Natural Resources (NR) 2000 – Natural Resources Professional Orientation  
Spring Semester, 2016

INSTRUCTOR:  F. E. “Fee” Busby, BNR 275, phone: 435-757-5636, e-mail: fee.busby@usu.edu

Class Meeting Time and Location

3:00 pm - 5:00 pm Monday – Natural Resources 105

January 11, 2016 AND March 21, 2016 to April 25, 2016

Note that the class is organized like this so we can (1) meet and get organized on January 11th and (2) go on three field trips in April.

Text Book (Required): A Sand County Almanac by Aldo Leopold (See discussion below)

INTRODUCTION:

The primary purpose of this course is to prepare you to make informed decisions about your major and career. While we will address many issues that relate to natural resources, THIS IS NOT A CONTENT COURSE. Rather it is an orientation / advising course.

Specifically, the course will (1) involve you in the Quinney College of Natural Resources (QCNR) or in your home College/Department if not a QCNR major; (2) introduce you to the disciplines/majors of the QCNR; (3) get you enthused about and committed to your major and profession; (4) introduce you to some local, regional, national, and global natural resource science/management issues; (5) introduce you to some practicing professionals and their jobs; and (6) assist you in networking with fellow students, QCNR faculty, and staff; or students, faculty (or students, faculty, and staff in your home College/Department if not a QCNR major).

Note, while this class is specifically designed for majors in the QCNR, but class assignments will be modified to meet the needs of students who are not majors in the college.

LEARNING OBJECTIVES: At the end of this course, your should –

1. Develop priority setting and time management skills needed schedule activities which earn the points necessary to obtain the grade you want in this class.
2. Develop an understanding of the course and other requirements of your major, the importance of prerequisites and course sequences, and the importance of having a plan that will lead to graduation.
3. Meet, associate with, and learn from upper division students through participation in professional, student organization activities.
4. Develop an understanding of some of the careers and work done by graduates of Natural Resources, and develop an understanding of how your interest relate to issues dealt with by the QCNR.
5. Develop an understanding of the relationship of some of the global issues faced by humankind with management of natural resources.
6. Develop friendships that will make your college experience and career more enjoyable and productive.
7. Understand and appreciate your College and Department as your USU home.

COURSE ADMINISTRATION:

Accommodations for disabilities: Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disabilities Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

Academic integrity: Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all USU students. Infractions (cheating, falsification, and plagiarism) and their associated penalties are described in the USU Academic Policies and Procedures Manual (www.usu.edu/policies). Click on "C" for cheating, "F" for falsification, and "P" for plagiarism.
Examples of cheating that will not be tolerated include copying of another student’s work (such as a report on a meeting), claiming to participate in an activity in which you did not participate, turning in the same report twice for grade, and copying material from a report without providing proper credit.

NR 2000 GRADING:
The course is built around involvement of students in a variety of activities including
1. Interview your course instructor
2. Interview your academic advisor
3. Interview your faculty advisor
4. Participation in two activities organized by student organizations
5. Three readings (and reports) from A Sand County Almanac
6. Complete resume and job application exercise
7. Participate in class (particularly the three in-class field trips)
8. Data analysis from field trip

Activities 1 – 4 MUST BE DONE TO PASS THE COURSE WITH A “C-.” See following discussion of grading.

NOTE that you can participate in other activities for credit. Such activities must be approved in advance by the instructor.

<table>
<thead>
<tr>
<th>Grading -- Activities</th>
<th>Points</th>
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<tbody>
<tr>
<td>Interview your course instructor</td>
<td>Required</td>
</tr>
<tr>
<td>Interview your academic advisor (report required)</td>
<td>Required</td>
</tr>
<tr>
<td>Interview your faculty advisor (report required)</td>
<td>Required</td>
</tr>
<tr>
<td>Participation in two activities organized by student organizations (report required)</td>
<td>Required</td>
</tr>
<tr>
<td>Three readings (and reports) from A Sand County Almanac (reports required)</td>
<td>25 points each</td>
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<tr>
<td>Complete resume and job application exercise (in class exercise)</td>
<td>50 points</td>
</tr>
<tr>
<td>Participate in class (particularly the three in-class field trips) (report required)</td>
<td>50 points each</td>
</tr>
<tr>
<td>Data analysis from field trip (report required)</td>
<td>25 points</td>
</tr>
<tr>
<td><strong>Total Points Possible</strong></td>
<td><strong>1000 points</strong></td>
</tr>
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Note that QCNR opening social is on **September 3 at 4 pm on the patio of the NR building.** Attending the opening social will count as one of the student organization activities.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Points</th>
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<tbody>
<tr>
<td>A</td>
<td>More than 930 points</td>
</tr>
<tr>
<td>A-</td>
<td>900 - 929</td>
</tr>
<tr>
<td>B+</td>
<td>870 - 899</td>
</tr>
<tr>
<td>B</td>
<td>830 - 869</td>
</tr>
<tr>
<td>B-</td>
<td>800 - 829</td>
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Because of everyone scheduling interview with your Academic Advisor and Faculty Advisor, an attending student organization activities may be difficult in the first seven weeks of the semester, you have until December 7 to turn in reports for these activities.
Approximate Class Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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| Week 1, January 11 | 1. Introduction, course over-view and expectations, introduction to professionalism and “professional” majors.  
2. Assignments:  
   a. Interview Course Instructor  
   b. Interview Academic Advisor  
   c. Interview Faculty Advisor  
   d. Participate in student organization activities  
   e. First reading in A Sand County Almanac |
| Week 2, March 21  | 1. Natural Resource Jobs  
2. Job Search / Resume Exercise  
3. First report from A Sand County Almanac is due |
| Week 3, March 28  | 1. Faculty Advisors  
2. Academic Service Center |
| Week 4, April 4   | 1. Terrestrial Ecology Field Trip  
2. Job Search / Resume Exercise Due  
3. Second report from A Sand County Almanac is due |
| Week 5, April 11  | ENVS Field Trip |
| Week 6, April 18  | 1. Aquatic Field Trip  
2. Third report from A Sand County Almanac is due |
| Week 7, April 25  | Summary and close out. NOTE that papers (such as your interview with your faculty advisor can be turned in until May 2nd). |
| Week 8, May 2     | 1. No class  
2. LAST DAY TO TURN IN WORK FOR CREDIT. ALL WORK MUST BE TURNED IN BY 5:00 PM |

READINGS:

Our textbook is A Sand County Almanac written by Aldo Leopold in the 1940s. Leopold is considered to be the “father” of both the practice of wildlife management and the wilderness movement. The book has had millions of copies printed and has been translated into at least nine languages. It has informed and changed the environmental movement, natural resource management, and stimulated a widespread interest in ecology as a science. Yet, it is written in a way that requires no advanced courses to understand. It is the perfect book for NR 2000.

There are three required readings in A Sand County Almanac. A report is required for each reading.

Reading 1 – “Forward” through the chapter on “July” in A Sand County Almanac. Due on March 21.

Reading 2 – “August” through “December” in A Sand County Almanac. Due on April 4.

Reading 3 – Chapters titled “Conservation Esthetic” through “The Land Ethic” in A Sand County Almanac. Due on April 18.

Besides introducing you to Aldo Leopold, the purpose of this exercise is to help you translate your life experiences into your philosophy about natural resources. Your philosophy will have a lot to do with how you approach and enjoy natural resource management. It is hoped that each reading will trigger a memory of some event that has happened in your life. Your assignment is to write a report on the memory of yours that the reading caused you to think about.

- Identify the specific writing of Leopold that triggered your memory (chapter, pages, etc.).
- Describe the experience (where did it happen, who did it happen with). Go into some detail about the place. What did it look like, feel like, smell like. Describe how the people you were with (parents, grandparents, siblings, spouse, friends, Scout troop, and/or teachers) that made the experience such a special memory.
- Describe how the experience affected your interest in natural resources.

Reports should be approximately 1 - 3 pages in length. Each report is worth 25 points.
Who was Aldo Leopold?

*Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher “standard of living” is worth its cost in things natural, wild, and free. For us of the minority, the opportunity to see geese is more important than television, and the chance to find a wild flower or animal is a right as inalienable as free speech.* – Aldo Leopold

Aldo Leopold (1887-1948) is considered the father of wildlife ecology, but his research and writing has had significant effects on all natural resource disciplines. He was a renowned scientist and scholar, exceptional teacher, philosopher, and gifted writer. It is for his book, *A Sand County Almanac*, that Leopold is best known by millions of people around the globe. The Almanac, often acclaimed as the century's literary landmark in conservation, melds exceptional poetic prose with keen observations of the natural world. The Almanac reflects an evolution of a *lifetime of love, observation, and thought of the natural world*. It led to a philosophy that has guided many to discovering what it means to live in harmony with the land and with one another.

The roots of Leopold's concept of a "harmony with the land" can be traced to his birthplace on the bluffs of the Mississippi River near Burlington, Iowa. As a youngster, he developed a zealous appreciation and interest in the natural world, spending countless hours on adventures with his father in the woods, prairies, and river backwaters of a then relatively wild Iowa. This early attachment to the natural world, coupled with an uncommon skill for both observation and writing, lead him to pursue a degree in forestry at Yale.

In 1909, Leopold joined the U.S. Forest Service and was assigned to the Arizona Territories. During his tenure, he began to see the land as a living organism and develop the concept of community. This concept became the foundation upon which he became conservation's most influential advocate. In 1924, because of health problems, he accepted a transfer to the U.S. Forest Products Laboratory in Madison where he served as associate director, and began teaching at the University of Wisconsin in 1928.

Leopold's cornerstone book *Game Management* (1933) defined the fundamental skills and techniques for managing and restoring wildlife populations. This landmark work created a new science that intertwined forestry, agriculture, biology, zoology, ecology, education and communication. Soon after its publication, the University of Wisconsin created a new department, the Department of Game Management, and appointed Leopold as its first chair.

Leopold’s unique gift for communicating scientific concepts was only equal to his fervor for putting theories into practice. In 1935, the Leopold family purchased a worn-out farm near Baraboo, in an area known as the sand counties. It is here Leopold put into action his beliefs that the same tools people used to disrupt the landscape could also be used to rebuild it. An old chicken coop, fondly known as the Shack, served as a haven and land laboratory for the Leopold family, friends, and graduate students. And it was here Leopold visualized many of the essays of what was to become his most influential work, *A Sand County Almanac*.

For more information about Aldo Leopold and his work, you can view:

[https://www.youtube.com/watch?v=abiZ3VZ9xxQ](https://www.youtube.com/watch?v=abiZ3VZ9xxQ) -- Aldo Leopold, the father of modern game management and the Wilderness system had his first duty assignment with the Forest Service in Arizona. This story takes a look at Aldo's life and early career. 8 minutes, 30 seconds.

[https://vimeo.com/8669977](https://vimeo.com/8669977) -- A preview of the full-length documentary file about Aldo Leopold, *Green Fire* highlights Leopold’s extraordinary career, tracing how he influenced the modern environmental movement. 13 minutes, 30 seconds.

[https://www.youtube.com/watch?v=_29ZlKyJJPo](https://www.youtube.com/watch?v=_29ZlKyJJPo) -- This award-winning film chronicles the life of Aldo Leopold, father of modern ecology. In addition, it portrays, month by month, the natural events described in his seminal book, *A Sand County Almanac*. -- 58 minutes.