Seminar in Biology (Biology 470 001) Spring 2020
The Ecological Impact and control of non-native Invasive Species

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Office hours: T,Th 12:30-3:30 or by appointment

Time: Mondays, 10:00-11:15pm, as necessary;  
Room: Initially M. Sci. 134A but we will move to M. Sci 117.

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. It will also provide you with an indication of your standing with respect to your peers as a graduating Biology major through taking the Major Field Exam - a nation-wide standardized test.

The topic of this section is The Impact, Ecology and Control of Non-native Invasive Species. Invasive species are one of the four principal human-driven threats to Earth's biodiversity (the others are are pollution, habitat destruction, and overexploitation). Each student will choose a non-native invasive species (not restricted to those impacting North America). Your investigations may include the species' ecological role in its native range, its impact where it is invasive, and control measures that are available or are being researched. The invasive species may be a plant, animal or other organism that impacts natural ecosystems.

Presentation Topics & Sources.  
You must clear your topic with me before Spring Break at a face-to-face meeting with me. Bring your topic worksheet to the meeting; It will help to focus the discussion. You may fill it out ahead of time if you have a clear idea of what you want to do or we can fill it out together at the meeting. Emailing your proposed topic is not acceptable, we must meet face to face at least once! Failure to do so will result in a low score on the participation component of the course.

Presentations must be based on references from the primary literature. Some examples of such journals are Ecology, Ecological applications, Ecological Monographs, Ecologia, Journal of Vegetation Science, Science, Nature, Texas Journal of Science, American midland Naturalist, Castanea, and Conservation Biology — (there are many more). Good sources for finding recent articles include the reference publications "Current Contents" and "Biological Abstracts". Generally, web sites are not peer-reviewed and do not constitute reliable primary although they may provide useful references to published literature that is. The science reference librarian at the Steen Library can be a resource for search strategies and finding references. Presentations should emphasize research data: the main focus should be on summarizing the data and results of recent scientific studies for the chosen topic.

Abstracts and Papers:  
Students must write a brief (6-9) pages (not including abstract, figures, & references) properly-referenced research paper describing their findings. The paper should be the basis for the material you present in the oral presentation and the information provided should be largely parallel to your oral presentation. As part of the paper you must submit an abstract to me no later than one week prior to your scheduled seminar presentation date. The abstract should be a 300-word or less summary of your presentation and paper and will also be the first section of the paper before the 'Introduction'. A good abstract introduces, the topic presents the research results and conclusions of your paper or presentation—it is your paper in miniature—not just a proposal or list of what topics you will talk about. Send the abstract and paper to me in an email message as an attached MS Word or text file. Alternatively, bring a USB device with the file to my office. Abstracts will be published in a program of Abstracts and handed out to the class for them to follow on the day of your presentation. Abstracts and papers are due no later than the Monday one week before your scheduled presentation!

Presentations:  
You will sign up for your presentation date at the first meeting. Presentations should last no more than 15 minutes plus 2 or 3 minutes reserved for questions. This format (often you are allowed only 12 minutes!) is typical for presentations at scientific meetings. Expect questions from your classmates and me after your presentation. Your presentation (and paper) should emphasize results of scientific data collected and reported by the authors of the literature you reviewed: Report actual studies, Not just Wikipedia style 'facts!' Your talk should include visual aids to support your ideas and concepts. You may use Power Point (or Open/ Libre Office impress), slides, overhead transparencies, and/ or the chalkboard. Keep the use of videos to a minimum. Participation points relate to both whether you attend all talks and ask questions of other presenters. I will take attendance each time we meet. You must attend all presentations. Attendance will be checked!
Bibliography:
A minimum of 10 references should be used in preparation for your seminar talk and paper. A minimum of 6 of these should must 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). You will submit your bibliography as the References Cited, section of your paper.

Meetings:
In addition to the first meeting On 01/27/20, our presentation meetings will take place on the Mondays 04/06, 04/20, and 04/27. Attendance of each session is mandatory; Any absences will strongly impact your participation score! Each student must also meet individually with me (face to face) at least once to discuss and approve your topic. Failure to meet with me will negatively impact both your participation and presentation scores! Students are also encouraged to meet with me additional times (ideally regularly) to discuss progress on their presentations.

Major Field Exam! ***SEE THE HANDOUT***
Since Bio 470 also functions as cap-stone’ course, the Biology Department requires that all its majors take the ‘Major Field Exam’ before they graduate. This test will provide you an indication of your ranking with respect to other graduating Biology majors nation-wide and is also important to enable our Department to assess our Program Learning Outcomes. 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 (see the handout both in paper and posted on D2L Bright-space). Students failing to take the test will receive a withheld grade (WH) for the course and not be permitted to graduate this semester! While results of the test will not penalize your course grade, I will award bonus points for good performance on a competitive basis to your total score (out of 350 points) as follows: Those scoring in the top 20% of our individual class section will receive 25 extra points; those scoring in the 60th-80th percentile, 10 points; those with scores in the 40th-60th percentile, 5 points; and those with scores in the lower 40%, 0 points.

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

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<th>Component</th>
<th>Points</th>
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<tr>
<td>Abstract</td>
<td>50</td>
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<tr>
<td>Paper (text &amp; Bibliography, excluding abstract)</td>
<td>75</td>
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<tr>
<td>Participation</td>
<td>75</td>
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<tr>
<td>Presentation</td>
<td>150</td>
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Total Points: 350 pts

Bonus (Major Field Exam): 0-25 points

Your final grade will be the percentage of 320 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 Evaluation:
I will use the following categories to determine your presentation grade (up to 150 points):
- Organization and Delivery of Content (45 pts.; 30%)
- Quality of scientific content of the presentation. (45 pts.; 30%)
- Subject Knowledge and Ability to Answer Questions (15 pts.; 10%)
- Graphics (5 pts.; 10%)
- Eye Contact – Non-verbal skills (5 pts.; 10%)
- Oral Delivery – Use of the English language and oral skills (5 pts.; 10%)

A copy of this syllabus and other course information is on the D2L page for our course. Check this page frequently. I will use it for announcements or to contact you.
Biology 470 The Ecological Impact and Control of Non-native Invasive Species: Calendar and Presentation sign-up Sheet

We will be meeting as a group initially on 01/27/20 and subsequently 2 or 3 times for our presentations (depending on enrollment we may not need the 04/06 date). You will sign up for your presentation time during our first meeting on 01/27/20. All are required to attend each meeting! You will be allowed 15 minutes for your talk. This timing is very standard for professional meetings. Students who go over their allotted time will be asked to stop and points will be deducted from their score (in professional meetings the moderator often asks you to step down: Very embarrassing)!

Remember that you must meet with me at least once before Spring Break to discuss and approve your topic. Failure to have your topic approved on time will result in a penalty against your grade. Don’t forget to sign up for the Major Field Exam (MFE) using the information provided on the handout!

**January 27**  Initial organizational meeting

**April 6-27**  Presentation meetings & sign-up

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**April 06**

10:00 __________________________________________________________

3:20 __________________________________________________________

3:40 __________________________________________________________

4:00 __________________________________________________________

**April 20**

10:00 __________________________________________________________

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11:00 __________________________________________________________

**April 27**

10:00 __________________________________________________________

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11:00 __________________________________________________________
Miscellaneous

Academic Integrity (A-9.1) 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, 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/.