

SUL ROSS STATE UNIVERSITY
Graduate Seminar (BIOL 5101), Spring 2017

Instructor: Dr. Martin Terry
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(Please include the word “**Botany**” or “**1311**” in the subject field of the email.)

Office Hours: T 3:00–5:00 p.m., W 2:00–5:00, or by appointment.
Drop in at random if you feel lucky. If I’m in the office, you’re welcome.

Time and Venue of Lecture: T 10:00–10:50 a.m., WSB 204

Textbook: None

Course description: This course is an opportunity for graduate students interested in field botanical studies and/or analytical chemistry of alkaloids using high-pressure liquid chromatography (HPLC), to design and carry out useful (and publishable) studies – conceivably yielding a study design that would satisfy the requirements for a Master’s thesis project.

Core Objectives addressed:

- 1) Communication Skills – Students will effectively communicate the results of scientific investigations; using oral, written, and visual communication, either in group discussions or on written exams.
- 2) Critical Thinking Skills – Students will include creative thinking, innovation, inquiry, and analysis required to relate new information with previous information in a way that demonstrates the diversity and similarity due to evolutionary ancestry.
- 3) Empirical and Quantitative Skills – Students will use statistical skills to solve concrete problems involving presence/absence of a given species, population density, soil properties, and any correlation between size of plants and altitude, as well as interactions of the target species and other plant species native to the study site.
- 4) Teamwork Skills – Students will work effectively with others to support a shared goal during lab sessions on activities, such as dissections, problem solving, and other experimental procedures.

Objectives of this course:

- Understand terminology relevant to biological laboratory work and fieldwork.
- Explore the applications of scientific skills and knowledge to understanding natural populations of plants in situ.
- Understand the safe and proper use of laboratory and field equipment and supplies.
- Understand the principles of experimental laboratory research and proper reporting techniques.
- Understand the effects humans have on the environment and vice versa.

Grading: Grades will be determined by the quality of the research work (in the field and in the laboratory) over the course of the semester. Grades will be partially determined by the instructor, based largely on observation of the students’ work over the semester. Additionally, there will be a final exam at the end of the semester, covering all aspects of the field and/or laboratory work of the class during the semester.

ATTENDANCE is required in both lecture and lab. 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 or proportional combinations of lectures & labs in this course).

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 Counseling and Accessibility Center, Ferguson Hall 112, Box 122, Alpine, TX 79832 (phone 432-837-8203).