



## PPPM 407/507 - Seminar Hazard Mitigation Planning for Natural Hazards and Community Resilience

Winter 2015 (CRN 26786)

Instructor Josh Bruce, AICP

Office Hours Mon 10 – 11am

Thurs 1 – 1:45pm & by appointment

Office 1b Hendricks Hall

Class Time Tues/Thurs 2 – 3:20 pm

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### COURSE INFORMATION

#### Background

Communities around the world are increasingly challenged to anticipate, prepare for, and recover from extreme events. Of particular concern are climate driven increases in natural and environmental hazards such as floods, wildfires, landslides, severe storms, sea-level rise and coastal erosion. In addition, geologic hazards including earthquakes, tsunamis and volcanic eruptions pose significant regional catastrophic threats as exemplified by recent events in Japan, Chile, Haiti and other regions around the globe.

#### Course Description

This course introduces concepts of community resilience through an evaluation of natural, human and built system interactions. Specific areas of focus include vulnerability assessment, risk reduction, natural hazard planning and principles of community resilience. Emphasis will be placed on the nexus between land-use, economic development and natural hazards through the incorporation of sustainability and resilience concepts. Given the interconnected nature of community systems, this course is applicable to students from a range of disciplines including, but not limited to, planning, public policy, economics, business, design and environmental studies.

#### Course Objectives/Learning Outcomes

This course is designed to help students:

- Understand the range of environmental threats communities face;
- Apply principles of resilience within your field of study;
- Identify multi-objective strategies to mitigate risk;
- Be familiar with federal, state and local emergency management structures;
- Appreciate the interconnected and increasingly complex nature of community based systems.

You will learn these various tools and techniques through (1) assigned readings, (2) class discussions, (3) assignments, (4) an in-class mid-term exam; (5) an in-class final exam and a class project (graduate only).

This Course is offered with support from PPPM, Oregon Leadership in Sustainability, the UO's Community Service Center and the Federal Emergency Management Agency.

### Course Website

The course website is located on the University of Oregon's Blackboard system (<https://blackboard.uoregon.edu>). The class syllabus, announcements and other materials will be posted on the blackboard site. Please check the course website frequently for updates. Make sure that the University registrar has your correct email address. I will use this email address to communicate with you.

### Required Reading

There is one required textbook for this class. I have ordered copies at the University bookstore.

- Smith, Keith, *Environmental Hazards: Assessing Risk and Reducing Disaster*, Sixth Edition, Routledge, New York, 2009. (ISBN 978-0-415-68106-3 paperback).

In addition to the textbooks above, students will be required to read all or part of the following (available on the course blackboard site or on-line at the links provided below):

- Schwab, James C., *Hazard Mitigation: Integrating Best Practices into Planning*, American Planning Association Planning Advisory Service, 2010. (ISBN 978-1-932364-84-2 paperback). This book is available on-line as a PDF here: [http://www.fema.gov/media-library-data/20130726-1739-25045-4373/pas\\_560\\_final.pdf](http://www.fema.gov/media-library-data/20130726-1739-25045-4373/pas_560_final.pdf) or for purchase here: [https://www.planning.org/store/product/?ProductCode=BOOK\\_P560](https://www.planning.org/store/product/?ProductCode=BOOK_P560).
- Oregon Seismic Safety Policy Advisory Commission (OSSPAC), *The Oregon Resilience Plan*, Report to the 77<sup>th</sup> Legislative Assembly, Salem, 2010. This report is available here as a PDF: [http://www.oregon.gov/OMD/OEM/ossprac/docs/Oregon\\_Resilience\\_Plan\\_Final.pdf](http://www.oregon.gov/OMD/OEM/ossprac/docs/Oregon_Resilience_Plan_Final.pdf).
- Oregon Natural Hazard Mitigation Plan (TBD)
- Oregon Climate Adaptation Framework (TBD)
- Other Readings (TBD)

### Performance and Assessment (subject to change)

Your grade in this course will be based on the following components:

#### PPPM 407: Undergraduate Students

Attendance and active class participation	15%
Assignments (2 x 10%):	20%
Mid-Term Exam	25%
Class Presentation	10%
Final Exam	30%

#### PPPM 507: Graduate Students

Attendance and active class participation	15%
Assignments (2 x 5%)	10%
Mid-Term Exam	20%
Class Presentation	10%
Final Exam	25%
Research Project	20%

You may take the class Pass/Fail, but to achieve a Pass you must receive a passing grade on all assignments.

Late assignment policy: I strongly discourage submitting assignments late. Late assignments will receive a 10-percent penalty for each day past the due date. If you are unable to make it to class on the day an assignment is due, you may email your assignment to me prior to the class time and date that assignment is due.

I will hand out additional information about the grading system and evaluation rubric I will use the first week of class.

### **Make up Exams: Midterm and Final Exam**

Students who miss the midterm exam will receive a grade of zero for that exam unless there is a legitimate reason for missing the midterm exam (e.g. serious illness or family emergency).

Students must take the final exam to receive a grade in the course. Final examinations must be given during the scheduled final examination period. Faculty legislation prohibits the early administration of final examinations. A makeup final exam will be scheduled for students who miss the regularly scheduled final exam due to documented serious illness or family emergency. Written documentation is required.

### **Course Project (Graduate Students)**

Early in the term I will assign and discuss the course project. The purpose of the project is to apply techniques covered during class to an actual planning project. More detail to come. In short, students can expect to contribute to actual NHMP update project, likely for a county on the southern Oregon coast.

### **Computer Applications**

As with nearly every profession, computer applications will greatly enhance your efficiency and effectiveness as a planner. Toward that end, you will be using a variety of computer applications to complete various course activities. I expect all course assignments to be completed using a word processor. Additionally, some assignments may require use of a spreadsheet program for data analysis and graphing. You may also be required to use PowerPoint (or other presentation software) for a presentation at the end of the term on your final project.

### **Course Workload**

A general rule of thumb for the expected workload for a class is approximately 3-4 hours/week per credit hour. Thus, a four credit course will require approximately 12-16 hours of effort per week. Our class meets for three hours each week, so students should expect to spend an additional 9 to 13 hours per week studying for this course.

### **Writing**

This is a writing intensive course. If you struggle with writing, I strongly encourage you to get assistance. PPPM employs a part-time writing coach (Terrie Monroe) to work exclusively with students in department. Look for writing workshop announcements or visit during office hours for one-on-one assistance. Writing assistance is also available to OLIS students through Keli Osborn.

In addition, the UO has a Writing Lab: The Writing Lab begins week two of the term and closes at 5:00 pm the Wednesday of finals week. Free tutors are available. Upper-division and graduate student tutors are available on a drop-in basis or by appoint. (You must come to the writing lab to schedule your appointment.) 9:00am – 5:00pm, Monday – Friday, 72 PLC (Prince Lucien Campbell).

<http://tlc.uoregon.edu/subjects/writing/>

### Email

I will try to respond to all email within 48 hours of receiving them. That said, I get a lot of email. I also travel for work. So I ask that you please review Blackboard and the syllabus prior to sending a note about course logistics. Please use class sessions or office hours to raise topic specific questions.

### Missed Class Policy

If you miss a class, please arrange to get class notes from a classmate. Instructor lecture notes are not available.

### Incomplete Policy

Students are expected to behave in a professional manner and to turn in all materials at the designated time. In accordance with university regulations, an incomplete will only be given when “the quality of work is satisfactory but a minor yet essential requirement of the course has not been completed for reasons acceptable to the instructor.”

### Documented Disabilities

Students who have a documented disability and anticipate needing accommodations in this course should make arrangements with me as soon as possible. In these cases, I will request assistance from and coordination with the Counselor for Students with Disabilities. I may also request that the Counselor for Students with Disabilities send a letter verifying the disability.

## COURSE OUTLINE

Class	Date	Topic	Reading	Assignment
1	1/6	Course Introduction; Why Plan for Hazards?	Chapter 1 (Schwab)	
2	1/8	What are hazards & who cares?	Chapters 1 and 2 (Smith)	
3	1/13	Risk and Vulnerability: How should we think about hazards?	Chapters 3 and 6 (Smith) – Required; Chapter 7 (Smith) - Recommended	Assignment 1 posted
4	1/15	Assessing hazards and community vulnerability (guest lecture TBA).	Chapters 4 and 11(Smith) - Required; Chapters 9 and 10 Recommended	
5	1/20	How can we reduce hazard impacts? (Disaster cycle)	Chapter 5 (Smith); Chapter 2 (Schwab)	Assignment 1 due; Research Project Posted (grad only)
6	1/22	Hazard Planning Overview (US framework, funding, etc.)	Readings TBA	

<b>Class</b>	<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Assignment</b>
7	1/27	Integrating hazard mitigation through planning.	Chapters 3 and 4 (Schwab);	
8	1/29	Multi-objective strategies – strategic thinking	Readings TBA	
9	2/3	In class review and work session	None	
<b>10</b>	<b>2/5</b>	<b>MIDTERM</b>	<b>NONE</b>	<b>MIDTERM EXAM</b>
11	2/10	Resilience Overview	Oregon Resilience Plan; Additional Readings TBA	
12	2/12	Principles of Resilience	Stockholm Resilience Center – Principles of Resilience; Additional Readings TBA	Assignment 2 posted; 50% Research Project Draft due
13	2/17	The climate connection: What is hazard vs climate mitigation? Where does adaptation fit in? Steve Adams and Matt McRae Guest Lecture	Oregon Climate Adaptation Framework; Additional Readings TBA	
14	2/19	Disaster Recovery Planning Introduction	Disaster Recovery Framework	Assignment 2 due; Research Project Comments returned
15	2/24	Resilience Networks: Making resilience happen	Readings TBA	
16	2/26	Infrastructure Resilience - Vicki Elmer, Guest Lecture	Infrastructure and Today's Challenges (Elmer); Toward Infrastructural Ecologies (Brown); Creating Resilient Coastlines and Waterways (Brown)	
17	3/3	Hazard Planning Ethics	AICP Code of Ethics	
18	3/5	Facilitated Discussion	N/A	
19	3/10	Class presentations	Review all reading	Research Projects due (grad only)
20	3/12	Course wrap up and review	Review all reading	
<b>FINAL EXAM</b>	<b>3/16</b>	<b>THE FINAL EXAM IS SCHEDULED FOR MONDAY, MARCH 16 AT 12:30. THIS IS AN IN-CLASS EXAM FOR BOTH GRADUATE AND UNDERGRADUATE STUDENTS IN 117 FENTON HALL.</b>		

## **STUDENT EXPECTATIONS AND BEHAVIOR**

### **Inclusion Statement**

The School of Architecture and Allied Arts is a community that values inclusion. We are a committed to equal opportunities for all faculty, staff and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

### **Class Participation**

Students are expected to have obtained, read, and retained the readings for each week. In addition, students are expected to actively engage in their course work through class and group discussions.

### **Classroom Environment**

In order to create a classroom 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.

### **Professional Practice**

This course is a core course in the OLIS Certificate program and is an elective course in the CRP program. As such, 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.
- The classroom is a place of focused learning. This requires that students arrive on time, stay until the end of the class period, and refrain from non-learning activities (i.e. silence your phones and leave them in your bag during class time). Students who fail to adhere to these guidelines will be asked to leave for the remainder of the class session.
- I expect all course assignments to be completed using a word processor.

### **Academic (Mis)Conduct**

You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at [conduct.uoregon.edu](http://conduct.uoregon.edu)) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor.

In the context of group assignments, all students are expected to contribute to the project. In these cases, you are expected to conduct yourselves as you would if you were working as part of a professional team. Please review the AICP code of ethics for additional direction on professional conduct for planning professionals (<https://www.planning.org/ethics/ethicscode.htm>).

### **Plagiarism**

Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at:

[www.libweb.uoregon.edu/guides/plagiarism/students](http://www.libweb.uoregon.edu/guides/plagiarism/students).

### **Discrimination and Sexual Harassment**

The UO is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment. These include sexual assault, domestic and dating violence and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), know that you are not alone. UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. Please be aware that all UO employees are required reporters. This means that if you tell me that such behavior is occurring, I have a duty to report that information to my supervisor or the Office of Affirmative Action and Equal Opportunity. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. The UO's goal is to make sure that you are aware of the range of options available to you and have access to the resources you need. If you wish to speak to someone confidentially, you can call UO's 24-hour hotline at (541) 346-SAFE to be connected to a confidential counselor to discuss your options. You can also visit the [SAFE website](http://safe.uoregon.edu) at [safe.uoregon.edu](http://safe.uoregon.edu).