Spring 2019
FOR 447
Predator Ecology and Conservation

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Office: Forestry 203E

Office hours: Mon-Thu from 8:00-11:00, or by appointment.

Lecture: Wednesdays 4:00-6:15 PM
Classroom: FOR 205
Credit hours: 3 semester

Course description
Three semester hours, 3 hours of lecture per week. Introduction to predator ecology and current research topics and issues related to predator conservation and management. Emphasis is on predation as a behavior and as an ecological process. Prerequisites: BIO 133 or FOR 255 or permission of instructor.

Program Learning Outcomes.
The course is designed to address the following Program Learning Outcomes, as given in the BSF Program Matrix:

1. Demonstrate understanding and competency of forest ecology and biology;
2. Demonstrate understanding and competency in the measurement of forest resources;
3. Demonstrate understanding and competency in managing forest resources;
4. Demonstrate understanding and competency of forest resource policy, economics, and administration.
5. Demonstrate understanding and competency in oral and written communication skills.

Items #1 - #4 above are required by the Society of American Foresters, the program's accrediting agency.

B.S. Forestry Program Learning Outcomes
Proficiency Levels

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<tbody>
<tr>
<td>FOR 305</td>
<td>Advanced</td>
<td>Advanced</td>
<td>Advanced</td>
<td>Intermediate</td>
<td>Advanced</td>
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Student Learning Outcomes

Upon completion of the course, students will:

a. Foundational knowledge.
   - have a clear understanding of the fundamental and most current issues in predation theory and predator ecology.
   - have a clear understanding of important concepts related to predator ecology, conservation and management.

b. Application.
   - be able to find information on and analyze current predator ecology and conservation issues.
   - be able to identify current knowledge gaps and needs in predator ecology and conservation/management research.

c. Integration.
   - identify the interactions between predation theory and other realms of knowledge such as conservation biology, ecology, economics, and policy design.

d. Human dimension.
   - be able to identify ways in which one’s or someone else’s personal life could affect or be affected by addressing issues related to the conservation and management of predators.

e. Future learning.
   - be familiar with a number of popular ecology journals and other sources of knowledge about animal behavior and community ecology.
   - have some specific ideas about what other knowledge would be desirable to have about predator behavior, conservation, and management.

Textbook and readings

All reading material will be provided by the instructor as pdf files posted in D2L.

Course requirements

Knowing and understanding the material presented and discussed in lectures is the keystone for successfully completing this course. Considering that the class meets once a week I expect all students to have perfect attendance and be well prepared for class. I commit myself to being knowledgeable on all the topics that we will cover in class and being well prepared to lecture about them.

Required readings

Readings will be provided in pdf format. At the end of each lecture I will make reading assignments for the following week. These readings should not be considered optional, as you
will be expected to discuss their contents in class. Reading the assigned journal articles will prepare you to better interpret and assimilate the contents of the lectures. Being up to date with the reading assignments is a critical component for successfully completing this course.

**Discussion sessions, reading assignments and concept mapping**

Although reading activities should be conducted individually, I will divide the class in groups of three students for the sole purpose of discussion. Members of each group will create a concept map for each reading assignment that will be presented to the rest of the class and used as a guideline for the discussion of the material read. Students are encouraged to use software CMap Tools ([https://cmap.ihmc.us/](https://cmap.ihmc.us/), Florida Institute for Human & Machine Cognition) to develop their concept map. Students are also encouraged to use the free tutorials available on YouTube on how to use this tool (CmapTools: How to Construct a Concept Map).

**Grading**

Grading will be based on student’s participation in class and performance in formal exam. Points in each assignment are described below. Final grade will be assigned following the grading chart below.

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<tr>
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<th>Grading scale</th>
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<tbody>
<tr>
<td>Weekly discussions</td>
<td>A = 90%-100%</td>
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<tr>
<td>Midterm exam</td>
<td>B = 80%-89%</td>
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<tr>
<td>Final exam</td>
<td>C = 70%-79%</td>
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<td></td>
<td>D = 60%-69%</td>
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<tr>
<td>Total</td>
<td>F = &lt;60%</td>
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**Attendance Policy**

Perfect attendance to all scheduled activities is a requirement for this course. Justified absences will be accepted with the proper documentation. Student with two or more unjustified absences to lectures or labs will have a reduction of 10% in the total number of points accumulated during the entire course.

**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.

**Student Academic Dishonesty Policy**

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

**Penalties for Academic Dishonesty (Policy 4.1)**
Penalties may include, but are not limited to, reprimand, no credit for the assignment or exam, resubmission of the work, make-up exam, failure of the course, or expulsion from the university.

**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.

**Course Grades Policy (5.5)**
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. Please read the complete policy at http://www.sfasu.edu/policies/5.5_course-grades.pdf

**Academic Accommodation for Students with Disabilities Policy (6.1)**
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/.
**Responsible Use of Technology**
It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class or other penalties.

**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 10.4). 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. Please read the complete policy at [http://www.sfasu.edu/policies/student-code-of-conduct_10.4.pdf](http://www.sfasu.edu/policies/student-code-of-conduct_10.4.pdf)

**Course outline.**
Below is the proposed list of topics to be covered in the course. The instructor reserves the right to modify and/or replace topics and the assigned week for each topic to improve student’s learning experience: For every topic there will be at least one reading assignment that will be discussed in class.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Week 1</th>
<th>Predation theory. Predation as an ecological process.</th>
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<tbody>
<tr>
<td>Week 2</td>
<td>Ecological niche.</td>
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<td>Week 3</td>
<td>Predator morphology, physiology, and function.</td>
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<td>Week 4</td>
<td>Predator-behavior.</td>
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<td>Week 5</td>
<td>Solitary predators.</td>
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<td>Week 6</td>
<td>Social predators.</td>
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<td>Week 7</td>
<td>Prey anti-predator behavior.</td>
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<td>Week 8</td>
<td>Predator competition.</td>
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<td>Week 9</td>
<td>Game theory and predator-prey interactions.</td>
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<td>Week 10</td>
<td>Predator-prey interactions.</td>
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<td>Week 11</td>
<td>Population dynamics.</td>
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<td>Week 12</td>
<td>Predators and community ecology.</td>
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<td>Week 13</td>
<td>Trophic cascades: top-bottom and bottom-up process.</td>
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<td>Week 14</td>
<td>Predator-humans interactions.</td>
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<td>Week 15</td>
<td>Predator conservation and management.</td>
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Concept map of topics and concepts covered in the course.