Seminar in Biology (Biology 470): Spring 2019
Disturbances in the Natural World

Instructor: Dr. Dennis A. Gravatt  Time: Monday, 4:00-5:15pm
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E-mail: dgravatt@sfasu.edu  Office hours: M, W & F 10:00-11:00; M & W 1:00-2:00

Course Description:

The ability to organize and publicly present your findings in a brief, informative presentation is an essential skill for scientists and professionals. Accordingly, Bio 470 will provide students with experience in researching, preparing, and presenting a seminar on a specific topic.

In ecology, a disturbance is a temporary change in environmental conditions that causes a pronounced change in an ecosystem. You will choose a major types of ecological disturbance and discuss how it influences site potential, productivity, and sustainability. You must also describe the role of disturbance in ecosystem structure and function.

Disturbance can result from natural causes or from the activities of humans. Disturbance can be caused by physical stressors such as volcanic eruptions, hurricanes, tornadoes, earthquakes, and over geological time, glacial advance, and retreat. Humans can also cause physical disturbances, for example, through construction activities and agriculture.

Number of Credit Hours: 1

Course Prerequisites and Corequisites: 20 semester hours of biology; no corequisite.

Program Learning Outcomes:

- Program Learning Outcome #1: 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/communities/ecosystems), biological principles and processes.
- Program Learning Outcome #2: The student will clearly communicate scientific information; provide clear structure and transitions; demonstrate scientific tone, language, and form.
- Program Learning Outcome #5: The student will demonstrate preparation for future career and educational goals utilizing the knowledge and training during their academic program.

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

Student Learning Outcomes:
Students who complete Seminar in Biology will be able to:
1. Describe the ways in which fungi impact the daily lives of humans using specific examples (PLO 1).
2. Evaluate primary literature (PLO 1, 5).
3. Effectively communicate scientific information in oral and written form. (PLO 2, 5).
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, and 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 accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Acceptable Student Behavior

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Presentation Topics & Sources:

You must clear your topic with me by Spring Break. Presentations must be based on references from the primary literature. Generally, web sites are not peer-reviewed and do not constitute reliable primary sources—although they may provide useful references to published literature that is. The reference librarian can help you develop search strategies.

Abstracts:

You will need to turn in an abstract to me no later than March 29, 2019 at 5:00PM. In a single file, using Word, the abstract should be a 200-250 word description of your presentation. Place the abstract, along with list of 5 citations, into the Dropbox provided in BrightSpace by D2L.

Presentations:

You will sign up for your presentation date. Presentations should last no more than 20 minutes with 4 minutes reserved for questions. This format is typical for presentations at scientific meetings. Expect questions from your classmates and me after your presentation. Your talk should include visual aids to support your ideas and concepts. You may use PowerPoint, slides, or the chalkboard. Keep the use of videos to a minimum. You must also take notes during other’s presentations and use them to prepare a symposium synopsis.

Bibliography (Literature Cited):

A minimum of 10 references should be used in preparation for your seminar. A minimum of 6 must come from the primary literature. Others can come from published books, symposium proceedings, and literature review articles. Web pages, which are not subject to any form of peer review, are not acceptable sources (although they can sometimes lead you to good references for published articles). A copy of your bibliography (Literature Cited list) of all the sources you used will be handed in at the start of your presentation.
Presentation Evaluation Criteria:

I will use the following categories to determine your presentation grade. Each category will be scored on a scale of 1-25. A total score (maximum possible of score 100) will be calculated and multiplied by 1.5 to get 150 points.

- **Analysis**
  - The presentation focused on what was important.

- **Evidence**
  - Information appeared to be recent, relevant and from quality sources.

- **Delivery**
  - Message was creatively presented and followed general rules of effective speaking.
  - Slides easy to read and graphics neatly displayed

- **Organization**
  - Presentation conformed to time limits, had a clear direction and time was spent developing the important points.

Just as in professional meetings, time is of the essence. Typically a speaker is given 15 or 20 minutes to present their findings. In this course you will have 15 minutes to present your topic to the class. A time penalty of 3 points will be assessed for every minute less than 14.0 minutes or for every minute over 16.0 minutes that you speak. In order to accomplish this successfully I suggest you practice your presentation before a small group of friends.

A rubric is posted in Brightspace by D2L that will be used to assess your presentation.

**Symposium Synopsis:**

You will be required to write a Symposium Synopsis, a 3-4-page summary of all the talks in the symposium. It will be worth 100 points. Include a discussion of how the subject matter connected or differed among talks. The synopsis is due **Monday, May 9, 2019 @ 5:00PM** in the Dropbox provided in BrightSpace by D2L. Participation points relate to whether you attend and ask questions of other presenters. I will take attendance each time we meet. **You must attend all presentations.**

**Grading:**

Your final grade in this course is determined in the following manner:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>Abstract (due March 29th)</td>
<td>50 pts</td>
</tr>
<tr>
<td>Participation</td>
<td>50 pts</td>
</tr>
<tr>
<td>Symposium Synopsis (due May 9th)</td>
<td>100 pts</td>
</tr>
<tr>
<td>Presentation</td>
<td>150 pts</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td>350 pts</td>
</tr>
</tbody>
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Your final grade will be the percentage of 350 points of your final score: Percentage scores greater than 90% will result in a grade of “A”; 80’s, “B”; 70’s, “C”; 60’s, “D”; and those with scores of less than 60% will fail.
Presentation Calendar/Schedule:

The instructor will publish a schedule of presentations. The order of this list will be in a random order of the students enrolled.

Minimum Effort:

Please remember this is a college, senior-level course. Minimal effort is not the benchmark by which you should compare your work, unless of course 'D' work is okay with you. A 'D' represents results less than standard and/or mediocre. Perhaps priorities about school or life have not been established. Recognize however, that a D can also mean that you truly do not understand what is expected. In any case, minimal effort will not result in a passing grade for this course.

“The only place where success comes before work is in the dictionary.” – Vidal Sassoon

Policy on Absenteeism:

Regular and punctual attendance is expected. The value of a college education depends upon the student’s full participation. Because students are expected not merely to receive information passively or to pass examinations but to participate actively in class, it is important that unnecessary class absences be avoided. Students are expected to be present for all classes and no absence will be automatically excused. Some appropriate reasons for absenteeism are: an illness with dated medical notes; death in the immediate family with clippings from a newspaper announcing the death; scheduled athletic events; scheduled academic events. Other reasons can be discussed, but may not be excused. You are responsible to know what was announced and what material was covered in class during your absence. Lecture notes are not available from your instructor.

Withheld Grades Semester Grades Policy:

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.

Biology Special Fields Test:

The Biology Department requires that all majors take the special fields test before they graduate. Taking this test is therefore a requirement for Biology 470. You will be provided an opportunity to sign up to take this on-campus test. Students failing to take the test will receive a withheld grade (WH) for the course.