University of Illinois at U-C **Department of Urban and Regional Planning**
UP 438 Disasters and Urban Planning **Instructor: Rob Olshansky**
Fall 2016
M-W 9:00-10:20

Syllabus

COURSE OBJECTIVES

The purpose of this course is to provide an introduction to the roles of planners in preparing for and rebuilding after disasters. Planners are concerned with the long-term aspects of disaster: the processes of pre-disaster hazard mitigation and post-disaster recovery. The course will only minimally touch on disaster response and emergency preparedness.

The focus is mostly on American planning practice, at the local government level, within the context of national policies. For understanding recovery after large disasters, however, we will rely heavily on international cases, because they provide useful lessons. We also will spend one session on international disaster risk reduction policies.

The emphasis is on planning, and this 400-level course is aimed primarily at the graduate level, so the course is especially appropriate for graduate students in urban planning. It is also suitable for undergraduate planning students, provided that students participate in the course at a professional level (which you will soon be). It is also suitable for students from other disciplines (civil engineering, landscape architecture, architecture, economics, etc.), who appreciate the opportunity to see how planners look at the world: multidisciplinary, action-oriented, strategic.

In terms of practical skills, you should learn:

- The basic emergency management laws and framework in the U.S., and how urban planning fits into them;
- The basic characteristics and principles of hazard mitigation planning and recovery planning;
- The details of the U.S. system of hazard mitigation and recovery;
- The function and contents of a local hazard mitigation plan
- The challenges of post-disaster recovery in a variety of U.S. and international settings;
- Current frontiers regarding planning for "resilience;" and
- Some of the current weaknesses in all of the above.

The course will include basic readings on all the above topics, coupled with case examples, a hazard mitigation group project, and a group project on international recovery.

All course materials are provided through Illinois Compass. This will include all readings, a guide for each week's material, reading questions for most class sessions, and a blog where you will post your responses to the reading questions.

COURSE COMPONENTS

- Readings (approx 700 pages), attendance, blog postings in response to reading questions, and participation in class discussions. (25% of course grade, 100 points).
- Two integrative essays (25%, 100 points)
- Group presentation and report on a mitigation methods topic (25%, 100 points)
- Group presentation and report on a recovery case (25%, 100 points)

SCHEDULE

The schedule is organized as follows:

- Overview of disasters as phenomena, basic disaster concepts, social context of disasters; concept of community resilience; evolution of U.S. emergency management system (3 weeks)
- Hazard Mitigation (4 weeks)
- Post-disaster Recovery (6 weeks)

Week	Readings	Monday	Wednesday
8/22	Tierney, Lindell, &Perry, Chapter 1 Tierney (2014), Chapter 3	Introduction, Defining disaster, phases of emergency management	Vulnerability and social roots of disaster
8/29	Tierney (2014), Chapters 6,7 Rubin, Chapters 3,4,5 FEMA 2014	Community Risk and Resilience	History: Early US disasters, expansion of federal role, FEMA, DHS *Introduce Mitigation Assignment*
9/5	Torsell and Nagel 2015 Boyd 2011 (reference: Lindsay 2012)	~~Labor Day~~	Structure of US system today; Federal funding system for mitigation and recovery
9/12	44CFR201 FEMA 2013: Intro, Task 5, Task 6	Mitigation, State and Federal Responsibilities	Mitigation planning
9/19	FEMA 2011 (NFIP) Illinois DNR 2001 King 2013 National Earthquake Hazards Reduction Program: About Us 2016 Rubin 2006 Earthquake policy news items from Los Angeles, Oregon, and Seattle. (reference: Wiley 2000)	National Flood Insurance Program	Policies for earthquake safety
9/26	Olshansky & Kartez 1998 FEMA 2013: Task 9 (reference: Godschalk 2010)	Making mitigation happen	Mitigation presentations (2)
10/3		Mitigation presentations (2)	Mitigation presentations (2) *Mitigation Team Reports Due* *Hand out Essay 1*
10/10	Passerini 2000 Jha et al 2010, Intro Johnson&Olshansky 2016 FEMA 2011, NDRF Schwab, ed., 2014, Exec Summary Schwab, ed., 2014, Chapter 6	Recovery from big disasters	Recovery planning in the US *Essay 1 due* *Assign International Recovery Case groups*

10/17	Olshansky 2006 Rivlin 2015 (Reference: Olshansky et al 2008) Olshansky&Johnson 2010 City of New Orleans, 2015 NORA 2015	New Orleans 2005-6	Skype Guest: Jeff Hebert, Deputy Mayor, City of New Orleans
10/24	Schwab ed., 2014, Chapter 1 HUD, 2015, pp. 1-13 HUD, 2015, pp. 19-30 Poland, 2009 Rockefeller Foundation (Reference Bolstad 2016)	Resilience revisited Skype Guest: Laurie Johnson	100 Resilient Cities Guest: Aaron Koch, Chief Resilience Officer, City of Chicago
10/31	Balachandran 2010 (reference: Thiruppugazh 2010) Iuchi, Maly & Johnson 2015	Recovery case: 2001 Gujarat Earthquake Guest: B.R. Balachandran	Recovery case: 2011 Japan tsunami
11/7		International recovery presentations	International recovery presentations
11/14		International recovery presentations	TBD *Recovery Reports due*
Break	Happy Thanksgiving!		
11/28	UNDP 2014 World Bank GFDRR 2013 Overseas Development Institute 2015 UNDP 2013 UNISDR 2015	International development and disaster risk reduction Skype Guest: Reshmi Theckethil, UNDP, Climate Change and Disaster Risk Reduction Team	TBD*
12/4	TBD*	TBD*	Wrap-up: Q&A *Distribute Essay 2*

*The last few class meetings will likely consist of a combination of the following current cases:
Cedar Rapids 2008 flood and ongoing planning
Sea level rise, and living with water: Florida, New York (NY Rising, Rebuild by Design)

Final Exam schedule—8:00-11:00 on Friday December 16th (no exam, but *Essay 2 due* at this time)

READINGS

All assigned readings are listed below. Readings without web links are in pdf files on the Compass site.

44 CFR Secs 201and 206, Hazard Mitigation Planning and Hazard Mitigation Grant Program http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&sid=e63c0b17b2c76390184c081f4e63611d&rgn=div5&view=text&node=44:1.0.1.4.53&idno=44

Balachandran, B.R. 2010. Planning the Reconstruction of Bhuj, pages 159-203 in Shirish Patel and Aromar Revi, eds., *Recovering from Earthquakes: Response, Reconstruction, and Impact Mitigation in India*, Routledge.

Bolstad, Erika. 2016. Coastal Cities Look to Resilience Chiefs to Combat Climate Change. *Scientific American*, May 23, 2016. http://www.scientificamerican.com/article/coastal-cities-look-to-resilience-chiefs-to-combat-climate-change/

Boyd, Eugene. 2011. *Community Development Block Grant Funds in Disaster Relief and Recovery.* Congressional Research Service Report for Congress, Washington, D.C. Order Code RL33330, September 21, 2011. http://www.fas.org/sgp/crs/misc/RL33330.pdf

City of New Orleans. 2015. *Resilient New Orleans*. Read Executive Summary, pp. 4-5, and skim the rest. http://resilientnola.org/wp-content/uploads/2015/08/Resilient_New_Orleans_Strategy.pdf

Earthquake policy news items:

"L.A. landlords and tenants will share earthquake retrofit costs under deal approved by City Council," *LA Times*, January 13, 2016. http://www.latimes.com/local/lanow/la-me-ln-retrofit-20160113-story.html

"How Oregon Schools Are Preparing For A Megaquake" *Oregon Public Broadcasting*, September 29, 2015. http://www.opb.org/news/series/unprepared/oregon-earthquake-schools-infrastructure-cascadia-subduction/

"'We should be screaming' with outrage: State does little to protect schoolkids from earthquake, tsunami," *Seattle Times*, July 13, 2016. http://www.seattletimes.com/seattle-news/times-watchdog/is-your-child-safe-washington-state-does-little-to-protect-older-schools-from-earthquakes-tsunami/

"Buildings that kill: The earthquake danger lawmakers have ignored for decades," *Seattle Times*, May 16, 2016. http://www.seattletimes.com/seattle-news/times-watchdog/buildings-that-kill-the-earthquake-danger-lawmakers-have-ignored-for-decades/

FEMA. 2016. FEMA.gov: *History*; *Statutory Authority*; *Executive Order 12127*; *A New Mission, Homeland Security*. http://www.fema.gov/about-agency. Also look at FEMA brochure, http://www.fema.gov/pdf/about/brochure.pdf

FEMA. 2013. *Local Mitigation Planning Handbook*, Introduction, Task 3, Task 5, Task 6, Task 9, and Worksheet 6.1. http://www.fema.gov/media-library-data/20130726-1910-25045-9160/fema_local_mitigation_handbook.pdf

FEMA. 2011. *Answers to Questions About the NFIP*, FEMA F-084 (pp. 1-8, 24-26) http://www.fema.gov/media-library-data/20130726-1438-20490-1905/f084_atq_11aug11.pdf

FEMA. 2011. *National Disaster Recovery Framework: Strengthening Disaster Recovery for the Nation*. September, 2011. http://www.fema.gov/pdf/recoveryframework/ndrf.pdf

Godschalk, David R. 2010. "Integrating hazards into the implementation tools of planning," Chapter 5 (pp. 47-58) in Schwab, James C., ed., *Hazard Mitigation: Integrating Best Practices into Planning*, Planning Advisory Service Report No. 560, American Planning Association, Chicago.

HUD Office of Policy Development and Research. 2015. *Evidence Matters*, Winter 2015. http://www.huduser.org/portal/periodicals/em/EM_Newsletter_winter_2015.pdf
Federal Disaster Policy: Toward a More Resilient Future, pp. 1-13.
Preparing for the Next Disaster: Three Models of Building Resilient Communities, pp. 19-30

Illinois Department of Natural Resources. 2001. *Floodplain Management Quick Guide*. http://www.dnr.illinois.gov/WaterResources/Documents/Resman_ILFPMQuickGuide.pdf

Iuchi, Kanako; Elizabeth Maly; and Laurie Johnson. 2015. Three Years After a Mega-Disaster: Recovery Policies, Programs and Implementation After the Great East Japan Earthquake. Pages 29-46 in *Post-Tsunami Hazard*, V. Santiago-Fandiño et al (eds.), Springer International.

Jha, Abhas K, Jennifer Duyne Barenstein, Priscilla M. Phelps, Daniel Pittet, and Stephen Sena. 2010. *Safer Homes, Stronger Communities: A Handbook for Reconstructing after Natural Disasters*, World Bank, International Bank for Reconstruction and Development,Washington D.C. (Introductory notes and guiding principles).
Full report is at https://www.gfdrr.org/sites/gfdrr.org/files/SaferHomesStrongerCommunitites.pdf

Johnson, Laurie A., and Olshansky, Robert B. 2016. *After Great Disasters: How Six Countries Managed Community Recovery*. Policy Focus Report, Lincoln Institute of Land Policy, Cambridge MA. https://www.lincolninst.edu/pubs/3679_After-Great-Disasters
Chapter 1 (pp. 6-13)
Chapter 8 (pp. 57-63)

King, Rawle O. 2013. *The National Flood Insurance Program: Status and Remaining Issues for Congress*. Congressional Research Service report for Congress R42850, February 6, 2013. http://www.fas.org/sgp/crs/misc/R42850.pdf

Lindsay, Bruce R. 2014. *FEMA's Disaster Relief Fund: Overview and Selected Issues*. Congressional Research Service, Report R43537. https://www.fas.org/sgp/crs/homesec/R43537.pdf

National Earthquake Hazards Reduction Program, 2016, *About Us*. http://www.nehrp.gov/about/history.htm

New Orleans Redevelopment Authority (NORA). 2015. Year in Review. http://redevelop.nola.gov/NORA-YiR-2015.pdf

Olshansky, Robert B., and Laurie A.Johnson. 2010. *Clear as Mud: Planning for the Rebuilding of New Orleans*. APA Planners Press, Chicago, IL. (Chapter 8: Conclusions, pp. 217-242).

Olshansky, Robert B., and Jack D. Kartez. 1998. "Managing Land Use to Build Resilience," Chapter Six in R.J. Burby, ed., *Confronting Natural Hazards: Land-Use Planning for Sustainable Communities*, Washington, D.C.: National Academy/Joseph Henry Press, pp. 167-201.

Olshansky, Robert B., Laurie A. Johnson, Jedidiah Horne, and Brendan Nee. 2008. Planning for the rebuilding of New Orleans. *Journal of the American Planning Association.* 74(3): 273-287.

Olshansky, Robert B, 2006. "Planning after Hurricane Katrina," *Journal of the American Planning Association*, 72(2): 147-153, 2006.

Overseas Development Institute, World Bank. 2015. *Unlocking the 'Triple Dividend" of Resilience: Why Investing in Disaster Risk Management Pays Off*. https://www.gfdrr.org/sites/default/files/publication/unlocking_triple_dividend_resilience.pdf

Passerini, Eve. 2000. Disasters as agents of social change in recovery and reconstruction. *Natural Hazards Review*, 1(2) 67-72.

Poland, Chris. 2009. *The Resilient City: Defining What San Francisco Needs From Its Seismic Mitigation Policies*, SPUR, February 2009. http://www.spur.org/sites/default/files/publications_pdfs/SPUR_Seismic_Mitigation_Policies.pdf

Rivlin, Gary. 2015. *Katrina: After the Flood*, Simon & Schuster, NY. (pages 158-223)

Rockefeller Foundation, Resilient City Materials.
Rockefeller Foundation. 2015. *City Resilience Framework*. http://www.100resilientcities.org/page/-/100rc/Blue%20City%20Resilience%20Framework%20Full%20Context%20v1_5.pdf
Chicago's Resilience Challenge. http://www.100resilientcities.org/cities/entry/chicago#/-_/
100 Resilient Cities: About Us. http://www.100resilientcities.org/about-us#/-_/

Rubin, Claire, editor. 2007. *Emergency Management: The American Experience 1900-2005*. Fairfax, VA: Public Entity Risk Institute.
Chapter 3: The Expanding Role of the Federal Government: 1927-1950, pp. 49-80.
Chapter 4: The Formative Years: 1950-78, pp. 81-110.
Chapter 5: Federal Emergency Management Comes of Age: 1979-2001, pp. 111-160.

Rubin, Claire. 2006. *Timeline: 100 Years of Seismic Safety in California*. Prepared for California Seismic Safety Commission. http://www.seismic.sdsu.edu/pdf.files/100_Years_Seismic_Safety.pdf

Schwab, James, editor. 2014. *Planning for Post-Disaster Recovery: Next Generation*, Chicago, Illinois: American Planning Association, Planning Advisory Service Report 576. https://www.planning.org/pas/reports/pdf/PAS_576.pdf
Executive Summary, pp. 6-14.
Chapter 1: The Vision of a Resilient Community, by James Schwab, pp. 16-23.
Chapter 6: Long-term Recovery Planning: The Process of Planning, by Laurie Johnson, pp. 92-118

Thiruppugazh, V. and Sudhir Kumar. 2010. Lessons from the Gujarat Experience: Disaster Mitigation and Management, pages 223-237 in Shirish Patel and Aromar Revi, eds., *Recovering from Earthquakes: Response, Reconstruction, and Impact Mitigation in India*, Routledge.

Tierney, Kathleen J., Michael K. Lindell, and Ronald W. Perry. 2001. *Facing the Unexpected: Disaster Preparedness and Response in the United States*. Washington, D.C.: Joseph Henry Press.
Chapter 1:Conceptualizing disasters and their impacts, pp. 1-25;

Tierney, Kathleen. 2014. *The Social Roots of Risk: Producing Disasters, Promoting Resilience*. Stanford CA: Stanford Business Books.
Chapter 3: A Different Perspective: The Social Production of Risk, pp. 31-49
Chapter 6: Communities and Societies at Risk, pp. 125-159
Chapter 7: Defining Resilience in Relation to Risk, pp. 160-196

Torsell, Carolyn V., and Jared C. Nagel. 2015. *Federal Disaster Assistance Response and Recovery Programs: Brief Summaries*. Congressional Research Service Report for Congress, Washington, D.C. Order Code RL31734, July 9, 2015. http://fas.org/sgp/crs/homesec/RL31734.pdf

UNDP. 2014. *Human Development Report 2014, Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. *Report Summary*. http://hdr.undp.org/sites/default/files/hdr14-summary-en.pdf

UNDP. 2013. Protecting Development from Disasters, Executive Summary. http://www.undp.org/content/dam/undp/library/crisis%20prevention/DRRexecutivesummary2013finalv2.pdf

UNISDR. 2015. *Chart of the Sendai Framework for Disaster Risk Reduction*. http://www.unisdr.org/files/44983_sendaiframeworksimplifiedchart.pdf

Wiley, Kip. 2000. *A History of the California Seismic Safety Commission*, SSC 2000-04, December 2000. Look at pages 9-45. http://www.seismic.ca.gov/pub/CSSC_HISTORY.pdf

World Bank, Global Facility for Disaster Risk Reduction (GFDRR). 2013. *Building Resilience: Integrating Climate and Disaster Risk into Development*. Read Executive Summary, pp. vii-ix. http://www.worldbank.org/content/dam/Worldbank/document/SDN/Full_Report_Building_Resilience_Integrating_Climate_Disaster_Risk_Development.pdf

ASSIGNMENTS

Readings and Participation

Students are expected to complete all readings prior to class, and are expected to contribute to class discussions with comments and questions. The instructor will post reading questions on Compass prior to most class sessions, and students will submit responses to blog postings on the Compass site.

Everyone should be prepared to participate in class discussions, and instructor will call on students randomly in class. Attendance is expected, but attendance alone does not constitute participation. Students are expected to participate in the course at a professional level.

Integrative Essays

To ensure that each student understands the basic elements of mitigation and recovery, two integrative essays will be assigned. For each essay, the instructor will distribute a question or situation, to which

students will provide concise responses of about two to four pages. These will give each student an opportunity to show that they absorbed, integrated, and made sense of the material covered in class and readings. Essays will be expected to describe the key aspects of each assigned topic in a manner that is factually correct, thorough in understanding of the topic, readable, clearly organized, grammatically correct, and concise.

Report on Hazard Mitigation Actions

In groups, students will research ways to mitigate the effects of floods, hurricanes, earthquakes, wildfires, tsunamis, or tornadoes, as applied to six selected US cities. Each group will make a presentation to the class, proposing the highest priority mitigation methods for two types of natural hazards in their city. Each group also will review the work of one of the other groups.

Report on an International Recovery Case

In groups, students will research the recovery process following a large U.S. or international disaster that occurred within the past two decades. Each group will prepare a presentation to the class and submit a report summarizing their findings. Each group also will critique one of the other groups.

Student Conduct

The Department of Urban and Regional Planning (DURP) is committed to creating an environment of inclusion and opportunity that is rooted in the goals and responsibilities of practicing planners. Conduct that interferes with the rights of another or creates an atmosphere of intimidation or disrespect is inconsistent with the environment of learning and cooperation that the program requires. By enrolling in class in the Department of Urban and Regional Planning, students agree to be responsible for maintaining a respectful environment in all DURP activities, including classes, projects, and extracurricular programs. We will be governed by the University Student Code (http://admin.illinois.edu/policy/code/). . See Student Code Article 1—Student Rights and Responsibilities, Part 1. Student Rights: §1-102 In the Classroom.