
Natural Resource Conservation and Policy

Conservation, viewed in its entirety, is the slow and laborious unfolding of a new relationship between people and land.

—Aldo Leopold,
Wisconsin Wildlife Chronology (1940)

*Tell me the landscape from which you come,
and I will tell you who you are.*

—Jose Ortega y Gasset

*The Stone Age came to an end,
but not because we ran out of stones.*

— Ernesta Ballard, Commissioner,
Alaska Dept. of Environmental Conservation

The king who cannot take good care of the mountain, forest, lake and meadow, will not be able to rule the nation.

—Guan Zhong (645 BC)

A nation deprived of its liberty may win it, a nation divided may unite, but a nation whose natural resources are destroyed must inevitably pay the penalty of poverty, degradation, and decay.

—Gifford Pinchot, founder, U.S. Forest Service

*Despite our artistic pretensions,
sophistication and accomplishments—
we still owe our existence
to a six-inch layer of topsoil
and the fact that it rains.*

—Chinese Proverb

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Course Description:

The course examines the conservation of natural resources, including its history and ecological, economic and social foundations. First we discuss the basic principles of resource management including sustained yield, ecology, policy formation, and the effects of world population growth. With this foundation, we take a more detailed look at the management of specific resources, including agriculture, rangeland, forest, wildlife, fisheries, recreation, minerals and energy.

The Goal of Resource Conservation:

"To learn to live on a piece of land without spoiling it."

—Aldo Leopold

Resource conservation is about survival—survival of both ourselves and our planet. Over the long-term, human welfare and environmental integrity are inseparable. Resource conservation is about working *with* nature to provide what we need while trying to minimize our impact on the environment. We cannot “lock up” all of Earth’s natural resources. People are consumers—when we stop using the Earth’s bounty, we die. We must try to limit our population and to stop consuming far more than we need. But even if we succeed at doing so, the remaining humans will still need food, water and shelter. We will still need to obtain everything we require from the Earth. And as Leopold said, we must learn to do so without spoiling the very source of our livelihood.

Course Objectives:

Upon completion of this course, the student should:

- Recognize our total dependence on natural resources and our own *personal* impacts on them. All of us “live off the land,” though for most of us, this link is so remote that we are no

longer aware of it. All of us are consumptive users of the environment.

- Recognize the complexity of our resource problems; that there are often no simple answers and there is no free lunch—all decisions have consequences.
- Recognize the importance of our philosophy in determining both the types of environmental problems we are likely to confront and the types of solutions we are willing to consider
- Recognize that *everything is connected*. View all resources not as separate entities, but as communities of living, interacting organisms and their abiotic environments.
- Be able to challenge both optimistic and pessimistic perceptions about the state of our environment.
- Be able to explain what sustained yield is and why it is important in resource management.
- Consider both human needs and the needs of ecosystems.
- Be able to tolerate, and even appreciate, diverse viewpoints.
- Policies are the rules that govern the behavior of an individual, group, organization or government. Policies include conventions, laws, regulations, enforcement, contracts, partnerships, and collaboration.
- Recognize that few disciplines are more controversial than resource management—and few are more important.

Required Texts:

1. *Natural Resource Conservation*, by Chiras, et al. You don’t have to outline the chapters in Chiras, but do read each assigned chapter. The book provides important background and supplementary information.
2. *A Sand County Almanac* by Aldo Leopold. We will read and discuss this book in detail in discussion groups. Please get the

Oxford 1987 Edition ordered for this class in the textbook section of the bookstore. Other editions have different essays.

The test can include questions from ALL reading assignments, including this syllabus.

3. There will be additional short readings passed out in class and/or available on Blackboard, the online resource for this class at <http://classes.uaf.edu/>.

Grading Policy:

The percentage of points (90%, 80%, 70% break for A, B, C, respectively) earned out of the total possible points in the course, as shown below.

Submit an Entry Knowledge Quiz (on Blackboard)	75
Short Paper on Your "Ecological Footprint."	50
15 Online Chapter Quizzes (10 pts each)	150
3 Summaries (Fieldtrip, Website, or Video) 40 pts each.	120
Attend Leopold Discussion 1	20
Attend Leopold Discussion 2	20
Attend Leopold Discussion 3	20
Attend Commons Game Session 1	20
Attend Commons Game Session 2	20
Leopold Essay 1	150
Leopold Essay 2	150
Leopold Essay 3	150
Test 1	225
Test 2	225
Final Exam	300
Instructor's judgment of your attendance, participation and improvement during the semester. In short, would I recommend you for a job in this field? Are you responsible, reliable, hard-working, enthusiastic and capable?	100
Total	1795

Note that an *average* grade is a C and that zeros play havoc with the total number of points received in the semester. Each year, 20% of the students in this course receive an F, and inevitably they have several zeros on the grade sheet. This is NOT a difficult course—unless you choose not to do the work.

Anyone who has less than 51% of the possible points by October 27 is automatically withdrawn from the course.

Academic Honesty:

The UAF [Student Code of Conduct](#) is presented on page 71 of the 04-05 UAF Catalog. No collaboration among students will be allowed on essays, tests, exams and online quizzes. Copying or paraphrasing another student's writing is a violation of the Student Code. Evidence of academic dishonesty (either copying anyone else's work or allowing someone to copy yours) will be presented to the Director of Judicial Services and may result in an F for the course possible expulsion from the University.

Learning Disabilities:

If you have a learning disability that may interfere with your ability to perform the work in this course, I am happy to make any necessary accommodations. However, it is the student's responsibility to obtain an Accommodation Letter from the Disabilities Office of the Health Center (ext.6158). This letter MUST be presented to Dr. Todd within the first two weeks of class. No accommodations will be made until this letter is given to the professor. Accommodations will NOT be made retroactively (i.e. if you have a spelling disability, you must present the letter before any points are deducted for spelling).

Guest Speakers are Volunteers—Please be considerate!

Most speakers are quite nervous about speaking to a group this large. They spend considerable time putting together a talk they

hope you will like. Please show them—and your fellow students—the respect they deserve. Good audience behavior enhances the reputation of the University and our ability to attract speakers who are at the cutting edge of their fields.

- Anyone talking during a presentation will be asked to leave.
- Anyone sleeping during a presentation will be asked to leave.
- Any student who is asked to leave three times will be withdrawn from the course.
- Do NOT put books away or zip backpacks until class is over (i.e. NOT ONE MINUTE BEFORE 11:30).
- If you arrive more than 10 min. LATE, please sit in the back.
- If you MUST leave early, please sit in the back and depart quietly.
- Feet belong on the floor, not up in a speaker's face.
- Please use the bathroom *before* or *after* class, not during it. Leaving and returning disrupts the class and disturbs other students.

The Difference Between Research Universities and High School or Community Colleges

Students should also know the difference between research universities and colleges. At high schools and community colleges, faculty are not expected to do research and virtually none of their institution's income is derived from research. Teaching is their focus.

But at a university, the *majority* of the capital and operating costs come from research grants. The primary purpose of research universities is to conduct research. Teaching is a side benefit. This arrangement has worked for centuries to push the envelope of knowledge while at the same time training the next generation of researchers. These are also considered to be higher caliber institutions for learning; a degree from a research university is generally more coveted than one from a non-research oriented college.

As a result of this research focus, most faculty have 70-80% research appointments and just 10-20% teaching appointments. Even if the professor wants to spend more time teaching, s/he is not being paid to do so and must still complete the research that is required. If you sometimes feel that professors do not spend enough time with students, please be aware that many of us would like to spend more time teaching, but teaching alone cannot begin to support the costs of a university like this. Research pays the lion's share of the bills, constructs most of the facilities on campus, adds to the value of your diploma and certainly adds to the ability of a university to attract professors who are at the cutting edge of their fields. Although it has its downside in pulling faculty away from the classroom, it has great benefits also. If it did not, you and I would probably be at a community college right now.

Brief Biography

I grew up in western Nebraska and eastern Wyoming. I hold a BA in cellular biology from Bryn Mawr College in Philadelphia. I also hold a Masters in Regional Planning from the University of Michigan. My PhD—also from Michigan—is in Natural Resources, specializing in Environmental Mediation.

I came to Alaska in 1975. Since then, I have worked as an employee and/or a consultant for the US Forest Service, the Fish and Wildlife Service, the National Marine Fisheries Service, the National Park Service, the Alaska Dept. of Natural Resources and the Alaska Dept of Fish and Game, Chugach Natives Inc., Louis Berger Consulting, and the US Agency for International Development.

My planning and mediation experience includes development of a management plan for 13 million acres of state land in Alaska's Tanana River Watershed and the successful resolution of the intense debates over wolf management in Alaska's Fortymile River area.

In addition to this course, I teach courses in Resource Planning, Environmental Mediation, Sustainable Development in the Third World, and Literature of Science and the Environment. My research looks at ways give citizens a voice in environmental decisions and planning processes.

LATE PAPERS:

Each written assignment is turned in AT THE END OF CLASS on the DATE DUE. It is far easier to keep track of papers if they are all collected in class at the same time. To encourage everyone to turn them in on time and to reward those who do, the following points will be deducted from late papers.

Email

Only those with active UAF accounts are allowed to use our "online classroom" called Blackboard. Your UAF email account should be generated automatically a day after you register. Please forward your UAF account to your hotmail, yahoo or other account if you prefer to use that account, since we cannot send mail to such external accounts from within Blackboard.

If you send an email to me or to the TA, please put **"NRM 101" at the start of the subject line**. Most faculty get 100-200 messages/day, many of which are spam. If you want us to read your email, **ALWAYS include a subject and your identity**. Otherwise, it could be considered spam and be deleted.

Blackboard

We use the online course center called "Blackboard" (abbreviated BB) for many things in this class. It allows us to post copyrighted material without charge (since only those with a password can access it), most of the gradebook is kept online, and you can access lecture notes, announcements, handouts, etc. Go to <http://classes.uaf.edu/> and log in using your UAF userid (the fsabc part of your UAF email address) and a password that you create. First time users of BB should use their social security number without any dashes as their password. Once logged in, you can change your password by going to "TOOLS" and then to "PERSONAL INFORMATION" where you can click on "CHANGE PASSWORD."

Editing and Spelling Matters...

One point will be deducted for each spelling error on each written assignment except tests. If you have trouble spelling, ask the Writing Center or a friend to proofread your papers. The Writing Center on 8th Floor Gruening has trained staff who will proofread your paper for FREE. Save points by taking your paper there before turning it in. If your first paper loses many points for grammar and spelling, your section instructor will require that you take you last two papers to the Writing Center.

The following are taken from papers submitted in this class. It simply takes longer to comprehend such sentences. When the entire paper is like this, it can take **10 times as long** for me to discern what the writer was trying to say, let alone grade the paper. Take pity on your readers! Spell check and READ your papers (AND your email messages) before turning them in.

- "In terms of a dame, I say no, under he presidents we promote adversity of life." (This is an exact copy!)
- "Darwin saled around the world on a boat called "The Bagel."
- "To put out a plot, you masure 10 meters and drive in a steak."

Jobs in natural resources, wildlife and fisheries are highly competitive. The first contact most applicants make with potential employers is through their cover letters and resumes. Would an employer spend 30 minutes reading a poorly written letter, when she could read a well-written one in just three minutes? An ability to write so that others can easily understand it is essential to finding a job in this field.

Points Deducted for Late Papers:

Papers submitted outside my office (349 O'Neill) after 1 p.m. but before 5 pm on the day it is due. -20 points

Papers submitted after 5 pm on FRIDAY, but before class the following Monday. -30 points

Papers after this without a letter from a doctor or the Dean of Students. -ALL points

ASSIGNMENTS

NOTE: ALWAYS keep a copy of written assignments in case one gets lost.

1. Take the Entry Knowledge Quiz

We are required to give a “survey of knowledge” at the start of this course. It will be on Blackboard next week and it consists primarily of questions from last year’s final exam. You are not expected to know all the answers (if you do, you do not belong in this course!).

2. Your Ecological Footprint and the PAT Impact Equation.

Directions for this assignment will be on blackboard. See the schedule for the due date.

3. Chapter Quizzes – 10 pts each.

Quizzes for each assigned chapter of the text are on <http://www.prenhall.com/chiras/>. These are open book quizzes that you do online. Quizzes for each week’s readings are due the following Monday at 12 noon. Quizzes will be emailed to the TA, Michelle St. Martin, at _____. Do let me know if you feel that the website has the wrong answer and thus graded you incorrectly. Last year we found two questions that were clearly wrong, but I wrote them and hopefully those have been fixed.

4. “Reviews” of Fieldtrips, Websites OR Videos – 40 pts each.

Summarize in **no more than two pages** one of the optional fieldtrips, an approved website, OR one of the videos on reserve in Rasmuson Library. You can mix and match to make a total of three reviews. These should be in the form of the classic 5-paragraph essay (posted on Blackboard). Email your synopses directly to Michelle by the date due.

a) Review one or both of the Optional Fieldtrips.

We have two optional fieldtrips in early September. IF you choose to take one or both of these, you can write a synopsis of one (or write two synopses for double credit). Briefly discuss what you learned, explain how it relates to natural resource management, then give a comment on what you thought of the trip’s value for NRM majors. One point will be deducted for each spelling error. These must be **no more than 2 pages**. Students can do both trips for credit. Please email them directly to our TA, as papers are more easily misplaced.

b) Website Reviews

These **must** be chosen from the list on the text website <http://www.prenhall.com/chiras/>. Click on the 9th edition when you get to the site, then go to any chapter and click on “web destinations” for a list of excellent websites dealing with that topic.

1. The citation: Give a) the website title; b) the organization that sponsors the site; c) the URL; and d) the date you found it. Use the following style:

“Keeping the Kenai Healthy.” Kenai Watershed Forum. <http://www.kenaiwatershed.org/> Accessed March 23, 2006.

“Sonoran Desert Conservation Plan.” Pima County AZ Planning Dept. <http://www.pima.gov/cmo/sdcp/> Accessed March 23, 2006.

2. A synopsis of the site, what it contains and its value to researchers and managers. Write in your own words, answering questions such as the following:

What is the website’s content about?

What is the site’s purpose (you may need to read between the lines for this).

How well does it fulfill its purpose?

Is the site sponsored by an advocacy group or a public agency?

Is the site unbiased? How did you judge this (what is your evidence?).

What types of information are available here? What types of problems does the site deal with? (eg. Forest planning, urban sprawl, watershed planning, smart growth, habitat conservation plans, etc.)

Give a few examples of things you learned on the site.

How does the information on the site relate to resource management?
What did you like about the site? Why?
What did you dislike about the site? Why?
How could the site be improved?

c) Video Reviews.

The following videos are available at the media desk at Rasmuson Library (the catalog # is in parentheses). You can review others if you email me information about them and obtain approval first. Be sure to include the title of the video at the top of your paper.

- **RACHEL CARSON'S SILENT SPRING** (VH-1645). Everyone should know about the courage Carson had in researching and publishing that book. It still took 10 years to ban DDT in the US. She knew how to question authority, but did so with integrity.
- **THE WILDERNESS IDEA: WILD BY LAW** (VH-1408) about Aldo Leopold, Bob Marshall, and Howard Zanhiser. The Leopold part is the best, in my opinion, and since we will be talking about him much of this semester, that is a good one to see.
- **TAKING STOCK** (VH-4885). A powerful film about fishing, discusses the collapse of one of the world's largest fisheries: the cod fishery off the coast of Newfoundland. Fishing closed in 1992 and has not yet reopened.
- **THE FUTURE OF FOOD** (DVD-1807). The disturbing truth behind the unlabeled, patented, genetically engineered crops we are increasingly dependent on. THE FUTURE OF FOOD examines the complex web of market and political forces that are changing what we eat as huge multinational corporations seek to control the world's food system. The film also explores alternatives to large-scale industrial agriculture, placing organic and sustainable agriculture as real solutions to the farm crisis today.
- **THE GREAT DANCE** (VH-6115). This film was damaged last year but hopefully it is back in stock. The film follows a group of !Xo San in the central Kalahari Desert in Africa, focusing on the intimate relationship between their lives, the land and the animals they hunt. Join Karoha as he literally runs down a kudu, tracking in 120°F heat, until man or animal must collapse from exhaustion. "To hunt kudu," he says. "I think like kudu. I become Kudu." This fascinating film was made to raise money to buy land so that these people can continue their ancient way of life.
- **THE JOURNEY OF MAN** (VH-6790). A history of our species' migrations out of Africa. How did the human race populate the world? A group of geneticists have worked on the question for a decade, arriving at a startling conclusion: the "global family tree" can be traced to Africans tribesmen who lived 60,000 years ago. Dr. Spencer Wells of Stanford hosts this innovative series, featuring commentary by expert scientists, historians, archaeologists, and anthropologists.

5. A Sand County Almanac (SCA) discussions and essays

5a) SCA Discussion Sessions

On three Fridays we will have discussion sections on *A Sand County Almanac*. These sessions provide an opportunity for student participation and discussion of this influential work and they are spaced two weeks apart so that we have time to grade the papers before you write your next one. You will have the same room and the same group leader for all three sessions. In the next few weeks, we will assign each student to a group and a room.

Attendance is taken at each discussion session. **You must be present within the first 10 minutes of class and remain the rest of the period to be counted.** If you do not know where the room is, please try to find it in advance so you do not miss the first session. If you do miss one, it will not be possible to "make-up" the points for attendance. However, you can still complete the reflection paper, subject to the late paper policy described below (i.e. no extra time is given if you miss the discussion session, UNLESS you were seriously ill). We may not have room assignments until late September.

5b) Three Essays based on SCA

The grading criteria and directions for each of the essays will be passed out before the first discussion session.

Tests & Final Exam

There will be two tests and one comprehensive final exam. Each of these will include about 30 true/false questions, several multiple choice and a few short answer questions. Dates for tests and the exam are given on the course schedule.

Questions on Test Scores

An opportunity for students to discuss questions regarding a test score will be provided, subject to the following guidelines. Please do **not** discuss the score after class. I can be surrounded by a dozen students pleading for points and this isn't fair to any of us. Instead, do the following:

Write the number of the question on the back of the test and explain why you feel you deserve more points for it, then turn it in.

I will look these over and correct any problems. When you get your corrected test back, if you still have concerns, please make an appointment to discuss it with me. However, an appointment to discuss a particular test must be made within one week after I have checked it. Do NOT wait until the end of the semester to bring such problems to my attention.

No Early Final Exams

Early final exams are not allowed (an airline ticket is not an excuse for missing the final exam). However, if you have 3-4 exams in one day, provide proof and if possible, we will allow you to take the final exam at a later time.

Missed Test Policy

This policy is an effort to be fair to those who did take the test on time and who have complained in the past that they, too, would have liked extra time to study (or sleep, etc...).

Sports Teams. If you are on a team that requires you to miss a test, you must have an excuse signed by your coach and make arrangements with me to take the test as soon as you return.

Other reasons. Legitimate problems do happen, but sleeping through the test, getting caught in a blizzard that mysteriously occurred only at your house, being detained by aliens, etc. do NOT constitute reasons to take the test late!

Illness. Anyone absent due to *severe* illness must write me an email as soon as possible (preferably before the quiz) and make it up as soon as possible.

Other. Any other excuse must be signed by the Dean of Students—preferably *before* the test, but at the latest during or before the next class period following the test.

NO OTHER EXCUSE WILL BE ACCEPTED.
