TENTATIVE SYLLABUS
BIOL 5301-029
HISTORY OF ECOLOGICAL THOUGHT AND CONSERVATION PRACTICE
Spring 2019
Wednesday 17:30–20:20; Liberal Arts Building 207

Instructor:
Markus J. Peterson, Biology 406
P: 915-747-5354; F: 915-747-6808; Email: mjpeterson@utep.edu

Course Description:
This course provides a survey of the philosophical roots and evolution of ecological thought and conservation practice. Emphasis is placed on theoretical foundations, seminal concepts, classic papers, and historic trends.

Prerequisites:
An undergraduate course in ecology and graduate classification, or instructor approval.

Course Objectives:
Upon course completion, students should understand and, where appropriate, be able to rigorously utilize:
1. Key theoretical and methodological concepts and terminology associated with ecology and conservation.
2. History and development of ecological thought and conservation practice.
3. Basic principles of population ecology and conservation.
4. Theoretical and practical concepts associated with community organization and structure.
5. The limitations and merits of these principles as the underpinnings for currently popular applications of ecology, such as adaptive resource management, biodiversity conservation, ecosystem management, ecosystem services to humanity, and sustainable development.

Required Texts:

Recommended/Optional Texts:

Readings:
See page 5 for a list of recommended readings. Those required for the class (page 4) are either in the required textbooks or available on OneDrive.

All written assignments must follow Conservation Biology style guidelines. See http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1523-1739/homepage/ForAuthors.html and recently published articles for details. Assignment instructions will be handed out in class and available on OneDrive.
Grading:
The concept papers are worth 150 points each (total 450). The group project, including outline, written report, and summary (250 points) and class presentation (100 points) total 350 points. Class participation (200 points) brings the course total to 1000 points. Assignment details are presented in separate handouts. See page 4 for due dates.

Scale:  
90–100% = A  
80–89% = B  
70–79% = C  
60–69% = D  
≤59% = F  

Point Distribution:  
Exams 0% (or 30%)  
Concept Analyses 45% (or 30%)  
Participation 20% (or 10%)  
Group Project 35%

Important UTEP Dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>21 January</td>
<td>MLK day; university closed</td>
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<tr>
<td>22 January</td>
<td>First day of spring semester classes</td>
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<tr>
<td>22–25 January</td>
<td>Late registration</td>
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<tr>
<td>23 January</td>
<td>First day BIOL 5321</td>
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<tr>
<td>06 February</td>
<td>Spring census Day</td>
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<tr>
<td>18–22 March</td>
<td>Spring break</td>
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<tr>
<td>29 March</td>
<td>Cesar Chavez observance (no classes)</td>
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<tr>
<td>05 April</td>
<td>Spring drop/withdrawal deadline</td>
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<tr>
<td>09 May</td>
<td>Last day of spring classes</td>
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<tr>
<td>10 May</td>
<td>Dead day</td>
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<tr>
<td>15 May</td>
<td>Final exam period—19:00–21:45</td>
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<tr>
<td>18–19 May</td>
<td>Spring commencement</td>
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Examinations:
- You must take examinations during class on the dates listed in the syllabus.
- No “makeup” examinations will be given.
- An exam may be taken early if you must miss class for a university approved reason (http://student-rules.tamu.edu/rule07). Proof must be provided.

Expectations:
- Attend every class; there is no room for random absences because each lecture builds on previous work. Attendance for the entire class period will form part of your class participation grade.
- Be on time. I expect you to be in your seat when the class begins. Punctuality will form part of your class participation grade.
- Read assigned materials before class. This, as evidenced by your participation in class, will form the majority of your class participation grade.
- Participate in all class discussions (see above).
- Submit all assignments electronically before class on the date due.
- Adhere to UTEP expectations regarding academic integrity; do not plagiarize. See details and website listed below for relevant definitions and rules.

Academic Integrity:
Academic dishonesty is prohibited and considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. More information on academic dishonesty can be found at http://academics.utep.edu/Default.aspx?tabid=23785. All forms of academic dishonesty will be reported and result in the allocation of an automatic failing final grade in this course.
Civility:
Students are expected to conduct themselves in a professional manner in class. Text messaging and the use of cell phones while lectures are in progress will not be tolerated. Students should voice concerns to me via email.

Disabilities:
If a student has or suspects s/he has a disability that needs accommodation, s/he should contact Disabled Student Services (DSS) office at 747-5148 or dss@utep.edu, or go to Room 106 Union East Building. Student are responsible for presenting me with any DSS accommodation letters and instructions.

Military Statement:
If you are in the military and anticipate deployment, contact me as soon as possible.

Need help with academic, career, or personal issues? These people will help.
University Counseling Center  202 Union West  747-5302
Center for Accommodations and Support Services  106 Union East  747-5148
University Career Center  103 Union West  747-5640
# Tentative Syllabus

**BIOL 5301-029**  
**History of Ecological Thought and Conservation Practice**  
**Spring 2019**

<table>
<thead>
<tr>
<th>Day</th>
<th>Mo.</th>
<th>Topic</th>
<th>Readings</th>
<th>Due Dates</th>
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</table>
| 23  | Jan | **Introductory Material**<sup>1</sup> (pretest, survey)  
Philosophy and Terminology  
| 30  | Jan | **Historical & Philosophical Perspectives**<sup>1</sup>  
Protoecologists  
Arcadian and Imperial Traditions of Ecology | Kingsland 1991<sup>4</sup> |  |
| 06  | Feb | **The Subversive Science**<br>The Dismal Science | Worster 1994<sup>4</sup>, Part II<br>Worster 1994<sup>4</sup>, Part III<br>Darwin & Wallace 1858<sup>3</sup> |  |
| 13  | Feb | Post Darwinian Ecology  
Ecological Pioneers | Worster 1994<sup>4</sup>, Chap. 10<br>Forbes 1887<sup>4</sup>, Cowles 1899<sup>4</sup> |  |
| 20  | Feb | Succession  
Ecologists Come Out of the Closet | Worster 1994<sup>4</sup>, Chap. 11, Weaver & Clements 1938<sup>4</sup>, Gleason 1926<sup>4</sup><br>Worster 1994<sup>4</sup>, Chap. 12 | **Concept paper I** |
| 27  | Mar | **The New Ecology**<sup>1</sup>  
Nature of Community  
Pop. Interaction & Community Structure | Tansley 1935<sup>4</sup>, Lindeman 1942<sup>4</sup><br>Worster 1994<sup>4</sup>, Chaps. 13–14 |  |
| 06  | Mar | Ecological Theory, Theses, Antitheses, and Syntheses | Worster 1994<sup>4</sup>, Chap. 15, Hutchinson 1957<sup>4</sup>, 1959<sup>4</sup> | **Detailed outline, literature cited** |
| 13  | Mar | The Age of Ecology | Worster 1994<sup>4</sup>, Part VI<br>Naess 1986 |  |
| 20  | Mar | **Spring Break** |  |  |
| 27  | Apr | **Population Ecology**<sup>1</sup>  
| 03  | Apr | **Community Organization & Structure**<sup>1</sup>  
Nature of Community  
| 10  | Apr | Food Webs  
Patterns in Species Richness | Begon et al. 2006: 20<sup>6</sup><br>Begon et al. 2006: 21<sup>6</sup> | **Concept paper III** |
| 17  | Apr | Ecological Applications—Communities  
Ecology, Human Society, & Conservation<sup>1</sup>  
Household Dynamics  
| 24  | May | Group Presentations—Applications of Ecology; Conservation | Peterson et al. 2007<sup>3</sup>, 2008<sup>3</sup><br>Peterson et al. 2005<sup>3</sup>, Leach 2006<sup>3</sup><br>Peterson et al. 2006a<sup>2</sup>, 2006b<sup>2</sup>, 2010b<sup>4</sup>, 2013 |  |
| 01  | May | Group Presentations—Applications of Ecology; Conservation |  | **Group Papers & Presentations** |
| 08  | May | Group Presentations—Applications of Ecology; Conservation |  | **Group Presentations** |
| 15  | May | **Final Exam Period (19:00–21:45)** |  |  |

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<sup>1</sup> Boldfaced type indicates major topics.

<sup>2</sup> Recommended reading for those with limited background on ecology of organisms, populations, and population Interactions, or for those studying for Ph.D. preliminary exams in ecology, from *Ecology: From Individuals to Ecosystems* (Begon et al. 2006)—listed by chapter.

<sup>3</sup> Required reading available on OneDrive.


<sup>6</sup> Required reading from *Ecology: From Individuals to Ecosystems* (Begon et al. 2006)—listed by chapter.
REFERENCES

HISTORY OF ECOLOGICAL THOUGHT AND CONSERVATION PRACTICE
BIOL 5301-029


1 For required readings, see schedule on page 4 of the Tentative Syllabus. For your convenience, this list includes citations for required readings as well as most other articles I shall refer to in class.


Stegner, W. E. 1954. Beyond the hundredth meridian: John Wesley Powell and the second opening of the West. Houghton Mifflin, Boston, Massachusetts, USA.
Thoreau, H. D. 1989. A week on the Concord and Merrimack rivers; Walden, or, life in the woods; The Maine woods; Cape Cod. Library of America, New York.


