Course Name: Consensus and Natural Resources
Course Number: FES 485/585
Credits: 3
Instructor name: Dr. Stacy Rosenberg
Instructor email: stacy.rosenberg@oregonstate.edu
Term: Summer 2022 (Session 3)

Course Description
Students will use a working group approach. They will select a natural resource topic, study the team process and interaction as a method of learning, explore the issue using systems practice, and strive for consensus on solutions to their issue.
(Bacc Core Course: Synth, Sci/Tech/Soc)

Prerequisites or Corequisites: None

Course Overview
This course highlights multi-stakeholder collaborative planning processes in the natural resources field. It fulfills the Baccalaureate Core Synthesis requirement for Science, Technology, and Society by integrating both ecological and social perspectives in the study of collaborative natural resource planning approaches. The natural resources field draws on a variety of academic disciplines, including: geography, communications, sociology, ecology, economics, political science, fish and wildlife management, psychology, social marketing, urban planning, and other related disciplines. Over the past 30 years, changes in societal values and the incorporation of diverse voices (including marginalized and underrepresented groups), traditional ecological knowledge, and ecosystem-based management have strongly influenced natural resource planning efforts. Recent technological and scientific advances have also affected planning approaches and strategies.

Collaborative initiatives began to appear in the 1990s because the traditional expert-driven, top-down regulatory approach was unable to solve intractable problems. In addition to producing on-the-ground results, many collaborative groups have been able to increase social capital, improve community resilience, and strengthen community relationships. Throughout this course, students will investigate a variety of strategies used by collaborative groups to achieve success and examine methods to overcome challenges. The readings, videos, case studies, role plays, and class exercises cover a wide range of topics and provide a strong foundation for students to better understand and improve skills essential in working with collaborative initiatives.

In this course, students will critically analyze relationships between diverse stakeholders, natural resource management practices, scientific information, and social processes, and will learn how to: 1) be effective participants on collaborative planning teams, and 2) successfully engage diverse stakeholders to make decisions that are supported by multiple interests. Class exercises emphasize practical skills that can be useful for any career.

Baccalaureate Core Student Learning Outcomes Science, Technology, and Society (STS)

1. Analyze relationships among science, technology, and society using critical perspectives or examples from historical, political, or economic disciplines.
2. Analyze the role of science and technology in shaping diverse fields of study over time.
3. Articulate in writing a critical perspective on issues involving science, technology, and society using evidence as support. (Minimum of one >1,250-word written assignment that develops and sustains a critical perspective using evidence and a multidisciplinary approach).

Course Specific Student Learning Outcomes
The course is designed to promote a better understanding of how federal, state, and local agencies, citizen groups, organizations, businesses, and private landowners can work cooperatively on natural resource issues. These collaborative initiatives often lead to more durable, well supported natural resource decisions. Upon completion of this course, students will be better able to:

1. Demonstrate an understanding of complex social values and the political, economic, and ecological context within which natural resource decisions are made.

2. Assess how diverse stakeholder groups use scientific information in natural resource conflicts and collaborative decision making processes.

3. Explain different approaches and techniques for promoting inclusive engagement in collaborative initiatives.

4. Develop communication skills for the professional workplace and for building successful community-based consensus on natural resource issues.

5. Evaluate the underlying social and ecological roots of natural resource conflicts and the role of collaborative management strategies in addressing these challenging problems.

6. Identify the range of organizational and community resources for building consensus and sound decisions, including local knowledge about issues and places.

7. Identify barriers to reaching consensus as well as steps to overcome them.

8. Enhance writing skills suitable for project planning within a natural resource organization.

Graduate Student Expectations and Additional Learning Outcomes (FES 585)
Graduate student work is expected to be significantly more rigorous in both depth of study and methodology than students enrolled in FES 485. Graduate students are asked to synthesize theoretical and practical dimensions of collaborative natural resource management and communicate this advanced understanding in all written assignments. In addition, graduate students will conduct individual research on a complementary topic, present their findings to the class, and facilitate one online discussion board. Upon completion of this course, graduate students will be able to:

1. Synthesize theoretical and practical dimensions of collaborative natural resource management.
2. Evaluate the effectiveness of different consensus approaches and determine the best parameters for each approach.
3. Enhance group facilitation skills and promote effective teamwork strategies.
4. Analyze complex natural resource conflicts and identify how diverse stakeholder groups can work together to find common ground.

Learning Resources
There is **no required textbook** for the class. All course readings will be available on the Canvas course website. Course learning resources include the following:

- Required readings—many of which are directly suited to a management audience
- PowerPoint presentations
- Role play and other class activities
- Video clips
- Discussions that involve an advanced level of critical thinking

Canvas
This course will be delivered via Canvas where you will interact with your classmates and with your instructor. Within the course Canvas site, you will access the learning materials, such as the syllabus, class discussions, assignments, and exercises. To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, please visit Ecampus Technical Help.

Technical Assistance
If you experience any errors or problems while in your online course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the IS Service Desk for assistance. You can call (541) 737-8787 or visit the IS Service Desk online.

Course Adaptability
The instructor retains the right to make changes to the structure and content of the course as needed. Please contact the instructor if you are planning on "working ahead" of the schedule as future weeks may be modified during the term.

Communication
Please post all course-related questions in the Question & Answer Discussion Board so that the whole class may benefit from our conversation. Please email your instructor for matters of a personal nature. I will reply to course-related questions and email within 24-48 hours. I will strive to return your assignments and grades for course activities to you within seven to ten days of the due date. Please note that the instructor's role does not include troubleshooting technical difficulties such as problems downloading or opening online files.

Time Expectation
This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

Evaluation of Student Performance
Course grades are based on four components: ***1) two written assignments, 2) a group project plan, 3) level of engagement and participation in the weekly online discussion forums, and 4) role play and other class exercises.*** Additional details about class assignments will be provided. Your completion of these requirements will enable you to accumulate points that will determine your final grade in the course.

1. **Written Assignments**
   There are two individual writing assignments in the course. Students are expected to produce high quality and thoughtful written assignments that demonstrate a strong understanding of class material. The assignments require students to synthesize information about the social and ecological dimensions of natural resource conflicts and how consensus-building among multiple interests can help resolve these problems. Students will incorporate "real-world" natural resource case studies in these assignments. Both assignments will be assessed using course-specific and STS student learning outcomes.

   The "Solving Social Acceptability Issues to Help Build Consensus Assignment" meets the >1,250-word written assignment requirement for Baccalaureate Core STS student learning outcome #3. Students will analyze how changing science, technological advances, and societal processes influence each other over time. The assignment requires students to develop and sustain a critical perspective using evidence as support and a multidisciplinary approach. It requires 5 academic and/or government sources and at least 2 of these references must be outside sources. Additional detailed information will be provided.

2. **Group Project Plan**
   Students will be involved in a collaborative project that culminates in a team report (8-10 pages of text) due at the end of term. Each student will be assigned to a three or four-person team. Students will develop a community outreach strategy for a large-scale forest restoration program. It will require students to assess the social and ecological dimensions of forest restoration and create a public outreach strategy using a collaborative, multi-stakeholder approach. Additional information on project details and expectations will be provided during Week 2. Everyone is expected to have a role and all team members will receive the same grade. Students will be assessed using both course-specific and STS student learning outcomes. In particular, STS student learning outcomes #1 and #3 will be emphasized during assessment.

3. **Weekly Online Discussion Forums**
   Each week our course content will include an online discussion forum to further learning from lectures, readings, video clips, and other activities. I will award active, informed, and genuine participation via your posts in discussions. Each week at least three substantive posts will be required. Please read and pay attention to the Discussion Forum Guidelines outlining detailed requirements for your participation in

our weekly discussion forums. Typically, your first post is expected by Wednesday evening and additional posts are due by Sunday evening. Students will be assessed using both course-specific and STS student learning outcomes.

4. **Role Play and Class Exercises**

Students will participate in several role play and class exercises throughout the term. These exercises will allow students to become familiar with different stakeholder perspectives and the challenges in developing consensus among diverse stakeholder groups. Students will be assessed using both course-specific and STS student learning outcomes.

Grading Scale

Grade	Percent Range
A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	below 60

Undergraduate Grade Basis

Written Assignments (2 x 10%)	20%
Weekly Online Discussion Forums (8 x 3.75%)	30%
Group Project Plan	25%
Role Play & Class Exercises	25%
Total	100%

Summary of FES 585 Assignment Augmentation

Course grades for graduate students are based on five components. In addition to the four components listed above, each graduate student will conduct individual research on a topic related to collaborative natural resource management, present their findings to the class, and facilitate one online discussion board. This provides an opportunity for students to integrate additional theoretical components with course topics. Students will be assessed using graduate student learning outcomes, with special emphasis on #1, #3, & #4. The presentation and online discussion board assignment will be discussed in more detail during Week 1.

Graduate students are expected to produce professional written assignments that demonstrate a firm understanding and analysis of the theoretical and practical dimensions of collaborative natural resource management. Students will be assessed using graduate and course-specific student learning outcomes. Special attention will be placed on graduate student learning outcomes #1, #2, and #4 for all written assignments.

Additional requirements are also required for the group project plan. Students will be assessed using graduate and course-specific student learning outcomes. Graduate student learning outcomes #1, #2, and #4 will be emphasized during assessment. The grading scale for FES 485 and FES 585 is the same.

Graduate Evaluation

Written Assignments (2 x 10%)		20%
Weekly Online Discussion Forums (8 x 3.75%)		30%
Group Project Plan		15%
Presentation & Class Facilitation		10%
Role Play & Class Exercises		25%
	Total	100%

Course Policies

Discussion Participation
Students are expected to participate in all graded discussions. While there is great flexibility in online courses, this is not a self-paced course.

Class Expectations
In order to create an environment in which students are comfortable expressing their opinions and perspectives, I ask that students please approach the readings and others' contributions with both an open mind and a willingness to question one's own assumptions and biases.

Students are expected to behave in a professional manner at all times.

- Students should treat each other and the instructor with the professional courtesy and respect expected in a workplace.
- All communications relating to this course and all work turned in for this course should reflect professional standards in tone, presentation, formatting, and spelling.
- Students should be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.
- Adhere to all OSU policies governing academic honesty as outlined at the Office of Student Conduct and Community Standards website.

Late Work Policy
Late work will be penalized 10% for each day an assignment is late. Final projects will not be accepted if they are late. Extensions may be granted for extenuating circumstances (e.g. major personal illness, family emergency) – contact the instructor as soon as possible.

Incompletes
Take this course only if you plan to finish it in a timely manner during this term. The instructor will assign an "I" or incomplete only when a student has communicated a strong and compelling case for doing so (e.g. health reasons, military commitment). The instructor will not assign an "I" or incomplete unless a student has completed over 50% of assigned course tasks. Missing work, such as lack of participation in online discussions, may preclude A or A- grades. If an incomplete or "I" is not resolved in 12 months or less, the grade becomes an F.

Statement Regarding Religious Accommodation
Oregon State University is required to provide reasonable accommodations for employee and student sincerely held religious beliefs. It is incumbent on the student making the request to make the faculty member aware of the request as soon as possible prior to the need for the accommodation. See the Religious Accommodation Process for Students.

Guidelines for a Productive and Effective Online Classroom
Students are expected to conduct themselves in the course (e.g., on discussion boards, email) in compliance with the university's regulations regarding civility. Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor.

Active interaction with peers and your instructor is essential to success in this online course, paying particular attention to the following:

  • Unless indicated otherwise, please complete the readings and view other instructional materials for each week before participating in the discussion board.
  • Read your posts carefully before submitting them.
  • Be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.
  • Challenging the ideas held by others is an integral aspect of critical thinking and the academic process. Please word your responses carefully, and recognize that others are expected to challenge your ideas. A positive atmosphere of healthy debate is encouraged.

Expectations for Student Conduct
Student conduct is governed by the university's policies, as explained in the Student Conduct Code (https://beav.es/codeofconduct). Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility.

Academic Integrity

Integrity is a character-driven commitment to honesty, doing what is right, and guiding others to do what is right. Oregon State University Ecampus students and faculty have a responsibility to act with integrity in all of our educational work, and that integrity enables this community of learners to interact in the spirit of trust, honesty, and fairness across the globe.

Academic misconduct, or violations of academic integrity, can fall into seven broad areas, including but not limited to: cheating; plagiarism; falsification; assisting; tampering; multiple submissions of work; and unauthorized recording and use.

It is important that you understand what student actions are defined as academic misconduct at Oregon State University. The OSU Libraries offer a [tutorial on academic misconduct](#), and you can also refer to the [OSU Student Code of Conduct](#) and [the Office of Student Conduct and Community Standard's website](#) for more information. More importantly, if you are unsure if something will violate our academic integrity policy, ask your professors, GTAs, academic advisors, or academic integrity officers.

Statement Regarding Students with Disabilities

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval, please contact DAS immediately at 541-737-4098 or at http://ds.oregonstate.edu. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Accessibility of Course Materials

All materials used in this course are accessible. If you require accommodations please contact [Disability Access Services (DAS)](#).

Additionally, Canvas, the learning management system through which this course is offered, provides a [vendor statement](#) certifying how the platform is accessible to students with disabilities.

Diversity, Equity, and Inclusion

As a course focused on consensus and natural resources, this class addresses many issues of diversity, equity, and inclusion. Within this classroom and in all classroom interactions, respect for each other and for our occasionally differing viewpoints is essential. While people may disagree, an absolute requirement in this course is to treat each other with empathy, dignity and respect. It is important that we create a learning environment in which everyone feels safe and respected (which in-turn increases everyone's potential to learn). We, like many people, are still in the process of learning about diverse perspectives and identities. I will work to be as forthright and respectful as possible in considering a diversity of perspectives and identities, and ask that you do so as well. We will work together to create an inclusive learning environment. This means holding each other accountable to this commitment. If something is said in class (by anyone) that makes you feel uncomfortable, please talk to me about it. I believe the learning environment should honor your identities

(including race, gender, class, sexuality, religion, ability, etc.). To help accomplish this, if you have a name and/or set of pronouns that differ from those that appear in your official OSU records, please let me know.

Tutoring and Writing Assistance
TutorMe is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Access TutorMe from within your Canvas course menu.

The Oregon State Online Writing Suite is also available for students enrolled in Ecampus courses.

Ecampus Reach Out for Success
University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success.

Ecampus students are always encouraged to discuss issues that impact your academic success with the Ecampus Success Team. Email ecampus.success@oregonstate.edu to identify strategies and resources that can support you in your educational goals.

- **For mental health:**
  Learn about counseling and psychological resources for Ecampus students. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

- **For financial hardship:**
  Any student whose academic performance is impacted due to financial stress or the inability to afford groceries, housing, and other necessities for any reason is urged to contact the Director of Care for support (541-737-8748).

Academic Calendar
All students are subject to the registration and refund deadlines as stated in the Academic Calendar: https://registrar.oregonstate.edu/osu-academic-calendar.

Student Bill of Rights
OSU has twelve established student rights. They include due process in all university disciplinary processes, an equal opportunity to learn, and grading in accordance with the course syllabus: https://asosu.oregonstate.edu/advocacy/rights.

Student Learning Experience Survey
During Fall, Winter, and Spring term the online Student Learning Experience surveys open to students the Wednesday of week 9 and close the Sunday before Finals Week. Students will receive notification, instructions, and the link through their ONID email. They may also log into the survey via MyOregonState or directly at https://beav.es/Student-Learning-Survey. Survey results are extremely important and are used to help improve courses and the learning experience of future students. Responses are anonymous (unless a student chooses to "sign" their comments, agreeing to relinquish anonymity of written comments)

and are not available to instructors until after grades have been posted. The results of scaled questions and signed comments go to both the instructor and their unit head/supervisor. Anonymous (unsigned) comments go to the instructor only.

Course Content
The course week begins on Monday and ends the following Sunday at 11:59 pm.
Note: *This syllabus may be updated during the term.*
Complete reading citations and assignment descriptions are available in Canvas. Discussions require initial posts by Wednesday at 11:59 pm and response posts on the following Sunday at 11:59 pm. Most assignments are due Sunday at 11:59 pm. Be sure to check Canvas for all assignment details and updates.

Week	Topic	Readings & Assignments
Week 1 June 20-26	Course Overview & Defining Collaboration	**Readings** • Margerum (2011) pp. 6-9 • Wondollect & Yaffee (2000) pp. 23-25 • Forester/Folk-Williams (2013) Chapter 9 **Learning Activities** • Introductions Discussion Post • Review Course Information • PowerPoint Presentation • Watch Videos • Week #1 Class Discussion **Assignments** • Week #1 Class Discussion posts
Week 2 June 27-July 3	Engaging Diverse Communities in Collaborative Initiatives	**Readings** • Rongerude & Sandoval (2016) • Reo et al. (2017) • Klamath Basin Case Study (2021) **Learning Activities** • PowerPoint Presentation • Watch Videos • Role Play #1 • Week #2 Class Discussion **Assignments** • Role Play #1 posts • Week #2 Class Discussion posts
Week 3 July 4-10	Stories From the Field & Citizen-Agency Partnerships	**Readings** • Innes & Booher (2010) pp. 35-38, 41-52 & 72-80 • Shindler & Gordon (2005) **Learning Activities** • PowerPoint Presentation • Watch Videos • Role Play #2

Week	Topic	Readings & Assignments
Week 3 (cont.)		• Week #3 Class Discussion **Assignments** • Role Play #2 posts • Week #3 Class Discussion posts
Week 4 July 11-17	Social Acceptability	**Readings** • Shindler et al. (2002) • Maleki (2008) **Learning Activates** • PowerPoint Presentation • Watch Videos • Role Play #3 • Week #4 Class Discussion **Assignments** • Role Play #3 posts • Week #4 Class Discussion posts
Week 5 July 18-24	Effective Facilitation & Public Involvement	**Readings** • Forester/Beutler (2013) Chapter 4 • Oliver (2011) • Margerum (2011) pp. 84-94 **Learning Activates** • PowerPoint Presentation • Watch Videos • Week #5 Class Discussion **Assignments/Exams** • Assignment #1 due • Week #5 Class Discussion posts
Week 6 July 25-31	Dealing With Conflict & Collaboration Challenges	**Readings** • Conway (1999) • Fraidenburg & Strever (2004) **Learning Activities** • PowerPoint Presentation • Watch Videos • Role Play #4 • Week #6 Class Discussion **Assignments** • Role Play #4 posts • Week #6 Class Discussion posts

Week 7 August 1-7	Communication Strategies	**Readings** • Moser (2010) • Kelly (1994) **Learning Activities** • PowerPoint Presentation • Watch Videos • Week #7 Class Discussion **Assignments** • Assignment #2 due • Week #7 Class Discussion posts
Week 8 August 8-12	Oregon Partnerships & Incorporating Traditional and Local Ecological Knowledge	**Readings** • Innes & Booher (2010) pp. 176-183 • Wiley et al. (2013) • Oregon Solutions (https://orsolutions.org/projects) **Learning Activities** • PowerPoint Presentation • TEK Presentation by Dr. Chisholm Hatfield • Watch Videos • Week #8 Class Discussion **Assignments** • Final Project due • Week #8 Class Discussion posts

CLO	Subject	Activities	Assessment
Category Learning Outcome #1	How does the course align with or meet this specific outcome?	What assignments, class activities, discussions are used to address this outcome?	How is student achievement of this outcome formally measured?
Analyze relationships among science, technology, and society using critical perspectives or examples from historical, political, or economic disciplines.	Collaborative natural resource planning is multidisciplinary and includes knowledge from political science, urban planning, sociology, geography, and other relevant disciplines. Course topics and class exercises highlight the intersection of changing societal values and perspectives, new approaches to defining science, incorporating diverse views into the design and implementation of scientific research, and technological advances (e.g., GIS, new modeling software, etc.).

The course incorporates multidisciplinary research in a variety of ways. For example, the class includes information on how to communicate climate change concepts to target populations (using political science, psychology, social marketing, sociology, geography, etc.).

Students use a critical perspective to analyze the social, cultural, political, and ecological dimensions of collaborative natural resource planning and critique the strengths and weaknesses of different collaboration strategies and methods. | Written assignments require students to analyze and synthesize information about the social, cultural, political, and ecological dimensions of natural resource conflicts and how consensus-building among multiple interests can help resolve these problems.

Lectures, role plays, discussions, and class exercises are used to explore course topics and allow students to practice communication skills.

The Final Project Plan requires students to work in teams to design a community outreach plan on forest management. Students must synthesize knowledge from multiple disciplines to complete this project. | Detailed formal rubrics are used for the two individual writing assignments, the Final Project Plan, class exercises and role plays, and online discussion forums.

These rubrics measure student competency in analyzing and synthesizing the complex relationships between societal values, science, and technological advances. For example, the 1st written assignment requires students to provide a multidisciplinary perspective on social acceptability and how evolving societal values and scientific and technological advances have shaped natural resource management. One of the rubric criteria is whether students use evidence to support their critical perspective on this issue. |

CLO	Subject	Activities	Assessment
Category Learning Outcome #2	How does the course align with or meet this specific outcome?	What assignments, class activities, discussions are used to address this outcome?	How is student achievement of this outcome formally measured?
Analyze the role of science and technology in shaping diverse fields of study over time.	This course examines the changing role of science and technological advances in collaborative planning over time. Adaptive natural resource management strategies, the incorporation of traditional ecological knowledge, citizen science, and local knowledge have recently been integrated into collaborative planning efforts. Ecosystem-based management and the inclusion of public values in natural resource decisions emerged in the 1990s and has changed how scientific research is designed and perceived. This approach coincided with the use of collaborative planning processes to bring diverse stakeholders together to solve difficult problems. Stakeholders can include representatives from the education field, local/state/federal agencies, timber interests, urban community groups, conservation organizations, recreational user groups, neighborhood groups, local chambers of commerce, etc. The integration of technological advances (e.g., GIS and community mapping exercises, climate modeling, etc.) into collaborative group decision making has influenced natural resource management and the design of new research to meet collaborative group needs. Collaborative natural resource planning draws heavily on a variety of academic disciplines, including: political science, communications, sociology, conservation biology, psychology, economics, ecology, geography, social marketing, and urban planning. The evolution of collaborative planning strategies has been influenced by how science has changed knowledge in many of these disciplines. For example: urban planning approaches changed over time to include diverse voices, which led to changes in research questions and findings in geography, sociology, political science, and other disciplines. This in turn led to additional changes in urban planning strategies (including collaborative planning).	Written assignments require students to analyze how the changing role of scientific information and technological advances influence collaborative problem solving efforts. Course materials include natural resource case studies that demonstrates how science and natural resource management has changed over time. Students critique and analyze these changes and how they shape collaborative planning efforts. Lectures and discussions also highlight how changes in science and technology have influenced collaborative planning strategies. The Final Project Plan requires students to work in teams to develop a multidisciplinary forest restoration outreach strategy. Students must synthesize important concepts from course materials and evaluate how the changing role of science affects future restoration planning.	Detailed formal rubrics are used to assess student achievement. Students must demonstrate a proficient understanding of how collaborative planning has been influenced by changes in science and technology. Specific rubric components include critical analysis of the multidisciplinary dimensions of collaborative problem solving. The written assignments include rubric criteria about the social, political, cultural, and ecological dimensions of changing scientific practices and approaches. Students are assessed by the level of achievement attained in their analysis and evaluation of these dimensions. Role plays, class exercises, and discussions are assessed through a variety of means, including demonstration of critical thinking skills and the level of student engagement in these activities.

CLO	Subject	Activities	Assessment
Category Learning Outcome #3	How does the course align with or meet this specific outcome?	What assignments, class activities, discussions are used to address this outcome?	How is student achievement of this outcome formally measured?
Articulate in writing a critical perspective on issues involving science, technology, and society using evidence as support. *	The 1st written assignment requires students to integrate the social, political, economic, and ecological dimensions of collaborative natural resource planning and design strategies to promote social acceptability. It requires the incorporation of "real world" case studies to support specific strategies to achieve social acceptability. Students provide a multidisciplinary perspective on social acceptability and how evolving societal values and scientific and technological advances have shaped natural resource management. The paper requires students to develop and sustain a critical perspective and use evidence to support their arguments. It must be 1,250 words and include a minimum of 5 academic and/or government references (at least 2 of these must be outside sources).

Additional writing assignments also require analysis of the complex relationship between changing societal values, science, and technological advances. | The "Solving Social Acceptability Issues to Help Build Consensus Assignment" meets the >1,250-word out-of-class written assignment requirement (as explained).

The second writing assignment, discussion board posts, and final group project plan also require effective writing and use of academic and government documents to support statements. These assignments require students to develop a critical perspective on course topics. | A detailed formal rubric is used to assess the "Solving Social Acceptability" paper. The rubric includes standard writing elements and measures a variety of writing components. It includes rubric criteria on the synthesis of social, cultural, political, and ecological dimensions of social acceptability and criteria on the strength of the critical perspective on this topic.

The second writing assignment, discussion board posts, and final group project plan also include formal rubrics to assess student critical thinking skills on course topics. |

This course is offered through Oregon State University Extended Campus. For more information visit: http://ecampus.oregonstate.edu.