

Environmental Impact Assessment
ENVD 4023
Course Syllabus – Fall 2015
Tuesdays & Thursdays, 12:30-1:45 pm



Art Credit: Charlev Harber

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Office Hours: Tuesday/Thursday 11:30-12:30 or by appointment, ENVD 146

Course Description

The National Environmental Policy Act of 1969 was a landmark policy that has shaped decision-making and environmental protection for forty years. It set forth a broad and holistic approach to understanding the environment and has been emulated at state and local levels as well as in more than 100 other countries. Its applications are broad, extending to transportation planning, environmental health, brownfields and urban retrofits, landscape design and forest restoration, among others. While we will focus on the environmental impact statement as required and outlined by the National Environmental Policy Act (NEPA), we will also explore other applications of assessments, including by cities, counties, and internationally. We will explore NEPA and discuss what this law requires when conducting an assessment. We will consider the various components that go into creating an environmental impact statement, including the environmental, ecological and social contexts in which environmental assessments occur, their value and effectiveness in these contexts. We will give specific focus to some of NEPA's weaknesses and gaps, including greenhouse gas and climate change considerations, environmental health and justice issues, analysis of cumulative impacts, and visual presentation and communication of information. We will also analyze and apply the ideas of environmental impact assessment through reading and discussions of *Creating Green Roadways*.

Course Objectives

The main objective of this course is to introduce students to environmental impact assessment. These concepts include understanding how laws work, quantitative and qualitative reasoning, interpreting graphs and tables, critical thinking, reading, and visual display of information. To meet these objectives, we will engage in lectures, small group and large group discussion, analyzing data and case material, and generating ideas for improving the environmental assessment process.

Student Learning Objectives

- Students will be able to describe the National Environmental Policy Act (NEPA) and its requirements
- Students will become familiar with some of the basic environmental assessment policies and requirements
- Through case studies, students will learn to present and explain the components and decision making processes involved in environmental assessment
- Students will consider and evaluate applications of environmental assessment through critical reflection and dialogue of case material and readings
- Students will critically reflect on ways to improve the environmental impact assessment process at state and federal levels

Materials

Required: *Creating Green Roadways: Integrating Cultural, Visual, and Natural Resources into Transportation* by James L. Sipes and Matthew L. Sipes. Island Press, 2013. Available from the CU Bookstore.

Optional: *Environmental Impact Assessment: A Practical Guide* by Betty Bowers Marriott. Available from the CU Bookstore. Also available from online sellers to rent for about \$15 and to buy for about \$65 new and \$30 used.

Course Requirements and Assessments

Students enrolled in the course are expected to:

- Attend class and actively participate
- Read assigned readings and prepare for thoughtful engagement in class discussions
- Complete all assignments
- Navigate the Desire2Learn (D2L) website to access course readings, assignments and resources and monitor grades. NOTE: Assignment deadlines are firm; readings and topics may shift and will be noted on D2L. It is the students' responsibility to follow any changes to the syllabus as noted on D2L.
- Follow the university's policies (noted at end of syllabus)
- Communicate with the instructor via office hours or email: victoria.derr@colorado.edu

Grades will be posted on Desire2Learn as they are assigned throughout the semester.

Public Comment	15%
Case Study Presentation	20%
Quizzes (5 @ 4% each)	20%
Exams (2 @ 15% and 20%)	35%
Debates	10%

Weekly Schedule & Assignments

Week	Date	Topic	Assignments
1	Tuesday, Aug 25	Introduction	
1	Thursday, Aug 27	NEPA: the law & its applications	Basic terminologies, components and process of EIA, Marriott Chapter 1 & 2
2	Tuesday, Sept 1	The EIA Process: Projects, Scoping, Alternatives	Marriott, Chapter 3
2	Thursday, Sept 3	Land Use	Quiz 1; Marriott Chapter 5
3	Tuesday, Sept 8	Vegetation & Wildlife	Field Measurements; Marriott, Chapter 21
3	Thursday, Sept 10	Vegetation & Wildlife; Restoration	Guest Speakers: OSMP
4	Tuesday, Sept 15	Vegetation & Wildlife	Case Studies; Biodiversity Planning Chapter 1; Green Roadways, P. 173-178, 199-202, 208-210
4	Thursday, Sept 17	Water	Case Studies; Marriott Chapter 18
5	Tuesday, Sept 22	Water	Meet at Boulder Creek; Public Comment Due
5	Thursday, Sept 24	Water	Green Roadways, p. 182-188; Wilson & Piper Chapter 10; Quiz 2
5	Tuesday, Sept 29	Debates	Water, Vegetation and Wildlife Debates
6	Thursday, Oct 1	Floodplains & Coastal Areas, Flood Risk	Case Studies
7	Tuesday, Oct 6	Floodplains & Coastal Areas, Flood Risk	Marriott Chapter 19; Beatley Coastal Resilience
7	Thursday, Oct 8	Wetlands	Case Studies; Marriot Chapter 20; Green Roadways p. 202-203

8	Tuesday, Oct 13	Debates	Water, Floodplains, Coastal Areas, Wetlands Debates; Quiz 3
8	Thursday, Oct 15	Social & Neighborhood Effects	Marriott Chapter 6 & 7
9	Tuesday, Oct 20	Relocations & Refugees	Case Studies Read Marriot Chapter 8
9	Thursday, Oct 22	Mid Term	Mid-Term Exam
10	Tuesday, Oct 27	Traffic & Transportation	Case Studies; Marriot Chapter 9; Green Roadways Chapters 1 & 2
10	Thursday, Oct 29	Transportation & Green Roadways	Green Roadways Chapter 12; Quiz 4
11	Tuesday, Nov 3		
11	Thursday, Nov 5	Historic & Archeological Resources	Case Studies Marriot Chapter 12 Green Roadways, Chapter 8;
12	Tuesday, Nov 10	Visual Resources	Case Studies Green Roadways, Chapter 8
12	Thursday, Nov 12	Debates	Traffic, Transportation, Historic, Archeological and Visual Resources Debates
13	Tuesday, Nov 17	Energy	Case Studies Marriot Chapter 11
13	Thursday, Nov 19	Energy	Quiz 5
14	Tuesday, Nov 24	Fall Break	
14	Thursday, Nov 26	Fall Break	
15	Tuesday, Dec 1	Environmental Safety, Public Health, & EJ	Marriott Chapter 14/15/17
15	Thursday, Dec 3	Environmental Safety, Public Health, & EJ	Case Studies
16	Tuesday, Dec 9	Debates	Energy, Environmental Safety, Public Health and EJ Debates

16	Thursday, Dec 11	Climate Adaptation Planning	Guest Speaker: Brett KenCairn, city of Boulder, Environment
17	Exam Period	Final Exam	Cumulative Final Exam

COURSE POLICIES

Attendance

Per University policy, students are allowed 3 unexcused absences per semester. Any additional absences will result in a grade reduction. On-going active involvement in all discussions and class activities is an essential part of attendance. Use of electronic devices or phones is NOT allowed and may result in grade reductions.

Quizzes & Exam: 20% + 15% + 20%

Five quizzes will be issued throughout the semester. These quizzes will be based on the readings and lectures. The average grade for all five quizzes will comprise the quiz grade. **There will be NO make-up quizzes.** Quizzes are 20% of the final grade or 4% each. A mid-term and comprehensive final exam will be issued in October and during the exam period, respectively. Exams will cover readings, lectures, discussion materials, and case study presentations by peers. The mid-term exam is 15% and the final exam is 20% of the final grade.

Case Studies: 20%

Each student will prepare a case study of an environmental assessment: why it was needed, what the assessment included, how it was conducted, what its findings were, and what the outcomes have been. This case study will be presented to the class in a professional presentation format.

Public Comment: 15%

A critical component of the environmental assessment is public participation. Each student will find a project that is open for comment and write and submit a public comment. Evidence of submission will be given with the written comment. Evidence of research and topic knowledge, informed recommendations and questions, a professional letter, and spelling and grammar will be part of the comment grade.

Debates: 10%

Each student will participate in a group debate that critiques the environmental assessment process and policies for their assigned debate section and offers suggestions for improvement and relevancy to today's environmental issues. Students will be expected to include concrete changes that address specific policies and sections of acts.

Extra Credit: Up to 2%

At any time in the regular semester (weeks 1-15) you may submit up to 2 current events that relate to NEPA or environmental impact assessment topics covered in class. To receive credit you must submit a paragraph as to how it relates to course topics as well as a source, preferably a web link, and share the event with the class. Students may complete no more than 2 extra credit assignments for a maximum of 1 percentage point per current event topic (or a total of 2% of the final grade).

Deadlines, Plagiarism, and Grades

Written assignments are due at the beginning of class by hard copy and electronically via Desire2Learn just prior to the start of class. Late assignments will be graded based on the assignment's criteria and then marked down by one full letter grade for each late day. All assignments must be submitted through D2L and a hard copy provided in class for written assignments. Plagiarism checkers will be used through D2L. Students are responsible for monitoring the posting of grades for assignments that they have handed in and should notify the professor immediately of missing or incorrect grades. The deadline for bringing missing grades to my attention is December 12, 2015.

Class Conduct

Students are expected to behave in a professional and respectful manner in class. **No use of electronic devices (phones, tablets, laptops, etc.) is permitted during the class period (unless for authorized use).** Students who use these devices may receive grade reductions.

Final Grade Calculation

Grades will be based on the following scale:

A	95-100%	C	74-76%
A-	90-94%	C-	70-73%
B+	87-89%	D+	67-69%
B	84-86%	D	64-66%
B-	80-83%	D-	60-63%
C+	77-79%	F	59% or lower

University Policies

1. **Disabilities** – If you qualify for accommodations because of a disability, please submit a letter to the instructor from Disability Services in a timely manner (for exam accommodation, provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at [303-492-8671](tel:303-492-8671) or by e-mail at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Medical Conditions: Injuries, Surgeries, and Illnesses guidelines under Quick Links at Disability Services website and discuss your needs with your professor.

2. **Religious Observance** – Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please inform your professor in a timely manner so that any necessary alternative arrangements may be made. See policy details at http://www.colorado.edu/policies/fac_relig.html.

3. **Learning environment** – Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code.

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at [303-492-2127](tel:303-492-2127) or the Office of Student Conduct (OSC) at [303-492-5550](tel:303-492-5550). Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.

4. **Academic honesty & plagiarism** – All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; [303-735-2273](tel:303-735-2273)). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>