URPL 590 – Planning for Resilience to Natural Hazards

University of Wisconsin – Madison
Department of Urban and Regional Planning
Spring 2016

Instructors
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Mondays, 1:00 – 3:30pm
Lectures: 208 Old Music Hall
Labs: 109 Old Music Hall
Office Hours: After class or by appointment. Please note that Prof. Göçmen has additional office hours Wednesdays, 1–2 pm.

Enrollment limit – 18 students

Course Summary
Many sources have documented a steady increase in the occurrence of natural disasters, as well as an even larger increase in associated economic losses and people impacted. What have we learned from disasters such as Hurricane Katrina and Superstorm Sandy? Why do some communities bounce back quicker from disasters than others? What can be done to increase resilience to natural hazards? This course will explore the theoretical underpinnings for hazard mitigation and disaster recovery, as well as planning approaches to increase resilience to natural hazards. The central case study will be how New Orleans has recovered from Hurricane Katrina and whether it is a more resilient city as a result. Students will evaluate decision tools that promote hazards resilience and prepare a case study using multimedia technologies to explore how local planners are using data, tools, methods, and policies to help make their communities more resilient.

Learning / Course Objectives
This course intends to give students a theoretical background and practical approaches to planning to increase community resilience to natural hazards. At the end of the course, the students are expected to have the following knowledge, skills, and values:

Planning knowledge: As an outcome of the course, students will learn the cycle of activities that surround planning and responding to natural disasters. They will also learn
the principles of building community resilience to natural hazards and various planning approaches to address natural hazards. In addition, students will learn the institutional context within which natural hazard mitigation and recovery planning occurs.

**Planning skills:** As an outcome of this course, students will gain the ability to find, evaluate, and use decision tools to address natural hazards. They will also gain the ability to analyze and communicate a community approach to building resilience to natural hazards through a multimedia case study. In addition, students will further their written, oral, and graphic communication skills.

**Planning values and ethics:** As an outcome of this course, students will develop an understanding of how to create sustainable futures and an appreciation of equity concerns in planning.

**Course Requirements and Format**
We will meet once a week and our meetings will primarily be in a seminar format. For a seminar format to be successful, full participation of all members is required. Thus, the students are expected to attend all the sessions, be prepared to discuss assigned material, show respect for and interest in the opinions of others, and meaningfully contribute to our discussions. We will discuss assigned readings, but you are encouraged to do further research, suggest other readings, and bring other material to class. We will also have virtual meetings with experts in the field of planning for natural hazards. The students are expected to complete four assignments, a literature reflection paper, a blog post on 100 Resilient Cities, an evaluation of a resilience decision tool, and a case study on resilience. Details about each requirement will be available later in the term.

Class material will be available on Box. Please check regularly. Also, if you miss class, please find out (from fellow classmates) what you missed.

**Grading and Evaluation**
The students will be evaluated on the above four types of activities and their grades will be based on the following: course participation - 10%; literature reflection - 20%; 100 Resilient Cities exercise – 15%, evaluation of a decision support tool – 15%, and resilience case study - 40%.

Final grades are assigned based on the following scale: 93-100 – A; 88-92 – AB; 83-87 – B; 78-82 – BC; 70-77 – C, 60-69 – D; and 0-59 – F.

Please note that:
- The participation grade will involve both the quality and quantity of your participation and attendance. Attending all classes but not speaking up will result in the loss of many points.
- Late submissions will be penalized by one point each day that it is late; no late assignments will be accepted after they have been graded and returned to students.
- The case study is due May 11th; please note that no late submissions will be accepted.

**Academic Integrity**
We expect high academic integrity from each student. It is assumed that students are familiar with the policies, definitions, and procedures regarding academic misconduct, as specified in UWS 14. Details of the policies, including your rights and responsibilities can be found at:
[http://www.wisc.edu/students/saja/misconduct/UWS14.html](http://www.wisc.edu/students/saja/misconduct/UWS14.html) Under the policies regarding academic misconduct, an instructor has discretion as to which penalties will be imposed in the case of academic misconduct. We reserve the right to assign a failing grade to a particular assignment, report the incidence to the Student Advocacy and Judicial Affairs office within the Dean of Students Office, or impose other penalties.

Please remember that using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator (including the Web) and cheating are two common acts of academic misconduct.

**Civility in the Classroom**
It is a requirement of this class that you respect your classmates, instructors, and our guests and that you not engage in non-class e-activities (e.g., checking and responding to e-mail, texting, checking Facebook and Twitter) during our meetings. Engagement in non-class e-activities is a disruption for your instructor and other presenters, and is an impediment to your processing and retaining class-related information. We reserve to right to ask you to leave the classroom and give a penalty on your participation grade if you engage in non-class e-activities.

**Special Accommodations**
If you have a disability or conflict with our course schedule that we need to be aware of, please notify us and, if necessary, provide proof of it within the first two weeks of class.

**Course Schedule**

**Week 1 – January 25**
Introductions, review of syllabus, and Extreme Event Game
Week 2 – February 1
Introduction to Natural Hazards and Disasters

Readings:

Week 3 – February 8
Introduction to Resilience

Readings:
Week 4 – February 15
Planning for Resilience to Natural Hazards

Readings:

- The 2014 special edition of the Journal of the American Planning Association (volume 80, issue 4) on natural hazard mitigation has several articles that will be of interest.

Week 5 – February 22
Planning for Resilience to Natural Hazards: Initiatives of the American Planning Association, the Association of State Floodplain Managers, and the Rockefeller Foundation

Web Resources:
Hazards Planning Center, American Planning Association
https://www.planning.org/nationalcenters/hazards/

A “No Adverse Impact” Approach to Managing Hazards, Association of State Floodplain Managers
http://www.floods.org/index.asp?menuid=349 (Background)
http://www.floods.org/index.asp?menuid=460 (Publications)
http://www.floods.org/index.asp?menuid=432 (Case Studies)

100 Resilient Cities Initiative, Rockefeller Foundation
http://www.100resilientcities.org/
Week 6 – February 29 (meet in Goodnight Hall, Room 215, 1975 Willow Dr.)
Planning for New Orleans after Hurricane Katrina

A webinar with a panel of speakers with a focus on rebuilding after Hurricane Katrina.

Webinar speakers:
- Robert W. Becker, FAICP, Chief Executive Officer, New Orleans City Park
- Tim Jackson, AICP, Owner, Tim Jackson Consulting, LLC and Chair, New Orleans City Planning Commission, 2001-9

Readings:

Supplemental Literature:

Web Resource:
New Orleans Plan Database
http://nolaplans.com/

Due: Assignment #1 - Literature Reflection Paper
Week 7 – March 7 (meet in Goodnight Hall, Room 215, 1975 Willow Dr.)
Planning for Resilience along the Gulf Coast
A webinar with a panel of speakers with a focus on current planning efforts to improve resilience in New Orleans and the Gulf Coast.

Webinar speakers:
• Terri Wilkinson, AICP, Director, Jefferson Parish Planning Department
• Michelle Gonzalez, Director, Jefferson Parish Floodplain Management & Hazard Mitigation
• Tracie Sempier, Coastal Storms Outreach Coordinator, Mississippi-Alabama Sea Grant Consortium
• Ramiro Diaz, Architectural Designer, Waggonner & Ball Architects, New Orleans

Readings:

Tools: Dutch Dialogs, Coastal Community Resilience Index

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Week 8 – March 14 (meet in Goodnight Hall, Room 215, 1975 Willow Dr.)
Challenges to Recovery Planning

Webinar speaker:
• N. Emel Ganapati, Associate Professor of Public Administration, Florida International University

Readings:

Due: Assignment #2 - 100 Resilient Cities Blogpost

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Week 9 – March 21
Spring Break - No Class
Week 10 – March 28
Decision Support Tools to Improve Resilience to Natural Hazards

Readings:

Week 11 – April 4
The Great Lakes Coastal Resilience Planning Guide as a Framework for Resilience Case Studies

Guest speaker:
- Jeff Stone, Project Manager, Association of State Floodplain Managers

Tool:
Great Lakes Coastal Resilience Planning Guide
http://greatlakesresilience.org/

Week 12 – April 11
Addressing Natural Hazards in Wisconsin

Guest speaker:
- Katie Sommers, Disaster Response & Recovery Planner and/or Roxanne Gray, Mitigation Section Supervisor, Wisconsin Emergency Management

Reading:

Due: Assignment #3 - Resilience Decision Tool Evaluation

Week 13 – April 18
Tackling Barriers to Green Infrastructure

Guest speaker:
- Julia Noordyk, Coastal Storms Outreach Specialist, University of Wisconsin Sea Grant Institute

Tool:
Tackling Barriers to Green Infrastructure: An Audit of Municipal Codes and Ordinances
Week 14 – April 25
Building a Disaster Resilient University

Guest speaker:
• Tom McClintock, Land Information and Computer Graphics Facility, University of Wisconsin-Madison

Tool:
HAZUS-MH
https://www.fema.gov/hazus

Week 15 – May 2
Resilience Case Study Practice Presentations

Due: Assignment #4 - Resilience Case Study (final draft)

Exam Period - Wednesday, May 11, 5:05pm
Resilience Case Study Public Presentations

Due: Assignment #4 - Resilience Case Study (final)

Revised – March 2, 2016