

NRM 403, Environmental Decision Making
Course Syllabus, Fall Semester 2017
9:45-11:15 AM Tuesdays & Thursdays, AHRB 183

Instructors:

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Office Hours: We maintain “open door” policies to maximize student access. If you have trouble finding us, feel free to make an appointment.

NRM 403 is an upper division, capstone class. The emphasis is on discussion and active learning, **not** lecture and passive learning. Class participation is a substantial portion of your final grade, and depends on both your presence in class and the quality of your participation. More than two absences will reduce your class participation grade. Participation quality depends on active participation in discussions, thoughtful comments, and good questions. Effort counts here. We will do all we can to provide the atmosphere necessary for fun and challenging discussions.

NRM 403 meets Oral- and Writing-intensive requirements, reflecting our emphasis on clarity of communication. Although some new information will be presented, the emphasis will be on improving how you synthesize and work with information you already have, e.g., from previous courses.

Disabilities: If you have a physical or learning disability, please advise the course coordinator in writing of any necessary special consideration by the beginning of the 2nd week of class. We will do everything reasonable possible to accommodate you in accordance with the Americans with Disabilities Act and university policy.

E-mail: We occasionally will need to contact you between class periods via Blackboard e-mail. If you prefer to use a different e-mail address, you will need to set up e-mail forwarding.

Technology Policy: Use of laptops, phones, tablets, and other devices are prohibited during class unless specifically permitted by the instructors.

Course goal: Provide the student with the tools necessary to make natural resource management decisions in the face of complexity, uncertainty, and competing values and to enhance students' critical thinking skills. By the end of this course, you should be able to:

- **Articulate and apply the foundations** (science, economics, ethics/values, and policy) upon which natural resource management decisions are made.
- **Apply critical thinking skills** when evaluating information and be able to distinguish between fact, theory, and opinion.
- Independently **find reliable sources of information** to support positions in natural resource issues.
- **Deliver clear analysis and persuasive presentations**, both orally and in writing.
- **Discuss and use a variety of techniques** employed by resource managers in decision-making.
- **Gain perspective** (“big picture” sense) on perspectives (“points of view” sense).

Blackboard: This course will make extensive use of Blackboard (<http://classes.uaf.edu>) for archiving class notes and reading materials, submitting assignments, coordinating activities with project group members, retrieving grades, and updating your course progress. Please check it regularly for announcements and updates.

Textbook: Conroy, MJ & JT Peterson. 2013. Decision making in natural resource management: A structured, adaptive approach. Wiley-Blackwell, Hoboken, NJ. 474 pp.

Assignment submission: All assignments **MUST** be turned in using Blackboard's assignment submission tool. **DO NOT** use any other means of submission (e.g., e-mail). Assignments received by email will receive the response that the assignment must be handed in on blackboard. Late assignments will be penalized 10% of the assignment value per day.

Issues: The instructors and invited guests will present current, controversial natural resource issues and cases that will highlight the foundations of decision-making in natural resources management. The issues are complex, with “good” answers, “bad” answers, but no “right” answers. We encourage you to present your perspective energetically and rationally while challenging (politely) those you disagree with (including ours). We welcome (and occasionally offer) “devil's advocate” arguments as a way to challenge assumptions. **Your grade does not depend on what conclusions you reach, but rather on how you reach those conclusions.**

Grading: Letter grades will be assigned based on the fraction of total points obtained in the class: 90-100 = A, etc. We will assign + or – modifiers for scores within 2 points of the letter grade cutoffs. All grades and feedback for assignments will be provided via the gradebook feature on blackboard.

See “**NRM 403 Course Schedule**” for an overview of topics, events, assignments, and points associated with assignments. We are reasonably proficient with various tools to detect plagiarism, which is a serious violation of the UAF honor code that merits a failing grade.

Date	Topic	Reading	Assignment due	Points- Written	Points- Oral
29-Aug	Introduction, critical thinking, communication [1]		Final project (FP) preference		
31-Aug	Foundations, Pebble mine exercise	Ch. 1, AK NP example	Plagiarism tutorial results	5	
5-Sep	SDM & ARM, uncertainty	Ch. 2			
7-Sep	Defining problems, setting objectives				
12-Sep	Class exercise: FP Problem definitions, objectives				
14-Sep	Economics, Utility Functions	Ch. 3	Topic descriptions (group)	20	
19-Sep	Stakeholders	Ch. 4			
21-Sep	Pete Fix, Attitudes, behavior				
26-Sep	Student presentations: SH positions		FP SH position (individual)	30	30
28-Sep	Chanda Meek, policy example	Fish papers			
3-Oct	Student presentations: fish		Fisheries critiques	30	30
5-Oct	Student presentations: fish				
10-Oct	Statistics & decision making	Ch. 5			
12-Oct	Decision tools	Ch. 6			
17-Oct	ID & reduce uncertainty	Ch. 7	FP outline (group)	30	
19-Oct	Case studies	Ch. 9			
24-Oct	Case study 1 [2]	TBD			
26-Oct	Case study 1 discussion	Energy papers	CS 1 critiques	10	
31-Oct	Student presentations: energy		Energy critiques, oral & written	30	30
2-Nov	Student presentations: energy		FP rough draft (group)	50	
7-Nov	Case study 2 [3]	TBD	FP rough powerpoint (group)	25	
9-Nov	Case study 2 discussion		CS 2 critiques	10	
14-Nov	Case study 3 [4]	TBD			
16-Nov	Case study 3 discussion		CS 3 critiques	10	
21-Nov	FP Group meetings				
23-Nov	NO CLASS: Thanksgiving				
28-Nov	Student presentations: FP		FP final version	100	100
30-Nov	Student presentations: FP				
5-Dec	Student presentations: FP				
7-Dec	Student presentations: FP, course wrap up	Ch. 10	FP evaluation	10	
			Class Participation		100
			Course evaluation	10	
Subtotal				370	290
			Total		660