



## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

University of Alaska Fairbanks

COLLEGE OF NATURAL SCIENCE & MATHEMATICS

# Syllabus

TITLE: Natural Resources Conservation and Policy

NUMBER: NRM 101

CREDITS: 3

PREREQUISITES:

LOCATION: Irving 1 201; online

MEETING TIME: 10:30 to 11:30 a.m. MWF

COURSE TYPE: F2F and online synchronous

INSTRUCTOR: Dr. Peter J Fix

OFFICE LOCATION: 323 O'Neill; contact by email

OFFICE HOURS: M & W 3 to 4:30

TELEPHONE: 474-6926

EMAIL ADDRESS: [pjfix@alaska.edu](mailto:pjfix@alaska.edu)

TEACHING ASSISTANT: Michelle Kelley

OFFICE LOCATION: Distance, reach via email

OFFICE HOURS: n/a

TELEPHONE: n/a

EMAIL ADDRESS: [mkelley11@alaska.edu](mailto:mkelley11@alaska.edu)

## COURSE DESCRIPTION

### Catalog listing

Conservation of natural resources including history, ecological and social foundations. Examines principles of sustained yield, carrying capacity, supply and demand, and world population growth as applied to agriculture, range, forest, wildlife, fisheries, recreation, minerals and energy management. A wide range of perspectives is presented to help students develop a personal philosophy toward natural resources. Prepare a multiple resource observation plan for an undeveloped area on campus. Optional all-day field trips take place the first two Saturdays of the semester. *Note, this catalog description is somewhat outdated.*

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### **Additional course description**

Natural resources form the basis of human existence, from food and shelter to non-essential goods we consume. While there are differing perspectives on the appropriate relationship between humans and the environment, there is a need to manage (even deciding to “leave alone” requires management actions). Lessons from the past have resulted in more sustainably managed natural resources, and perspectives on sustainability continue to evolve. This course will cover the historical aspects of natural resource conservation, current aspects of conservation, and explore case studies of current conservation issues faced by society.

### **COURSE GOALS**

- Historical aspects of conservation
- Understanding the terminology: preservation, conservation, etc.
- Introduction to contemporary thoughts/practices: ecosystem services, sustainability, adaptive management
- Brief introduction to economics
- Key agencies involved in conservation
- AK natives: ANCSA, Native corporations and resource mgt.
- Key environmental laws

### **STUDENT LEARNING OUTCOMES**

After completion of this course, students will:

- Correctly identify the key events forming the foundations of the modern conservation era, as well as key environmental laws
- Accurately discuss the recent developments in the conservation field (e.g., resilience, adaptive management)
- Articulate the differences among natural resource management agencies, including the role they play in natural resources conservation and policy
- Apply critical thinking skills to contemporary conservation issues, applying course principles

### **COURSE READINGS/MATERIALS**

We will use two text books for this course.

Sparling, D. W. (2014). *Natural resource administration: wildlife, fisheries, forests, and parks*.

Waltham, MA: Elsevier, Inc. ISBN: 978-0-12-404647-4

Carolan, M. (2018). *Society and the environment*. 2<sup>nd</sup> ed. New York: Routledge.

### **TECHNICAL REQUIREMENTS FOR COURSE**

Students must have regular access to a computer and the Internet to access online materials in Blackboard. Students will be expected to download course material as well as upload assignments. If attending online, adequate bandwidth will be necessary. Although a camera is not required, it will add to the ability to participate in discussions.

### **INSTRUCTIONAL METHODS**

The course will consist of a combination of lectures, case studies and discussions. The class is a “hybrid” class, meaning students have the option of attending in person, or via synchronous distance delivery.

## COURSE CALENDAR

The general schedule is below. A detailed calendar, with daily tasks and assignments, is included at the end of the syllabus. Note, topics might change.

Week	Topics
<b>Part I: History/Foundations of Natural Resources Conservation</b>	
Week 1	Introduction to NRM <ul style="list-style-type: none"> <li>• Key terms</li> <li>• Preservation vs. conservation</li> <li>• Contemporary terminology (ecosystem services, sustainability, adaptive management)</li> <li>• Readings: Sparling introduction and Ch. 1; additional readings posted to blackboard</li> </ul>
Week 2	History of conservation <ul style="list-style-type: none"> <li>• Pre-European North America through European incursion</li> <li>• Myth of superabundance and manifest destiny</li> <li>• The move towards conservation</li> <li>• Readings: Sparling Ch. 2; additional readings posted to blackboard</li> </ul>
Week 3	Tragedy of the commons & perspectives on ownership of wildlife <ul style="list-style-type: none"> <li>• Readings: Sparling Ch. 3; additional readings posted to blackboard</li> </ul>
Week 4	Key environmental laws <ul style="list-style-type: none"> <li>• NEPA, Clean Water Act, ESA, etc.</li> <li>• Current status of environmental laws</li> <li>• ANCSA &amp; ANILCA</li> <li>• Readings: Sparling Ch. 4; additional readings posted to blackboard</li> </ul>
<b>Part II: Administration of Natural Resources</b>	
Week 5	U.S. Department of the Interior <ul style="list-style-type: none"> <li>• BLM, NPS, FWS, USGS, BoR, BIA, BOEM, OSM</li> <li>• Current status of DOI agencies</li> <li>• Readings: Sparling Ch. 6; additional readings posted to blackboard</li> </ul>
Week 6	U.S. DOI, <i>continued as needed</i> U.S. Department of Agriculture <ul style="list-style-type: none"> <li>• USFS, NRCS</li> <li>• Current status of USDA agencies</li> <li>• Readings: Sparling Ch. 7; additional readings posted to blackboard</li> </ul>
Week 7	Native Corporation in Alaska <ul style="list-style-type: none"> <li>• Readings: readings posted to blackboard</li> </ul> State management of natural resources <ul style="list-style-type: none"> <li>• Readings: Sparling Ch. 8; additional readings posted to blackboard</li> </ul> NGOs <ul style="list-style-type: none"> <li>• Readings: Sparling Ch. 9; additional readings posted to blackboard</li> </ul>
<b>Part III: Contemporary Issues in Natural Resources Conservation</b>	
Week 8	Climate change <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 2; additional readings posted to blackboard</li> </ul>
Week 9	Waste <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 3; additional readings posted to blackboard</li> </ul>
Week 10	Biodiversity <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 4; additional readings posted to blackboard</li> </ul>
Week 11	Population <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 6; additional readings posted to blackboard</li> </ul>
Week 12	Water <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 5; additional readings posted to blackboard</li> </ul>
Week 13	Sustainable Agriculture <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 8; additional readings posted to blackboard</li> </ul>
Week 14	Transportation <ul style="list-style-type: none"> <li>• Readings: Carolan Ch. 7; additional readings posted to blackboard</li> </ul>

## COURSE POLICIES

You are expected to not only attend every class but to have read the materials assigned for that day (of course illness, family emergencies, travel for sports are an exception). Late assignments are accepted for reasons of illness or other unavoidable situation (e.g., family emergency). Notify me as soon as possible if you need to miss a class or have circumstances that result in a late assignment.

As part of this course, you will be asked to participate in discussion forums in Blackboard. Your posts will be visible to those in the class, but not the general public. You will also be required to participate in class discussions.

## EVALUATION POLICIES

Your grade will consist of attendance, weekly quizzes, six short written assignments, weekly discussion posts, seven class discussions, and three exams. The points assigned, total points, and weight are shown below. Note, the weight is what I will use to calculate the final score, for example, the total points of the exam are 20% of the total points, but will make up 25% of the final grade. Due to the mixed modality, I have slightly weighted down the class discussion component; however, the class discussion is definitely important. (Note, the weights are used to even out the components of the grade without adjusting the point values.)

Component	Total #	Pts per	Total points	Percent of total	Weight assigned
Attendance	42	2	80*	4%	4%
14 quizzes	14	40	560	27%	25%
6 written assignments	6	50	300	15%	15%
14 discussions posts	14	40	560	27%	25%
Class discussion	7	20	140	7%	6%
3 exams	4	100	400	20%	25%
Total points			2040		

\*Allows for 2 unexcused absences.

Class attendance is scored as 2 points per class period in attendance. Quizzes will be scored based on the correct answer as indicated in the class notes. Written assignments and discussion posts will be graded on critical thinking (50% of the grade) and writing (50% of the grade). Rubrics are posted below. Class discussion will be based on presenting ideas and responding thoughtfully and respectfully to others, rubric posted below. Exams will be scored based on the correct answer as indicated in the class notes.

	General Letter Grade (specific points will be determined based on the degree meeting the standards for the letter grade)			
	A	B	C	D
<b>Critical thinking</b>	Issue/problem clearly & comprehensively stated; position is soundly supported; problem identified and supporting material correctly follow from lecture materials, and is creative in identifying an application.	Issue/problem statement not seriously impeded by omissions; position is adequately supported; problem identified and supporting material follow from lecture materials with few errors, and application is moderately novel.	Issue/problem statement not fully developed; position has weak support; problem identified and supporting material loosely follow from lecture materials with some errors, and/or application lacks novelty.	Issue/problem statement lacks clarity; position has weak support; problem identified and supporting material loosely follow lecture materials but contain several key errors, and/or application lacks novelty.
<b>Written Comm. for discussion post</b>	Clear, error-free language; language is professional in tone; response to posts is constructive, relevant, respectful, and contributes to the class's understanding of the topic.	Clear, language, but may contain some errors; language is professional in tone; response to posts is constructive, relevant, respectful, and moderately contributes to the class's understanding of the topic.	Language contains errors and is difficult to follow; response to posts contains some extraneous material that limits the contribution to the class's understanding of the topic.	Language contains errors and is difficult to follow; response to posts mostly irrelevant with limited contribution to the class's understanding of the topic.
<b>Written Comm. for written assignments</b>	Clear, error-free language; highly effective organization. Arguments are clearly identified. No extraneous material. Cited as appropriate.	Clear, language, but may contain some errors; effective organization. Arguments are clearly identified, might contain some extraneous material. Cited as appropriate.	Language contains errors and is difficult to follow; organization limits presentation of arguments, contains irrelevant material. Inconsistent citations.	Language contains errors and is difficult to follow; arguments are not clear; lacks organization and does not cite sources.
<b>Class Discussion rubric</b>	Comments are relevant to topic being discussed, provide novel thoughts, and are clear; respectful of others' opinions.	Comments at times are slightly off topic, some gaps in critical thinking, clearly stated; respectful of others' opinions.	Comments at times slightly off topic, often gaps in critical thinking, clarity could be improved; respectful of others' opinions.	Comments at times slightly off topic, often gaps in critical thinking, lacks clarity; disrespectful of others' opinions.

Plus and minus grading will be used, cut off for grades are as shown below.

Requirements for letter grade				
A + > 96%	B+ 87 to 89	C+ 77 to 79	D+ 67 to 69	F < 60%
A 93% to 96	B 83 to 86	C 73 to 76	D 63 to 66	
A- 90% to 92 <sup>a</sup>	B- 80 to 82	C- 70 to 72	D- 60 to 62	

“C” (including C+ and C-) indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.

C- (1.7) is the minimum acceptable grade that undergraduate students may receive for courses to count toward the major or minor degree requirements, or as a prerequisite for another course. A minimum grade of C (2.0), however, MAY be required by specific programs for prerequisite and/ or major / minor courses. Please consult specific program listings in the UAF Catalog.

C- (1.7) is the minimum acceptable grade required for all Core (X) Courses.

“D” (including D+ and D-) indicates a minimal level of acquired knowledge and minimal performance in completion of course requirements. This grade does not satisfy requirements for courses in the major, minor, Core, or graduate programs.

## ACADEMIC INTEGRITY

As described by UAF, scholastic dishonesty constitutes a violation of the university rules and regulations and is punishable according to the procedures outlined by UAF. Scholastic dishonesty includes, but is not limited to, cheating on an exam, plagiarism, and collusion. Cheating includes providing answers to or taking answers from another student. Plagiarism includes use of another author's words or arguments without attribution. Collusion includes unauthorized collaboration with another person in preparing written work for fulfillment of any course requirement. Scholastic dishonesty is punishable by removal from the course and a grade of “F.” For more information go to [Student Code of Conduct](#).

## EXPLANATION OF NB/I/W GRADES

**This course adheres to the UAF regarding the granting of NB Grades** *The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.*

### **Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy:**

“The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student's control, such as sickness, he has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.”

**Successful, timely completion of this course depends on committing yourself early and maintaining your effort.** Failure to submit assignments in a timely manner may result in faculty-initiated Withdrawal from the course, which can result in a **W** on your transcript.

## INSTRUCTOR RESPONSE TIME

I will typically respond to emails sent during the day within a few hours. However, emails sent after 5 p.m. may not be answered until the next day. While I do check email on weekends, there are some weekends in which I do not check email. Quizzes and exams are in Blackboard and will be graded automatically (unless there are questions with essay responses). I will return written assignments within a week, hopefully sooner.

## HOW TO CHECK YOUR GRADE

To check your grades for assignments/quizzes and find comments from your instructor, click on the My Grades link in the sidebar menu. All assignments and any due dates are listed.\* If your instructor has left overall assessment comments, Click on the speech bubble icon to view overall comments and feedback.

If the score is for a test or quiz, the title of the test is a link. Then click on the check mark or your score to see results and feedback.

If the score is for an assignment, the title of the assignment is a link and by clicking this link you'll be taken to your submission, grade and comments.

If you see a green exclamation point, your assignment has not been graded yet.

\*The assignments and due dates might not be listed until the beginning of the second week of classes.

## EXPECTATION OF STUDENT EFFORT

The expectations for a 3-credit lecture course are 3 hours of in-class meeting time (i.e., lecture) and 6 hours of work outside of class (course readings, assignments).

## STUDENT PROTECTIONS STATEMENT

UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: <https://catalog.uaf.edu/academicsregulations/students-rights-responsibilities>.

I will work with the [Office of Disability Service](#) to provide reasonable accommodation to students with disabilities. Contact information: [uaf-disability-services@alaska.edu](mailto:uaf-disability-services@alaska.edu)  
Phone: 907.474.5655 or TTY: 907.474.1827 or Fax: 907.474.5688

## SUPPORT SERVICES

Go to the Student Handbook ([www.uaf.edu/handbook](http://www.uaf.edu/handbook)) for things like: academic advising, tutoring, library and academic support, disability services, computing and technology, veteran and military support, academic complaint and appeals, late withdrawals, "classroom" behavior expectations and more.

### UAF eCampus Student Services

Helps students with registration and course schedules, provides information about lessons and student records, assists with the examination process, and answers general questions. Our Academic Advisor can help students communicate with instructors, locate helpful resources, and maximize their distance learning experience. Contact the UAF eCampus Student Services staff at 907.455.2060 or toll free 1.800.277.8060 or contact staff directly with our [directory listing](#).

### **UAF Help Desk**

Go to <http://www.alaska.edu/oit/> to see about current network outages and technology news.  
For technical questions, contact the Help Desk at:

- e-mail at [helpdesk@alaska.edu](mailto:helpdesk@alaska.edu)
- phone: 907.450.8300 or 1.800.478.8226

### **Tutorial and academic support**

Students who have difficulties with oral presentations, mathematics and/or writing are strongly encouraged to get help from:

- [UAF Speaking Center](#) (907.474.5470, [speak@uaf.edu](mailto:speak@uaf.edu))
- [UAF Writing Center](#) (907.474.5314, Gruening 8th floor)
- [UAF Math Services](#)
- [Debbie Moses Learning Center at CTC \(907.455.2860\)](#) (604 Barnette St, 907.455.2860).

### **NOTICE OF NONDISCRIMINATION**

*(optional, but strongly suggested)* UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: [www.alaska.edu/nondiscrimination](http://www.alaska.edu/nondiscrimination).



Detailed Class Schedule *Note, adjustments will most likely be made throughout the semester*

Part 1				
	Date	Topic	Reading	Assignment
Week 1	24-Aug	Course introduction		
	26-Aug	Key terms; preservation vs. conservation	Sparling Introduction and Ch. 1 pg. 3 through pg. 13 up to "Sustainability"	
	28-Aug	Social ecological systems, sustainability, adaptive management.	Sparling Ch. 1, "Sustainability" to end	- Discussion post due before class: example of Social Ecological System - Quiz 1, due Sun. midnight
Week 2	31-Aug	History of conservation	Sparling Ch. 2 pg. 27 through pg. 41	
	2-Sep	History of conservation cont.	Sparling Ch. 2 pg. 41 "Seeds of Concern" through end; Pinchot reading posted to BB	
	4-Sep	History of conservation	TBA	- Discussion post due before class: classify the current era of conservation - Quiz 2, due Sun. midnight
Week 3	31-Aug	Labor Day, no class.		
	9-Sep	Tragedy of the commons	Video posted to BB Sparling Ch 3. through pg. 63 "Pillars of Federal law"	- Written assignment: example of tragedy of the commons, due Sept 14 before class
	11-Sep	Pillars of Federal law	Sparling Ch 3. pg. 63 "Pillars of Federal law" through end; Bundy case study posted to BB	- Discussion post due before class: Bundy case study - Quiz 3, due Sun. midnight
Week 4	14-Sep	Key environmental laws - ESA	Sparling Ch 4 through pg. 91	
	16-Sep	Key environmental laws - Others	Sparling Ch 4 pg. 92 through end; readings posted to BB	
	18-Sep	Key environmental laws – current status	Current status readings posted to BB, TBA	- Discussion post due before class: current status of env. laws case study - Quiz 4, due Sun. midnight - Exam 1, due Sun. midnight

PART II				
	Date	Topic	Reading	Assignment
Week 5	21-Sep	Department of Interior – overview, land mgt. agencies (FWS, NPS, BLM)	Sparling Ch. 6 through pg. 159	
	23-Sep	DOI – USGS, BIA, BOEM	Sparling Ch. 6 pg. 160 through end	- Written assignment, what agencies are involved in ANWR or Ambler Road TBA, due Sept. 30 before class
	25-Sep	DOI – BOR	View Cadillac Desert (TBA, if we can pull this off)	- Discussion post due before class: Cadillac Desert, TBA -Quiz 5, due Sun. midnight
Week 6	28-Sep	USDA – Forest Service	Sparling Ch. 7 through pg. 186	
	30-Sep	USDA – NRCS	Sparling Ch. 7 pg. 186 “NRCS” through end	
	2-Oct	Current status of Federal agencies	BLM case study, posted to BB, TBA	- Discussion post due before class: current status of federal agencies: BLM case study -Quiz 6, due Sun. midnight
Week 7	5-Oct	Native Corporations in Alaska	ANCSA & ANLCA readings posted to BB	- Written Assignment: research one AK Native Corporation, due Oct. 12 before class
	7-Oct	State management	Sparling Ch. 8	
	9-Oct	NGOs	Sparling Ch. 9; case study posted to BB, TBA	- Discussion post due before class: case study TBA - Quiz 7, due Sun. midnight -Exam 2, due Sun. midnight

PART III				
	Date	Topic	Reading	Assignment
Week 8	12-Oct	Climate change	Carolan Ch. 2 Fast Facts and Implications; readings posted to BB	
	14-Oct	Climate change	Carolan Ch. 2 Solutions to end; readings posted to BB	- Quiz 8 on case study posted to BB, due before class
	16-Oct	Climate change	Class discussion on solutions	- Discussion post due before class: thoughts on “solutions”
Week 9	19-Oct	Waste	Carolan Ch. 3 Fast Facts and Implications; readings posted to BB	- Written assignment: research one waste issue, due Oct 26 before class
	21-Oct	Waste	Carolan Ch. 3 Solutions to end; readings posted to BB	- Quiz 9 on case study posted to BB, due before class
	23-Oct	Waste	Class discussion on solutions	- Discussion post due before class: thoughts on “solutions”

Week 10	26-Oct	Biodiversity	Carolan Ch. 4 Fast Facts and Implications; readings posted to BB	
	28-Oct	Biodiversity	Carolan Ch. 4 Solutions to end; readings posted to BB	- Quiz 10 on case study posted to BB, due before class
	30-Oct	Biodiversity	Class discussion on solutions	- Discussion post due before class: thoughts on "solutions"
Week 11	2-Nov	Population	Carolan Ch. 6 Fast Facts and Implications; readings posted to BB	
	4-Nov	Population	Carolan Ch. 6 Solutions to end; readings posted to BB	- Quiz 11 on case study posted to BB, due before class
	6-Nov	Population	Class discussion on solutions	- Discussion post due before class: thoughts on "solutions"
Week 12	9-Nov	Water	Carolan Ch. 5 Fast Facts and Implications; readings posted to BB	- Written assignment: research one water issue, due Nov. 16 before class
	11-Nov	Water	Carolan Ch. 5 Solutions to end; readings posted to BB	- Quiz 12 on case study posted to BB, due before class
	13-Nov	Water	Class discussion on solutions	- Discussion post due before class: thoughts on "solutions"
Week 13	16-Nov	Sustainable ag	Carolan Ch. 3 Fast Facts and Implications; readings posted to BB	
	18-Nov	Sustainable ag	Carolan Ch. 3 Solutions to end; readings posted to BB	- Quiz 13 on case study posted to BB, due before class
	20-Nov	Sustainable ag	Class discussion on solutions	- Discussion post due before class: thoughts on "solutions"
Week 14	23-Nov	Transportation	Carolan Ch. 7 Fast Facts and Implications; readings posted to BB	- Written assignment: research one transportation issue, due Nov. 30 before class
	25-Nov	Thanksgiving Break	NO CLASS	
	27-Nov	Thanksgiving Break	NO CLASS	
Week 15	30-Nov	Transportation	Carolan Ch. 7 Solutions to end; readings posted to BB	- Quiz 14 on case study posted to BB, due before class
	2-Dec	Transportation	Class discussion on solutions	- Discussion post due before class: thoughts on "solutions"
	4-Dec	Tying it all together	Class discussion	- Exam on Part III, due Sun. midnight
	9-Dec	Final Exam Period 10:15 a.m. to 12:15 p.m.		Final exam due (comprehensive)