PLANNING FOR DISASTERS, RECOVERY AND RESILIENCE

This course focuses on the challenges presented by the changing physical, social, economic, and policy causes and consequences of natural and human-made disasters. Particular attention will be given to basic issues of land use and development, to the need for pre-and post disaster hazard mitigation and to post disaster recovery, as well as to factors affecting community recovery and long term resilience. We will also analyze legal, institutional and governmental policies and regulations in the context of the cycle of preparedness, response and recovery.

The course will concentrate on disaster planning in the United States in the context of the increased urgency presented by climate change and the need for sustainable development, together with the constraints of fragmented government and private sector responses. Case studies will be drawn from around the U.S., with particular emphasis on Hurricane Sandy in New York City and Hurricane Katrina in New Orleans, together with selected comparisons from other cities and countries. We will examine a variety of issues and planning tools for hazard mitigation, risk and vulnerability analysis, urban design, and local stakeholder involvement-- all as part of effective planning for pre- and post- disaster response and recovery.

There will be guest speakers working in the field to provide hands-on experience in disaster prevention and recovery and we will have an inside tour of the NYC Office of Emergency Management(all dates contained in the syllabus and to be confirmed early in the semester).

Readings

Books are available at Book Culture Book Store

James Schwab, *Planning for Post-Disaster Recovery: Next Generation*, American Planning Association: PAS576, Planners Advisory Publications, 2014, paperback (*Please note: This publication has been delayed and will not be in the Bookstore. We will be using an advance PDF copy which is posted on Courseworks.*)


Additional required and recommended readings are noted under each topic and are available on line and on Courseworks.

**Student Requirements**

**Class Presentations and Discussions:** Each student is to write a 2-4 page paper on the readings for that week and submit to the instructor until mid-semester. For part of each class session September 9 through October 14, two or three students will be asked to discuss that week’s suggested readings, raise critical questions and lead a short discussion on the issues in the readings. In advance of the class meeting, those students should communicate with each other and prepare a short list of discussion topics and questions to distribute to the class.

**Midterm Written Assignment: This assignment is due on October 21st**

Students write a 7-10 page essay providing a critical look and analysis of the readings and cases in the first half of the semester on one of the following suggested topics and assertions:

Social and economic vulnerability to disasters: “There is no such thing as a natural disaster”

Climate change and climate hazards “ Since changes in climate and data about the frequency and impact of climate hazards are so uncertain it is almost impossible for decision makers to provide transparency, reliable data and certainty to users at the national, state and city levels”

Professional planning tools and roles and their successes and constraints: “Effective planning occurs only after a disaster”

Federal and local government policies responding to disasters: “Politics and money always count most, even in a disaster”

Political lessons from Hurricane Katrina and Hurricane Sandy before and after the storms: “Professional planners have had only a limited impact on the rebuilding process because of the lack of response to environmental justice issues”.
Effective planning tools for hazard mitigation and community rebuilding do exist and can be systematically employed by many communities. “Very few communities and jurisdictions in the United States have been engaged in long range hazard mitigation and effective planning for disaster recovery.”

**Final Research/Issue Paper:** Students will prepare an issue paper that deals with some aspect(s) of disaster mitigation, risk, response, recovery, or rebuilding. Students should choose a topic that is of personal interest to them and that relates to the themes and issues raised during the semester. As much as possible, the paper should be written from the point of view of a planner with a government agency or a nonprofit group or a community. It should include the definition of the specific problem faced by the community, city, state, or region, the existing policies and regulations, the potential action alternatives and constraints, and your specific recommendations for addressing the problem or issue. The paper should be 15-20 pages in length. Students will present PowerPoint presentations of their work during the last two class sessions and each presentation will take approximately 15 minutes.

A 3-4 page detailed outline of the final paper is due on October 24th. We will schedule 10-15 minute Powerpoint presentations by each student during the week of December 2nd. The final written paper is due on December 10th.

Note: subjects for all papers and assignments should be discussed with your instructor in advance of your choices for the midterm and final assignments.
Schedule of Classes

Week One: September 2 Introduction

Course Overview
Types of disasters
Major concepts in disaster analysis
Planners’ roles in managing disasters

Readings
Schwab, J. 2014; Courseworks Chapter 1, Chapter 3, pp.1-4, 12-13
Phillips, B. 2009, pp. 4-23

Week Two: September 9 Narratives and meanings of some historical and recent disasters

Symbolic, social, cultural, political interpretations of disasters
Violence, fear, terrorism – recent interpretations of human-caused disasters

Readings


(Note: Please choose at least two essays on historical examples from the list below)

Kevin Rozario, “Making Progress: Disaster Narratives and the Art of Optimism in Modern America”, pp.27-54 in Vale, Lawrence & Campanella, Thomas, (eds.) The Resilient City, Courseworks


Beatrice Chen, ““Resist the Earthquake and Rescue Ourselves”: The Reconstruction of Tangshan after the 1976 Earthquake”, pp.235-254 Courseworks

Savitch, H.V. pp. 3-23, pp.44-63
Week Three September 16 Hazard Identification and Risk Analysis,

Identifying hazards
Variety and incidence of natural disasters
Beginning understanding of tools of assessment, measurement, response
Planning and Hazard Mitigation

Readings

Schwab, 2014, Chapter 3, pp.14-22 and browse through the rest of the chapter for cases and examples

Schwab, James C. Schwab, editor, 2008, Planning and Drought , Chapters 1, 2, and 3
Laurie Johnson, Laura Samant and Suzanne Frew, Planning for the Unexpected: Land – Use Development and Risk, pp.1-23, Courseworks


Topping, Kenneth C.2008 “Land Use Planning /Policy Guide 101 for Earthquakes(PowerPoint presentation,) Courseworks

Week Four September 23 Climate Change: New Challenges and Threats

Climate Change and the environment
Sea level rise, ice melt: scientific interpretations and measurements
Political and governmental interpretations and responses

Readings


"SIRR Report" NYC Office of the Mayor, “A Stronger, More Resilient New York” 2013 Read pp.19-65 on coastal protection and climate change, www.nyc.gov/html/sirr Please note that this is an important study and a reference work for several topics below, especially on rebuilding after Hurricane Sandy


Recommended: Intergovernmental Panel on Climate Change, Report on Mitigation, 2014

Recommended: Thurman William Mathis, “Storm Warnings”, in Gotham Gazette, September 24, 2007, Courseworks

Week Five September 30 Public Policies, Institutions, Legislation, Politics: An Overview

Federal regulatory system for disaster response and recovery
Key Legislation,
Private Property and Government Regulation
Legal and financial issues
National Flood Insurance Programs

Readings:
Schwab, J, 2014, Chapters 3 and 4 and Chapter 8, pp.1-38


Week Six  October 7 Hazard Mitigation in New York: guest Speakers Heather Roiter Damiano, Director of Hazard Mitigation, NYC Office of Emergency Management and Carrie Grassi, Policy Advisor at Mayor’s Office of Recovery and Resilience


Week Seven, October 14  Identifying and measuring vulnerability: social, cultural, economic, psychological, spatial components

Class, race, ethnicity, age, gender, and vulnerability to disasters
Spatial vulnerability and planning
Community vulnerability assessments
Fear, terrorism and spatial vulnerability
Social and political equity issues

Readings
Phillips, B. pp.-56, pp.291-326
Savitch, H.V, pp.26-45

Sandy Regional Assembly Research Agenda, a gathering of environmental justice advocates; 2013, Courseworks

New York Academy of Medicine, Resilient Communities, Empowering Older Adults in Disasters and in Daily Life, July, 2014, Courseworks

Columbia University Planning Studio on Vulnerable Populations in Lower Manhattan After Hurricane Sandy, Fall 2013

Some essays on vulnerable populations in New Orleans, to be selected

Week Eight October 21 Emergency management and response
Visit to NYC Office of Emergency Management in Brooklyn

NYC OEM, nyc.gov, web site

Week Nine: October 28  Hurricane Sandy, 2012
Sandy and its Impacts

Readings: (many reports, we will sample)
SIRR Report, PlaNYC, nyc.gov
Good Jobs New York, Newsletters (published each week since about 2013, summary of responses, advocacy, programs, funding) goodjobsny.org/hurricane-sandy
NYU Furman Center Sandy’s Effects on Housing in New York City, 2013, furmancenter.org

No class meeting on November 4, Election Day (unless some want to meet)

**Week 11, November 11** Long Term Planning after Sandy for Resilience and Recovery

**Readings (many reports, we will sample)**

- SIRR Report, PlaNYC, nyc.gov
- ULI Report, After Sandy, October, 2013
- Citiwire report “Two Storms, Two Cities” Roberta Gratz, 1/17/2013, Courseworks

(Below is a reference list of reports)

- Designing For Flood Risk” by City Planning
- "Urban Waterfront Adaptive Strategies" by City Planning
- "New Flood Zones / Evacuation Zone Maps - FEMA / NYC-OEM
  - [https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1&userTyp](https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1&userTyp=G http://maps.nyc.gov/hurricane/)
- "Risk and Resiliency After Sandy “ NY Building Congress Report
  - [http://www.buildingcongress.com/research/sandy/01.html](http://www.buildingcongress.com/research/sandy/01.html)
- "Urban Green Council / USGBC Report to the Mayor" - UGC/NYC
  - [http://www.urbangreencouncil.org/BuildingResiliency](http://www.urbangreencouncil.org/BuildingResiliency)
- The NYC Planning Commission Report
- CDBG
- NYC: Department of Housing Preservation & Development (HPPD) Request for Qualifications
- CFA compiled resources Designing For Flood Risk” by City Planning
Week 12 November 18 Rebuild by Design
An unusual example of a design competition post-Sandy for long term mitigation post-Sandy, and sponsored by HUD.
Speaker will be Justine Shapiro-Kline and possibly some of the winning designers
Readings:
Topping, Kenneth, 2009, “Toward A New Era of Response: Smart Growth and Sustainable Community Design”, (PowerPoint, Courseworks)
Rebuild by Design, website

Week 13 November 25, Security, Human-Caused Disasters, Safe Streets and Neighborhood Character

Spatial design and surveillance,
Recovery and Rebuilding Lower Manhattan
Reading: Savitch, H.V, pp.123-170

Readings: (we will select from the following and from some current literature on rebuilding after 9/11) all on line

New York New Visions 2002(digital reprint and Courseworks)
Civic Alliance, 2003 Listening to the City (digital reprint and Courseworks)
Lower Manhattan Development Corporation and Port Authority of New York and New Jersey web sites (selections)
Selected current reports on progress and controversy at “Ground Zero” and in downtown Manhattan

Week 14, December 2 Pre-and Post disaster Planning and Community Participation
Readings:
Schwab, J. 2014, Chapters 5, 6, 7