

**BSC 436 Plant Diversity and Conservation
Course Syllabus**

Monday 6:00 pm- 8:40 pm

Instructor: Jim Eidson, MS Rangeland Ecology and Management

Office hours: Monday 4:00 pm-6:00 pm STC 233

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Course Objectives

This course is a survey of concepts in plant community diversity, reserve design and conservation practice. Expected outcomes will be a basic familiarity with nomenclature, concepts and approaches to conservation of plant populations, communities and to some extent, ecological systems. Emphasis will be on grasslands though other habitats will be considered. The course will be primarily lecture with several local field trips (to be negotiated). The following course outline may be amended as opportunities arise.

Text Optional

Primack, Richard B. 2002. Essentials of Conservation Biology. Sinauer and Associates, Sunderland, MA. ISBN 0-87893-719-6

If you have not had a basic ecology course, this will be helpful. Selected chapters will be recommended. Handouts, lecture notes and assigned resources will be the basis for examination

Grades

Tests will be based on a combination of lecture notes, handouts and assigned reading. Grade will be based on: 1) Two tests and a final comprehensive examination (300 points) and 2) a preserve design project (200 points).

Graduate students will prepare and give a class presentation (100 points).

Expectations

Because BSC 436 meets once per week, a great deal of material will be covered each class session. **It will be impossible for you to perform well in this course without attending all classes.** However, if you must miss a class, you should exercise all due diligence to acquire lecture notes, handouts and related material. This is your responsibility. It is the responsibility of the student to inform me of any problems you may have affecting your performance in class, be it due to professionally diagnosed disability, personal or work-related problems, etc., so that appropriate adjustments can be made.

It should be obvious to all that distractions in the classroom are to be kept to a minimum. Please:

- No cell phones on
- No talking during lectures and presentations
- No headphones, disk players, etc.

However, you may use recording devices in the lecture – audio recorders are fine, but talk to me first about video.

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce,
Halladay Student Services Building,
Room 303A/D
(903) 886-5835. or (903) 886-5150

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Schedule of Classes

Class 1 8/29

Introduction to the class. And: The natural and cultural history of the Grand and Blackland Prairies. Changes in the ecosystem from the end of the Pleistocene to modern times. (optional: *Read Chapters 1 and 2*)

September 6, Labor Day Holiday Note please memorize Concepts and Vocabulary Sheet before next class date.

Class 2 9/12

Field Trip: Clymer Meadow Preserve, Celeste. Class will tour a Tallgrass Prairie Preserve and discuss relationship of soil, land use history and diversity. Car pooling is recommended. Early departure? (Optional: *Read Chapters 7, 8, 9, 11 and Chapter 12 sections on Population Viability Analysis and Metapopulation only*).

Class 3 9/19

Concepts and nomenclature in diversity. Reserve design concepts and terminology. (Large patch vs small patch, fragmentation, buffering, corridors, viability etc....)(Optional *Read Chapter 15, and 16*)

Class 4 9/26

Introduction to conservation planning methodologies (Threats assessments, conservation area planning, ecoregional planning)

Class 5 10/3
Measurements of plant community diversity. Introduction to diversity indices.

Field Trip: Saturday, Oct 1 or 8. 9am-3pm. This will be an introduction to your semester project sites.

Class 6 10/10
Exam on nomenclature, concepts and measurements

Class 7 10/17
Disturbance effects on diversity and richness
Read Chapter 17

Class 8 10/24
Edaphic effects on diversity and richness

Class 9 10/31
Bruce Hoagland—Natural Heritage Programs?

Class 10 11/7
Bill Carr—Rare plant species conservation in Texas?

Class 11 11/14
In-class workshop on Preserve Design projects

Class 12 11/21
Exam 2 on edaphic and disturbance effects, elements and terminology of natural heritage programs.

Class 13 11/28
Presentation of Preserve Design Projects

Class 14 12/5
Presentation of Preserve Design Projects, final review.

Class 16 12/12
Final Exam

“All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” See Student’s Guide Handbook, Policies and Procedures, Conduct.

Note: Plagiarism is a criminal activity. You must cite all sources of information!

