BIO 475-015: SPECIAL PROBLEMS – FALL 2017

Instructor: Dr. Dan Bennett
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Office: S-210
Office hours: TBD and by appointment.

Class meeting time and place: TBD

Required Materials: none/supplied by instructor.

Course Description: Three semester hours. Independent investigations by students guided through individual conferences with a professor. Prerequisites: 18 hours of biology with minimum B average and approval of the department chair.

STUDENT LEARNING OUTCOMES
1. Understand and use the scientific method to test hypotheses (PLO4)
2. Work collaboratively in laboratory and field environments
3. Effectively communicate in oral and written formats (PLO2)
4. Learn field and lab techniques pertaining to entomological research (PLO 1, 4, 5)
5. Develop and/or update and improve upon curriculum vita or resume (PLO5)

PROGRAM LEARNING OBJECTIVES
PLO 1: Knowledge. The student will demonstrate a good knowledge base in biological concepts and be able to integrate knowledge with critical thinking skills to become problem solvers. Knowledge base will include: levels of complexity (molecular/cellular through population/ecosystems), biological principles and processes.


PLO 4: Scientific Method. Be able to design, carry out and analyze experiments to answer biological questions, including: scientific methods and instrumentation; safe and appropriate use of laboratory equipment; experimental design; data analysis; and familiarity with professional standards in science.

PLO 5: Career Preparation. Demonstrate preparation for future career and educational goals utilizing the knowledge and training during their academic program.

General Education Core Curriculum Objectives
This course is not included in the general education core curriculum.

Course Requirements:
The student will process specimens and analyze data on recent collections of ants from the Big Thicket National Preserve. Main themes of investigation include diversity, abundance, and seasonal activity.

Tentative Course Calendar:
The student will meet with the instructor on a weekly basis. Laboratory work will be scheduled throughout the semester.

Grading Policy:
A standard A-F system will be employed. The student will be evaluated based on time and effort (3 hours per credit per week) put in to the project and the following elements:

1. Demonstrated familiarity with local ants (Formicidae) and skill using dichotomous keys – 10%.
2. Literature review – 10%
3. Development of a reference collection based on recent collections – 50%.
   2a. sorting of ants from bulk samples.
   2b. pinning and labeling of sorted ants.
   2c. identification of ants to genus (and species where possible) using dichotomous keys.
4. Analysis of diversity, abundance and seasonality of collected genera/species – 10%.
5. Research summary – 20%.
ACADEMIC INTEGRITY: Academic integrity is expected of everyone in this course. Any form of academic dishonesty will lead to the student receiving a failing grade for the entire course. Additionally, a Report of Academic Dishonesty form will be submitted to your Dean’s office.

SFA Policy A-9.1 is summarized as follows: Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism. Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

WITHHELD GRADES (Semester Grades Policy A-54): Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

STUDENTS WITH DISABILITIES: To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, Room 325, 468-3004/468-1004 (TDD), as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodation. For additional information, go to http://www.sfasu.edu/disabilityservices/. Please note that you must visit with me outside of class time concerning your request before I will be able to provide the accommodations described in the notification from ODS.