

UNIVERSITY OF SOUTHERN CALIFORNIA
Environmental Studies Program
Spring 2016

ENST 530: Environmental Risk Analysis
MWF 12:00-12:50 pm, WPH 200

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Course Overview:

Analyzes various potential environmental risks and examines how science, government, and business evaluate, manage and communicate environmental risks.

Course Materials:

Required Textbook:

- Kevin Smith and David N. Petley (2009) Environmental Hazards: Assessing Risk and Reducing Disaster. 383 pp. Routledge Publishers. Referred to below as EH.

Additional Required Readings:

- Readings from the primary literature and/or technical reports will be assigned on a weekly basis and will be distributed during lecture and via Blackboard.

Course Requirements:

Routine attendance and active participation are an important part of each class session. For the best experience, you are expected to have read the course materials (see below) by the date it is discussed in class. Roll will be taken periodically in the form of thought exercises, and in-class questions. You are responsible for all information, announcements, date changes, and any other course material presented, regardless of your participation in the classroom.

You will be graded on the basis of your performance on exams, problem sets, written assignments, critiques, and class participation (e.g., Blackboard assignments, oral presentations, etc.). Lecture presentations will be posted on Blackboard for download and subsequent study. Exam questions will be drawn from course readings, assignments, lectures, and will include both short answer and essay questions. No make-up midterms or final exams will be allowed nor will any assignments be accepted after the posted deadline without explicit permission from the instructors.

Below is a list of the graded assignments, scheduled due dates, and their percent values:

Midterm	Feb 29	20%
Final Exam	May 6	20%
Risk Assignments (n=2)	Feb 26, Apr 1	15%
Journal Article Presentation (1 per student)	Rolling	15%
Oral Presentation	Apr 27-29	10%
Final Paper	Apr 29	20%
TOTAL		100%

Risk Assignments:

Each student is required to submit two separate written risk assignments over the course of the semester. Each assignment will focus on one or more of the three components of risk analysis (evaluation, management, communication). These assignments will have quantitative, theoretical and applied elements. Individual students are responsible for developing, writing, and submitting their own assignment. Assignments should *not* exceed 3-pages (single-spaced, 12-point font, 1-inch margins) in length – minimum length is 2-pages; page limits do *not* include references and/or figures.

Journal Article Presentation:

For this assignment, each student will select and circulate a scholarly article on an assigned topic (and date) as it relates to the course syllabus. On the scheduled day, the student will present the article and lead/moderate the class discussion afterwards. A sign-up sheet with presentation dates will be circulated during the first week of lecture. Detailed instructions and guidelines will be discussed in class and made available on Blackboard

Final Paper and Presentation:

Students will select a topic that has risk evaluation, management and communication aspects and write a final paper evaluating the challenges and better practices of risk analysis. As explained above, each student is responsible for developing, writing, and submitting their own assignment. Assignments should *not* exceed 8-10 pages (single-spaced, 12-point font, 1-inch margins) in length; page limits do *not* include references and/or figures. A list of topics to choose from will be discussed in class and made available on Blackboard. Additionally, students will prepare an oral presentation that will showcase their research question and findings. Each paper and presentation will be evaluated for originality, accuracy and thoroughness of research, attention to detail, and quality of finished project.

Academic Conduct: Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Section 11, Behavior Violating University Standards <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct at <http://policy.usc.edu/scientific-misconduct/>. Neither discrimination, sexual assault, nor harassment is tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity at <http://equity.usc.edu/> or to the Department of Public Safety at <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men at <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential-support, and the sexual assault resource center webpage at sarc@usc.edu describes reporting options and other resources. Students may not record lectures without written permission from the course instructor.

Support Systems: A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute at <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students.

The Office of Disability Services and Programs at http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information at <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Statement on Religious Observation Accommodations: USC policy grants students excused absences from class for observance of religious activities. Students may be given an opportunity to make up work missed because of religious observance. We are responsive to requests for an excused absence when made in advance. Please note that this applies only to religious activities that necessitate a student's absence from class and/or a conflict with a specific aspect of the course.

Course Schedule:

For the best learning experience, you are expected to have read the material listed below by the date it is discussed in class. Readings, topics, and deadlines may be adjusted throughout the semester depending on the progress of the class.

Week	Date	Topic	Readings	Notes
1	Jan 11, 13, 15	Intro & Course Overview (DG, MC) What is Risk? (nat sci view) (DG)	EH: Ch. 1, 2, 3 See Bb: Morello-Frosch et al. 2002, Basher 2006	
2	Jan 18	MLK HOLIDAY – NO CLASS		
2	Jan 20, 22	What is Risk? (social sci view) (MC)	See Bb: SREX Ch. 1, Mitchell 1989, Wisner, et. al., 2004	
3	Jan 25, 27, 29	Environ Pathogens & Contaminants (DG)	EH: Ch. 10 See Bb: Fleming et al. 2006, Wu 1999	Journal Article Presentation 1 Kaytee (Jan 27)
4	Feb 1, 3, 5	Oil & Chemical Spills (DG)	See Bb: Dalton & Jin 2010, Campagna et al. 2011	Journal Article Presentation 2 Mabel (Feb 3)
5	Feb 8, 10, 12	Climate Risk Assessments (MC)	EH: Ch. 4 See Bb: Eakins and Luers, 2006, Slovic 1999	Journal Article Presentation 3 Natalie (Feb 10)
6	Feb 15	PRESIDENTS' DAY – NO CLASS		
6	Feb 17, 19	Health Risk Assessments (MC)	See Bb: IHME 2013, Campbell-Lendrum, 2010, TBD	Risk Assignment 1 Due Feb 26
7	Feb 22, 24, 26	Extreme Weather Risk (wildfire & storms) (MC)	EH: Ch. 9, 10 See Bb: Kunreuther and Pauly, 2006	Journal Article Presentation 4 Sharon (Feb 24)
8	Feb 29, Mar 2, 4	Floods & Droughts (MC)	EH: Ch. 11, 12 See Bb: Morss et. al. 2005	Midterm Exam (Feb 29)
9	Mar 7, 9, 11	Anthropogenic Climate Risk Management (MC); Guest Speaker, R. Lempert, Rand Corp.	EH: Ch. 5 See Bb Smit et. al., 1999, Dow et. al. 2013, AR5 WGII Ch. 2	Journal Article Presentation 5 Austin (Mar 9)
10	Mar 14-18	SPRING BREAK – NO CLASS		
11	Mar 21, 23, 25	Earthquake Hazards & Risks (DG)	EH: Ch. 6 See Bb: Allen 2003, Stiphout et al. 2010, Hall 2011	Risk Assignment 2 Due Apr 1
12	Mar 28, 30, Apr 1	Water & Food Security (water & GMOs) (DG)	EH: Ch. 13 See Bb: Overpeck & Udall 2011, Kennett et al. 2012, Feakins 2014	Journal Article Presentation 6 Arash (Mar 30)
13	Apr 4, 6, 8	Shipping & Marine Spatial Planning; Guest Speaker, TBA (DG)	See Bb: Sebens et al. 2013	Journal Article Presentation 7 Liv (Apr 6)
14	Apr 11, 13, 15	Coastal Marine Resources (DG)	See Bb: Richmond et al. 2007, Newton et al. 2012	Journal Article Presentation 8 Jiachen (Apr 13)
15	Apr 18, 20, 22	Risk Communication (MC)	See Bb: Kaspersen et. al. 1988, Gray and Ropeik, 2002, Edwards et. al. 2002	
16	Apr 25, 27, 29	Wrap up & Paper Presentations (DG, MC)	TBA	Final Paper Due Apr 29
	May 6	Final Exam: Friday, May 6, 11:00 to 1:00 pm, WPH 200		