

Society & Natural Resources (FNR 3602)

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Meeting Time and Location

Class will be held in person Tuesdays, 5:00 PM – 8:00 PM, rm 482, bldg. 4800

Course Description

Local-to-global and individual-to-institutional perspectives on natural resource values, sustainability, diversity, and social change help reveal potential paths for working within complex human and natural resource systems.

Course Overview:

Society and social systems play critical roles in natural resource planning and management. Public resources are managed under policies that are established by decision makers on behalf of the public. Private resources are managed to maximize landowner objectives, and these often reflect social constraints, such as market influences, neighbor tolerance, and public policies.

This course is a **Social and Behavioral Sciences** general education course and provides a foundation for understanding how society influences the management of natural resources. The emphasis of the course is on integrating social science in natural resource decision-making and on thinking critically and analytically. The assignment will help you practice research and communication skills that should help you address natural resource conflicts and work with the public and policymakers to solve natural resource problems.

The world is on the cusp of considerable change. Making good decisions in the context of the coming opportunities will require that we consider different perspectives and needs, rights and responsibilities, economic development and livelihoods, community and personal well-being, and ecosystem continuity. This course will help give you some perspectives and skills for approaching these elements of sustainability.

Course Organization:

Part I: Understanding Human Impact on the Environment

This overview explores how people's behaviors, cultures, and organizations influence the natural world. This includes looking at how these relationships have changed over time and how they vary across different countries and communities.

Part II: Natural Resource Sustainability – Attitudes, Norms, and Behavioral Change

This section focuses on how people form attitudes about the environment and how social norms shape behavior. We'll learn practical strategies—like education, communication, and social influence—that can help shift attitudes and promote sustainable actions.

Part III: Community Sustainability: Using Social Values in Natural Resource Management & Decision-making

Here, we look at how communities make decisions about natural resources and environmental issues. Topics include how to handle conflict, involve the public in decision-making, work together effectively, and understand the social impacts of environmental policies.

Student Learning Outcomes:

By the end of this course, students will be able to:

1. Know key themes, principles, and terminology related to society and natural resources.
 - a. Be able to correctly use terms, such as sustainability, systems thinking, collaboration, conflict management, stakeholders, governance, and land tenure to analyze natural resource issues.
2. Know theory and methodologies related to society and natural resources.
 - a. Describe how collaboration creates more acceptable decisions.
 - b. Explain how individuals and communities change norms and behaviors.
 - c. Describe major theories related to human behavior and sustainability such as Theory of Planned Behavior, Diffusion of Innovation, social marketing, values, and attitudes.
3. Identify, describe, and explain social institutions, structures, and processes that guide natural resource decision-making.
 - a. Differentiate and describe the major natural resource agencies, organizations and decision-makers in the U.S.
 - b. Discuss and explain the issues and opportunities for natural resource management outside the U.S.
 - c. Describe current multilateral environmental agreements, agencies, and organizations that support efforts toward sustainability.
4. Analyze the processes of how individuals and organizations make personal and group decisions related to the management and use of natural resources.
 - a. Use systems thinking to understand natural resource conflicts, situations, and opportunities.
 - b. Evaluate stakeholder perspectives in the context of natural resource conflicts.
5. Assess and analyze perspectives of ethics and justice in individual and societal decisions related to the management and use of natural resources.

- a. Explain the ethical principles related to sustainability and apply them to class cases.
- 6. Communicate knowledge, thoughts, and reasoning clearly and effectively.
 - a. Recognize and effectively use outreach tools that can help change behaviors.

Texts and Materials:

There is no textbook for this course. All course readings will be available electronically through Canvas and are referenced at the end of the syllabus.

Course Logistics:

There will be weekly lectures followed by a discussion of the topic presented in that evening's lectures and that week's lectures. The readings listed for each week must be completed prior to that week's class. For example, the readings listed for August 26 are to be completed prior to class on Aug 26th as they will be discussed that evening. Students are expected to participate in discussion and will be given a participation grade for each discussion that is based on the quality of their contributions. A participation points rubric is available on Canvas.

Description of Assessments and Activities:

Participation

You must participate in all aspects of this course to get full credit. Specifically, participation will be graded on the following criteria:

1. Class attendance. Missed classes will not be counted against you if you provide an appropriate, relevant, written excuse. If you know you can't attend one discussion, you may make arrangements with the instructor to make up the work.
2. Preparation for class through **active** participation during discussions.
3. Class conduct (e.g., arriving on time, contributing to class discussions, no disruptive behavior, and no irrelevant activity: e.g., sleeping, reading, texting).

Students are expected to attend class and submit assignments on time. If you have an accommodation and require additional resources or time, please make sure we are aware of that and provide what you need. If you know you will be absent because of work, conferences, or important family events, please communicate with your instructor and make arrangements to obtain class notes from a peer and submit assignments in advance. If you are absent for illness or accident, please communicate with your instructor as soon as possible, make arrangements to obtain class notes, and negotiate a new due date for your assignment and/or quiz. Any other absences will be unexcused and will reduce your

class participation score. Any late assignments will be docked 3% per day late unless you explain extenuating circumstances and negotiate an alternative.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Quizzes

You are expected to attend all lectures and read all assigned materials on your own, on a weekly basis, in preparation for class discussions. The articles and chapters chosen for your reading packet provide a wealth of information that will supplement the information provided in the lectures. To assist with your understanding and aid you in keeping up with the pace of class, quizzes have been developed to ensure you identify relevant points from the lectures and readings and apply them to current issues. These are available on Canvas (under the quiz section). Quizzes will be due bi-weekly, for a total of 7 quizzes. Late quizzes will not be accepted except for excused absences as stated above.

Exams

This course has two in-class exams. The in-class exams will help you review topics covered throughout the semester and test your ability to apply those concepts to various case studies. They will be composed of multiple choice and short answer questions and will cover materials and concepts in the class readings as well as lectures.

Assignment

Analyze and Discuss a Natural Resource Management Issue: You will be responsible for a multi-part assignment that will facilitate your learning of the concepts, skills, and strategies highlighted in lectures and discussion.

Objective: To enhance critical thinking and communication skills by researching, discussing, and presenting a natural resource issue relevant to local or global contexts from a particular perspective. Develop research and analytical skills and learn collaboration and communication skills necessary to solving real-world natural resource challenges.

Components: 1) Discussion Paper, 2) Viewpoint Brief, 3) Class Discussion, 4) Summary. Instructor will provide specific details for each component of the assignment in Canvas. All written assignments will be submitted to the Canvas website and be subject to Turnitin.

Grading

For information on current UF policies for assigning grade points, see UGRD

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Grad <https://catalog.ufl.edu/graduate/regulations/#text>

Grading Scale (%)

A 100% to 94%
A- 93.99% to 90%
B+ 89.99% to 87%
B 86.99% to 84%
B- 83.99% to 80%
C+ 79.99% to 77%
C 76.99% to 74%
C- 73.99% to 70%
D+ 69.99% to 67%
D 66.99% to 64%
D- 63.99% to 61%
E 60.99% to 0%

Points and percentages for each class activity		
Activity	Points	Percentage
Participation	140	16
Quizzes (7 x 20 pts.)	140	16
Exams		
Midterm	200	23
Final	200	23
Assignment		
Discussion Paper	40	6
Viewpoint Brief	60	6
Class Discussion	60	6
Summary	40	6
Total	880	100

Policies and Requirements

This course plan and syllabus are subject to change in response to student and instructor needs. Any changes will be clearly communicated in advance through Canvas.

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CALS and UF Policies, as well as academic and campus health and wellness resources can be reviewed at <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Communication Courtesy and Professionalism

Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. Respect for individual differences and alternative viewpoints will be maintained in this class at all times. All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Content

Date	Topics	Readings
Introduction: Why Social Science?		
Aug 26	Introduction to the human dimensions of natural resource management	Jacobson & McDuff; DeFries & Nagendra
Part I. Understanding Human Impacts on the Environment		
Sept 2	Roots of human-environment impacts; The problem of the commons	White; Catton; Ponting; Hardin; Walters
Sept 9	NR institutions and agency culture; Social equity and environmental justice	Kennedy & Thomas; Brunson; Simon; Harmon
Sept 16	Profit-driven natural resource management	Brechin & West; Stoll-Kleeman & O'Riordan; Tear & Forester
Sept 23	Resource dependency & environmental restoration; Ecosystem management	Wilson; Gilmore; Schelhas et al.
Part II. Natural Resource Sustainability: Attitudes, Norms, and Behavior Change		
Sept 30	Attitudes, beliefs, and preferences	Manfredo et al. 1995; Manfredo et al. 1990; Bath
Oct 7	Changing attitudes; Communication & persuasion strategies	Stern 2018; Cole et al.; Heberlein 1992; Oliver et al.; Widner & Roggenbuck; Wirsching et al.; Fox
Oct 14	<i>Midterm exam</i>	
Oct 21	Behavior modification & incentives; Cultural values, norms & depreciative behavior	Heberlein 1974; Pryor; Nickerson; Meeker; Prettyman
Oct 28	Social influence; formal/informal control and adoption-diffusion	Dolittle & Welch; Muth & Hendee; Rogers & Shoemaker; Maiolo et al.; Martin et al.
Part III. Community Sustainability: Using Social Values in Natural Resource Management & Decision-making		
Nov 4	Participatory democracy & collaborative stewardship; Environmental conflict	Cortner & Moote; Floyd
Nov 11	<i>No class – Veteran's Day</i>	
Nov 18	Managing conflict; FL Black Bear Hunt case study	Rasmussen & Brunson; Wilmer et al; WFSU: July 10, 2025 - Florida's anticipated bear hunt has

		<u>strong opinions on both sides</u>
Nov 25	Public involvement & collaboration	Lawrence et al.; Beierle; Walker & Daniels
Dec 2	Collaboration in action; Barriers to collaboration; Forms of collaboration	Blahna & Yonts-Shepard; De Lacy; Yaffee & Wondolleck
Dec 9	Using social science: Social impact assessment	Bryan; Burdge
Dec 16	<i>Final Exam</i>	

Reading List

Introduction: Why Social Science?

- Jacobson, S.K. and M.D. McDuff. 1998. Training idiot savants: The lack of human dimensions in conservation biology. *Conservation Biology* 12(2): 263-267.
- DeFries, R. and H. Nagendra. 2017. Ecosystem management as a wicked problem. *Science*, 356(6335), pp.265-270.

Part I. Behavioral Bases for Natural Resource Problems

- White, L. Jr. 1967. The historical roots of our ecologic crisis. *Science* 155 (March):1203-1207.
- Catton, W.R. 1980. Nature and the nature of man. Ch. 9 in *Overshoot: The Ecological Basis of Revolutionary Change*. Urbana, IL: University of Illinois Press.
- Ponting, C. 1991. The lessons of Easter Island. Ch. 1 in *A Green History of the World: The Environment and the Collapse of Great Civilizations*. New York, NY: Penguin.
- Hardin, G. 1968. The tragedy of the commons. *Science* 162:1243-1248.
- Walters, M. 1989. California's chain-saw massacre. *Reader's Digest*. Nov., pp. 144-149.
- Kennedy, J.J. and J.W. Thomas. 1995. Managing natural resources as social value. Ch.18 in R.L. Knight and S.F. Bates (eds.), *A New Century for Natural Resources Management*: Washington, DC: Island Press.
- Brunson, M.W. 1992. Professional bias, public perspectives, and communication pitfalls for natural resource managers. *Rangelands* 14(5):292-295.
- Simon, J. 1989. The population debate: the case for more people. P. 126 in Chiras, *Environmental Science*.
- Harmon, D. 1987. Cultural diversity, human subsistence, and the national park ideal. *Environmental Ethics* 9(Spring): 147-158.
- Brechin, S.R. and P.C. West. 1982. Social barriers in implementing appropriate technology: The case of community forestry in Niger, West Africa. *Humboldt Journal of Social Relations* 9(2): 81-99.

- Stoll-Kleeman, S. and O’Riordan. 2002. From participation to partnership in biodiversity protection: Experience from Germany and South Africa. *Society & Natural Resources* 15: 161-177.
- Tear, T.H., and D. Forester. 1992. Role of social theory in reintroduction planning: a case study of the Arabian oryx in Oman. *Society and Natural Resources* 5:359-374.
- Wilson, M.A. 1997. The wolf in Yellowstone: science, symbol, or politics: deconstructing the conflict between environmentalism and wise use. *Society and Natural Resources* 10:453-468.
- Gilmore, D.W. 1997. Ecosystem management: needs-driven, resource-use philosophy. *The Forestry Chronicle* 73(5): 560-564.
- Schelhas, J. R.E Sherman, T.J. Fahey, and J.P. Lassoie. 2002. Linking community and national park development: A case from the Dominican Republic. *Natural Resources Forum* 26: 140-149.

Part II. Environmental Sustainability: Attitudes, Norms, and Behavior Change Strategies

- Manfredo, M.J., Vaske, J.J., and D.J. Decker. 1995. Human dimensions of wildlife management: basic concepts, in R. Knight and K. Gutzwiller, eds., *Wildlife and Recreationists: Coexistence through Management and Research*. Washington, DC: Island Press.
- Manfredo, M.J., M. Fishbein, G.E. Haas and A.E. Watson. 1990. Attitudes toward prescribed fire policies. *Journal of Forestry* 88(7):19-23.
- Bath, A.J. 1989. The public and wolf reintroduction in Yellowstone National Park. *Society & Natural Resources* 2: 297-306.
- Stern, M.J. 2018. The Theory of Planned Behavior. In *Social science theory for environmental sustainability* (pp. 41–44). New York, NY: Oxford University Press.
- Cole, D.N., T.P. Hammond, and S.F. McCool. 1997. Information quantity and communication effectiveness: Low-impact messages on wilderness trailside bulletin boards. *Leisure Sciences* 19: 59-72.
- Heberlein, T.A. 1992. Reducing hunter perception of crowding through information. *Wildlife Society Bulletin* 20:372-374.
- Oliver, S.S, J.W. Roggenbuck, and A.E. Watson. 1985. Education to reduce impacts in forest campgrounds. *Journal of Forestry* 83(4): 234-236.
- Widner, C.J. and J.W. Roggenbuck. 2000. Reducing theft of petrified wood at Petrified Wood Forest National Park. *Journal of Interpretation* 5(1): 1-18.
- Wirsching, A. Y. Leung, A. Attarian. 2003. Swatting litter bugs: What agencies can do to decrease depreciative behavior. *Parks & Recreation* (Nov.): 16, 18-21.
- Fox, D. 2004. Ecological reform school. *Conservation in Practice* 5(2): 38-39.
- Heberlein, T.A. 1974. The three fixes: technological, cognitive, and structural. In *Water and Community Development: Social and Economic Perspectives*. Ann Arbor, MI: Ann Arbor Science.
- Pryor, K. 1999. Reinforcement: Better than rewards. Pp. 1-10 in *Don’t Shoot the Dog! The New Art of Teaching and Training*. New York: Bantam Books.

- Nickerson, R.S. 2003. Changing Behavior. Ch. 5 in Psychology and Environmental Change. Mahwah, NJ: Lawrence Erlbaum Associates, Pub.
- Meeker, J.W. 1992. Red, white, and black in the national parks. Pp. 195-205 in G. Machlis and D. Field, eds., On Interpretation: Sociology for Interpreters of Natural and Cultural History, revised edition. Corvallis, OR: Oregon State University Press.
- Prettyman, B. 2004. Poaching patrol: Public is lending a hand in state's efforts to protect wildlife. Salt Lake City Tribune, March 25, pp. D1-2.
- Dolittle, M.L., and G.D. Welch. 1974. Fire prevention in the deep South: Personal contact pays off. Journal of Forestry 72(8): 488-490.
- Muth, R., and J.C. Hendee. 1980. Technology transfer and human behavior. Journal of Forestry 78:141-4.
- Rogers, E.M., and F.F. Shoemaker. 1971. Water boiling in a Peruvian village: An example of an innovation that failed. Pp. 2-6 in E. Rogers, ed., Communication of Innovations. New York, NY: The Free Press.
- Maiolo, J.R., J. Johnson, and D. Griffith. 1992. Applications of social science theory to fisheries management: Three examples. Society and Natural Resources 5:391-407.
- Marten, G., S. Brooks, and A. Suutair. 2005. Environmental tipping points: A new slant on strategic environmentalism. World Watch 18(6): 10-14.

Part III. Community Sustainability: Using Social Values in Natural Resource Management & Decision-making

- Cornier, H.J. and M.A. Moote. 1999. Collaborative stewardship in action: Building a civic society. Ch.6 (pp. 91-108) in The Politics of Ecosystem Management, Washington, DC: Island Press.
- Floyd, D.W. 1993. Managing rangeland resources conflicts. Rangelands 15(1): 27-30.
- Rasmussen, G.A., and M.W. Brunson. 1996. Strategies to manage conflicts among multiple users. Weed Technology 10:447-450.
- Wilmer, H., A.M. Meadow, A.B. Brymer, S.R. Carroll, D.B. Ferguson, D. B., I. Garba, ... and D.E. Peck. 2021. Expanded ethical principles for research partnership and transdisciplinary natural resource management science. Environmental Management, 68(4), 453-467.
- WFSU: July 10, 2025 - [Florida's anticipated bear hunt has strong opinions on both sides](#)
- Lawrence, R.L., S.E. Daniels and G.H. Stankey. 1997. Procedural justice and public involvement in natural resource decision making. Society and Natural Resources 10:577-589.
- Beierle, T.C. 1999. Using social goals to evaluate public participation in environmental decisions. Policy Studies Review 16(3/4): 75-103.
- Walker, G.B. and S.E. Daniels. 1996. The Clinton Administration, the northwest forest conference, and managing conflict: When talk and structure collide. Society and Natural Resources 9:77-91.

- Blahna, D.J., and S. Yonts-Shepard. 1990. Preservation or use? Confronting public issues in forest planning and decision making. Ch. 13 in J. Hutcheson, F. Noe and R. Snow (eds.) *Outdoor Recreation Policy, Pleasure and Preservation*. Westport, CT: Greenwood Press.
- De Lacy, T. 1994. The Uluru/Kakadu model: Anangu Tjukurrpa: 50,000 years of aboriginal law and land management changing the concept of national parks in Australia. *Soc. & Nat. Res.* 7: 479-498.
- Yaffee, S.L., and J.M. Wondolleck. 2000. Making collaboration work: Lessons from a comprehensive assessment of over 200 wide-ranging cases of collaboration in environmental management. *Conservation Biology in Practice*, pp. 17-25.
- Bryan, H., 1996. The assessment of social impacts. Chap. 9 in Ewert W. (ed.) *Natural Resource Management: The Human Dimension*, Boulder, CO: Westview Press.
- Burdge, R.J. 2003. The practice of social impact assessment background. *Impact Assessment and Project Appraisal*. 21(2)