Review of fundamental botanical concepts	1	1-12
JAN 25	Plant morphology & physiology	1	12-20
JAN 27	Manipulation of plants by humans	1	21-32
JAN 29	Species, nomenclature & taxonomy	1	32-39
FEB 1	Origins of agriculture	2	40-52
FEB 3	Fruits & nuts (temperate regions)	3	53-74
FEB 5	Fruits & nuts (tropical & subtropical regions)	4	75-106
FEB 8	Grasses: cereal grains & forage crops	5	107-135
FEB 10	Legumes	6	137-154
FEB 12	Foods from leaves, stems, roots, etc	7	155-174
FEB 15	Foods from leaves, stems, roots, etc	7	174-191
FEB 17	<b>EXAM 1</b>		
FEB 19	Spices, herbs & perfumes	8	192-205
FEB 22	Spices, herbs & perfumes	8	206-217
FEB 24	Plant lipids: vegetable oils & waxes	9	218-242
FEB 26	Valuable Goo: exudates from plants	10	243-261
FEB 29	Medicines from plants; cultural conceptions of medicine	11	262-269
MAR 2	Medicinal plants, pharmacology, & dietary supplements	11	270-285
MAR 4	Ethnobotany and pharmaceutical development	--	handout --
MAR 7	Psychoactive drugs from plants and their regulation	12	286-296
MAR 9	Psychoactive drugs from plants and their regulation	12	296-310
MAR 11	<b>EXAM 2</b>		
MAR 14-18	<b>SPRING BREAK, NO CLASSES</b>		
MAR 21	Plant-derived poisons	12	310-312
MAR 23	Stimulating beverages and stimulant drugs	13	313-331
MAR 25	Stimulating beverages and stimulant drugs	13	313-331
MAR 28	Alcoholic beverages and alcohol as a drug	14	332-345
MAR 30	Alcoholic beverages and alcohol as a drug	14	345-354
APR 1	Fibers; <b>term paper topic due.</b>	15	355-372
APR 4	Dyes & tannins; guidelines for term paper	15	372-377
APR 6	Structural materials: wood, cork & bamboo	16	378-398
APR 8	Ornamental plants	17	399-413
APR 11	Ornamental plants	17	413-430
APR 13	Algae	18	431-443
APR 15	Algae	18	444-457
APR 18	Future uses of plants	19	458-478
APR 20	<b>EXAM 3</b>		
APR 22	Fungi: neither plants nor animals, but useful		
APR 25	Invasive species of plants and their economic impact		
APR 27	Invasive species of plants and their economic impact		
APR 29	Economically important plants of the Big Bend region		
MAY 2	Economically important plants of the Big Bend region		
MAY 4	Review; <b>term paper due.</b> Last day of class.		
MAY 9,	Monday: <b>FINAL EXAM</b> (comprehensive, required of all students): 8:00 a.m.-10:00 a.m.		

**DISABILITIES INFORMATION:** It is Sul Ross State University policy to provide reasonable accommodation to students with disabilities. Qualified students with disabilities needing academic or other accommodations to ensure full participation in the programs, services and activities at Sul Ross State University should contact the Disability Services Coordinator, phone 432-837-8203.