

**PLAN 670**  
**Seminar in Disaster Management & Humanitarian Assistance**

Fall 2016  
Monday 6:00 – 8:30 PM  
Saunders Building, Room 713

Office Hours  
Thursday 2:30 pm- 4:30 pm or by Appointment

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**OVERVIEW**

The course provides an overview of disaster management and humanitarian assistance with a specific focus on risk reduction. It serves as the entry course for the Graduate Certificate in Disaster Management and Humanitarian Assistance. It provides background knowledge and skills for urban and regional planners and others who are increasingly concerned about the connections between environmental change, risk reduction, and resilience. The course considers the broad field of disaster studies as well as different phases of the disaster cycle. Invited international speakers will speak on topics including preparedness, response, recovery, mitigation and adaptation to hazards, threats, and environmental change. In addition to case studies, the course integrates training courses from the National Disaster Preparedness Training Center (ndptc.hawaii.edu). The course is a core requirement for the Graduate Certificate in Disaster Management and Humanitarian Assistance.

**LEARNING OBJECTIVES**

- Describe the foundations and evolution of disaster management
- Understand the concepts of risk, vulnerability, resilience
- Identify the objective and priorities in international and domestic disaster governance frameworks
- Understand the interdisciplinary nature of the field and identify the core capabilities, and roles and responsibility of stakeholders in whole community approach
- Identify the role of federal, state, and local government, international organizations and the community in emergency response and disaster preparedness

- Discuss the potential and challenges to applying innovative data and technologies in disaster management
- Integrate planning theories, methods, tools, and practices in disaster mitigation, recovery, and climate change adaptation
- Summarize measures for effective risk perception, risk communication, risk reduction, and risk sharing.
- Understand and apply the concept of urban resilience in disaster management

## **COURSE STRUCTURE**

The course is structured as a graduate level, international seminar. Disasters are teachable moments. They magnify underlying, structural, economic and social problems within communities. Disasters provide an opportunity to consider vulnerabilities as well as the exposures, sensitivities, and coping capabilities with harm causing events or processes. The course blends readings and classroom discussions with team and individual projects. Lessons from various disasters, proactive and reactive recovery cases will be discussed. Parts of the class will include lectures from international faculty and researchers who are part of the Asia-Pacific Initiative hosted and facilitated by the Telecommunications and Information Policy Group (TIPG). We will also include lectures and presentations from Hawaii-based researchers and professionals in the field of disaster management and humanitarian assistance.

There are no assigned textbooks. All required course readings will be available on the course website. Students are encouraged to take advantage of web-based and other electronic media on other aspects of disaster management.

## **COURSE REQUIREMENTS**

**Class Attendance:** As a member of this seminar, you will be expected to attend each class and to arrive on time and be well prepared. If you cannot attend class because of illness, an emergency, or another legitimate reason, please email the instructors ahead of time. Otherwise, excessive absences or disruptive behavior could result in a lower or failing grade, or possible expulsion.

**Participation:** Your participation in discussions, activities and small group work is critical to the success of the class. You are expected to participate in meaningful interactions and treat each other with courtesy and respect.

**Course Website:** The online portal would be an essential tool for you this semester. You will need to enroll and learn the basics – how to access course readings and documents, and how to post messages to the class discussion boards. We will use the Moodle Portal for sharing information.

## **GRADING POLICIES**

Your grade will be determined by:

- Assignment 1 What Went Wrong? – 15%
- Assignment 2 Book Review – 20%
- Assignment 3 Completion of 1 online courses – 20%

- Final Paper: Resilience Paper – 40%
- Class Participation – 5%

### **DISRUPTIVE BEHAVIOR AND HONOR POLICY**

Students engaging in disruptive behavior will be asked to leave the classroom. Use of cell phones and computers without permission of the instructor is considered disruptive behavior. Students in the Department of Urban and Regional Planning are expected to adhere to all University of academic honesty policies. Any incidence of cheating, copying, signing rosters for others, or other attempts to deceive will be penalized by lowered grades, course failure, and/or referral to the University Honor Court. Students are responsible for reading and abiding by the University's student code of conduct and academic honesty. [http://www.studentaffairs.manoa.hawaii.edu/policies/conduct\\_code/](http://www.studentaffairs.manoa.hawaii.edu/policies/conduct_code/)

### **DISCUSSION AND PARTICIPATION (5%)**

**You will sign up as discussion leaders at the beginning of the semester. You will lead the discussion on relevant topics.** You can bring in additional readings. Please send your discussion outline and additional material to the instructors at least one week before the class to be shared with the class in advance. You can add to the course portal in terms of finding links, articles, files and other contributions. You can participate in our international discussions. You think of interesting people to invite to class. You can share your ideas, energy, and discoveries with us. There are many ways to participate. You can help make this a lively, useful, and thought-provoking experience. You can help all of us to make the interesting connections between your backgrounds, experiences, and knowledge and the course themes.

### **ASSIGNMENTS**

*All the assignments should be submitted to Lualima website **before the beginning of the class on the due date.***

#### **Assignment #1 - What Went Wrong? (15%)**

Write a 3-4 page (double spaced) description of a disaster. Why does the particular event qualify as a disaster? What definitions of a disaster did you utilize in identifying this as a disaster? Who was affected and how where they affected? Identify the causes and consequences of the disaster. Identify the risk factors and generate a map of risk factor causal pathway. Make sure to include a bibliography of the sources you consulted. In addition, prepare a short 10 minute (3 slides) presentation to accompany your assignment.

**Due on September 12, 2016**

#### **Assignment #2 – Book Review (20%)**

Pick a recent book related to disaster management and/or humanitarian assistance. **Please notify the instructors of your chosen book by September 19th.** Write a 4-5 page (double spaced) review of the book. Share your review through group discussions in class. The first part of the review should succinctly describe the contents of the book. What is the main argument(s)? What data does the author(s) use to make the argument(s)? What methods do they rely on? The second part of the review should

critique the book. What's missing? How could the methods, data, or other aspects of the book be improved? The third part of the review should focus on the book's contributions to field of disaster management and humanitarian assistance. Describe how the information contained in the book is useful (or not) in terms of disaster preparedness, response, recovery or other aspects of the disaster cycle, or in the theory or practice of humanitarian assistance. Share and discuss your book review in class on Oct 17.

**Due on October 17, 2016**

**Assignment #3** – Completion of an online certificate program (20%)

Choose a self-study program of your interest relevant to disaster management from the following online certificate programs (minimum 2 hours). **Please notify the instructor your choice by October 31st.** It is strongly encouraged that you choose a program earlier in the semester. Share your learning and thoughts on the topic with the class through discussions. Pass the final exam and obtain a certificate by the end of the semester.

Online self-study certificate programs:

The Emergency Management Institute: <http://training.fema.gov/is/curriculum.aspx> .

The Columbia regional learning center: <http://ncdp.crlctraining.org/> .

The Building a Better Response project learning website:

<http://www.buildingabetterresponse.org/>.

**Certificate due via email to the instructor by November 14, 2016**

**Final Paper** Disaster Resilience Paper (30%)

Write a 8-10 page (double spaced) paper on urban resilience. The Rockefeller Foundations' 100 Resilient Cities program proposes that city resilience "Is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience." How do you think? Specifically, address the following questions.

- What does it mean to be a resilient city?
- What are the challenges AND the opportunities?
- How do we measure success?
- What are appropriate ways in which urban resilience programs and projects are taking shape?
- What are the lessons to be learned?
- How transferable are the findings to other places, cultures, and environments?
- What, if anything, could be done to improve in future?

You will be assessed on how you were able to integrate the course knowledge, tools, lectures, presentations, and readings with your particular academic interests relevant to disaster management and/or humanitarian assistance. Please closely review the course syllabus as well as other sources and relate the topic to the relevant course content. Prepare a 15 minutes presentation to accompany your paper. The presentation count for 5% of the final grade, and the paper will be account for 25% of the total grade.

**Due December 8, 2016**

## Course Schedule & Readings

### August 22 — Introduction and Overview of the Course

- What is this course about?
- How will the course be organized?
- What are your interests and backgrounds?
- What are expectations?
- What are the connections between planning and disaster management?
- Discuss grading and assignments

Mileti, D. (1999). Summary. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Joseph Henry Press. 1-15.

Kim, K. (2012) In a Crisis, Ask Us First. *Planning Magazine*. American Planning Association. August. P. 54. <http://the-commons.kettering.org/wp-content/uploads/bpfb/tmp/plannersasfirstresponderskim-3.pdf>

Erwann Michel-Kerjan (2015). *We must build resilience into our communities*. *Nature*. Vol. 524, page 389.

Burby, R. J., Beatley, T., Berke, P. R., Deyle, R. E., French, S. P., Godschalk, D. R., ... & Platt, R. H. (1999). Unleashing the power of planning to create disaster-resistant communities. *Journal of the American Planning Association*, 65(3), 247-258.

### August 29 —Risk and Vulnerability

Huppert, H. E., & Sparks, R. S. J. (2006). Extreme natural hazards: population growth, globalization and environmental change. *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences*, 364(1845), 1875-1888. <http://rsta.royalsocietypublishing.org/content/364/1845/1875>

Cardona, O. D. (2004). The need for rethinking the concepts of vulnerability and risk from a holistic perspective: a necessary review and criticism for effective risk management. *Mapping vulnerability: Disasters, development and people*, 1-17.

Birkmann, J. (2007). Risk and vulnerability indicators at different scales: applicability, usefulness and policy implications. *Environmental Hazards*, 7(1), 20-31.

Shen, S., Feng, X., & Peng, Z. R. (2016). A framework to analyze vulnerability of critical infrastructure to climate change: the case of a coastal community in Florida. *Natural Hazards*, 1-21.

### September 5 – NO CLASS (LABOR DAY)

- Time to organize for the rest of the term;
- Identify and propose your projects and papers:
- Work on the first assignment – What went wrong?

## **September 12 — What went wrong discussions**

Donohue, A. and R. V. Tuohy. *Lessons We don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them and How We Can Learn From Them*. Homeland Security Affairs. <https://www.hsaj.org/articles/167>

## **September 19 — Disaster Governance Frameworks**

Assembly, U. G. (2015). The Sendai Framework for Disaster Risk Reduction 2015–2030.

ISDR, U. (2005, March). Hyogo framework for action 2005-2015: building the resilience of nations and communities to disasters. In *Extract from the final report of the World Conference on Disaster Reduction (A/CONF. 206/6)* (Vol. 380).

Presidential Policy Directive-8 (2011). <https://www.fema.gov/learn-about-presidential-policy-directive-8>

Overview of the National Planning Frameworks (2016). Homeland Security.

National Preparedness System (2011). <https://www.fema.gov/national-preparedness-system#>

## **September 26 — Disaster Response: Collaboration and Leadership (Field Trip)**

Buck, D. A., Trainor, J. E., & Aguirre, B. E. (2006). A critical evaluation of the incident command system and NIMS. *Journal of Homeland Security and Emergency Management*, 3(3).

Jensen, J., & Waugh, W. L. (2014). The United States' Experience with the Incident Command System: What We Think We Know and What We Need to Know More About. *Journal of Contingencies and Crisis Management*, 22(1), 5-17.

Naim Kapucu Tolga Arslan Fatih Demiroz, (2010). Collaborative emergency management and national emergency management network. *Disaster Prevention and Management: An International Journal*, Vol. 19 Iss 4 pp. 452 - 468

Birkland, T. A., & DeYoung, S. E. (2011). Emergency response, doctrinal confusion, and federalism in the Deepwater Horizon oil spill. *Publius: The Journal of Federalism*, 41(3), 471-493.

### **October 3 — Disaster Preparedness**

Murray-Tuite, P., & Wolshon, B. (2013). Evacuation transportation modeling: An overview of research, development, and practice. *Transportation Research Part C: Emerging Technologies*, 27, 25-45.

Kim, K., Pant, P., & Yamashita, E. (2014). Evacuation planning for plausible worst case inundation scenarios in Honolulu, Hawaii. *Journal of emergency management (Weston, Mass.)*, 13(2), 93-108.

Yuzal, H., Kim, K., Pant, P., Yamashita, E., & street Mall, F. (2015). Tsunami Evacuation Buildings (TEBs) and Evacuation Planning in Banda Aceh, Indonesia. In *Transportation Research Board 94th Annual Meeting* (No. 15-4582).

Weller, S. C., Baer, R., & Prochaska, J. (2016). Should I Stay or Should I Go? Response to the Hurricane Ike Evacuation Order on the Texas Gulf Coast. *Natural Hazards Review*, 04016003.

Jeffrey Czajkowski, Ajita Atreya, Wouter Botzen, Gabriela Bustamante, Karen Campbell, Ben Collier, Alexandra Herrera, Francisco Ianni, Howard Kunreuther, Erwann Michel-Kerjan, Marilyn Montgomery, Luis Perez Garcia (2016). What Motivates Households in Vulnerable Communities to Take Flood Preparedness Actions? Zurich Flood Resilience Alliance. <http://opim.wharton.upenn.edu/risk/library/ZAlliance-what-motivates-households-IB-2016.pdf>

Prasad, S. (2016). Assessing the need for evacuation assistance in the 100 year floodplain of South Florida. *Applied Geography*, 67, 67-76.

### **October 10 — Risk Perception and Communication**

Wachinger, G., Renn, O., Begg, C., & Kuhlicke, C. (2013). The risk perception paradox—implications for governance and communication of natural hazards. *Risk analysis*, 33(6), 1049-1065.

Botzen, W. W., Kunreuther, H., & Michel-Kerjan, E. (2015). Divergence between individual perceptions and objective indicators of tail risks: Evidence from floodplain residents in New York City. *Judgment and Decision Making*, 10(4), 365. <http://opim.wharton.upenn.edu/risk/library/J2015JDM-Individual-Perceptions-of-Tail-Risks.pdf>

Erwann Michel-Kerjan, Wouter Botzen, Howard Kunreuther, Ajita Atreya, Karen Campbell, Ben Collier, Jeffrey Czajkowski, and Marilyn Montgomery (2015). Why many individuals still lack flood protection: new findings Zurich-Wharton issue brief [http://opim.wharton.upenn.edu/risk/library/ZAlliance-why-individuals-lack-flood-protection\\_IB2015.pdf](http://opim.wharton.upenn.edu/risk/library/ZAlliance-why-individuals-lack-flood-protection_IB2015.pdf)

Hughes, A. L., & Palen, L. (2012). The evolving role of the public information officer: An examination of social media in emergency management. *Journal of Homeland Security and Emergency Management*, 9(1), 1-20.

### **October 17 — Book Review (presentation and discussion in class)**

### **October 24 — Supporting Disaster Management using Data and Technologies**

Disaster-related Datasets and tools. <https://www.data.gov/disasters/>

Bernard Marr (2015). Big Data for Disaster Response: A List of Wrong Assumptions. *Forbes*.  
<https://irevolutions.org/2013/06/10/wrong-assumptions-big-data/>

Brian Forde (2013). What startups taught the white house during disaster. *Mashable*.  
<http://mashable.com/2013/05/05/brian-forde-sandy-technology/#rXQIsXmXhuqY>

Pu, C., & Kitsuregawa, M. (2013). Big data and disaster management: a report from the jst/nsf joint workshop. Georgia Institute of Technology, CERCS.

Kim, K., & Davidson, J. (2015). Unmanned Aircraft Systems Used for Disaster Management. *Transportation Research Record: Journal of the Transportation Research Board*, (2532), 83-90.

### **October 31 — Disaster Mitigation and Risk Reduction**

Salkin, P. E. (2005). Effective Disaster Mitigation Depends Upon Well-Coordinated Local Land Use Planning and Zoning. *34 Real Est. LJ 108*.

Nolon, J. R. (2005). Disaster Mitigation Through Land Use Strategies. *Pace Env'tl. L. Rev.*, 23, 959.

Regional Consultative Committee on Disaster Management (2011). Promoting Use of Disaster Risk Information in Land-use Planning. RCC Guideline 3.2. Section 2-4, pp. 8-25.

Pinter, N. (2005). One step forward, two steps back on US floodplains. *Science*, 308(5719), 207.

### **November 7 — Risk Sharing: Flood Insurance**

Kunreuther, H. C., & Michel-Kerjan, E. O. (2007). Climate change, insurability of large-scale disasters and the emerging liability challenge (No. w12821). National Bureau of Economic Research.



Kunreuther, H. (2016). Reducing Losses From Catastrophes: Role of Insurance and Other Policy Tools. *Environment: Science and Policy for Sustainable Development*, 58(1), 30-37.

Coglianesse, C., & Kunreuther, H. (2016). Insurance and the Excellent Regulator. [http://opim.wharton.upenn.edu/risk/library/WP201605\\_Insurance+ExcellentRegulator.pdf](http://opim.wharton.upenn.edu/risk/library/WP201605_Insurance+ExcellentRegulator.pdf)

## **Nov 14 — Recovery**

Homeland security (2016). National Disaster Recovery Framework, Second Edition. <https://www.fema.gov/media-library/assets/documents/117794>

Binder, S. B., Baker, C. K., & Barile, J. P. (2015). Rebuild or Relocate? Resilience and Postdisaster Decision-Making After Hurricane Sandy. *American journal of community psychology*, 56(1-2), 180-196.

Kim, K., & Olshansky, R. B. (2014). The Theory and Practice of Building Back Better. *Journal of the American Planning Association*, 80(4), 289-292.

Olshansky, R. B., & Johnson, L. A. (2014). The Evolution of the Federal Role in Supporting Community Recovery After US Disasters. *Journal of the American Planning Association*, 80(4), 293-304.

## **Nov 21 — Learning from Katrina**

Donald F. Kettl, Howard Kunreuther, and Ronald J. Daniels (2015) Six Lessons From Katrina Loom Even Larger 10 Years Later. *Government Executive*. August 2015. [http://opim.wharton.upenn.edu/risk/library/oped2015Aug\\_GovtExec\\_Six-Lessons-from-Katrina.pdf](http://opim.wharton.upenn.edu/risk/library/oped2015Aug_GovtExec_Six-Lessons-from-Katrina.pdf)

Wharton Risk Center and Zurich Insurance Group (2015) *Beyond Katrina: Lessons in creating resilient communities*. August 2015. [http://opim.wharton.upenn.edu/risk/library/whitepaper\\_beyond\\_katrina\\_2015.pdf](http://opim.wharton.upenn.edu/risk/library/whitepaper_beyond_katrina_2015.pdf)

Eisenman, D. P., Cordasco, K. M., Asch, S., Golden, J. F., & Glik, D. (2007). Disaster planning and risk communication with vulnerable communities: lessons from Hurricane Katrina. *American journal of public health*, 97(Supplement\_1), S109-S115.

Collins, R. A. (2011). No more “Planning by Surprise”: Post-Katrina Land-use Planning in New Orleans. *Resilience and Opportunity Lessons from the US Gulf Coast after Katrina and Rita*, Washington, DC: Brookings Institution, 99-119.

Explore the data and reports on the following website. What do you learn and what do you suggest for future development in New Orleans and other floodprone places? [http://www.datacenterresearch.org/reports\\_analysis/new-orleans-index-at-ten/](http://www.datacenterresearch.org/reports_analysis/new-orleans-index-at-ten/)

## **November 28— Climate Change Impacts and Urban Resilience**

Taşan-Kok, T., Stead, D., & Lu, P. (2013). Conceptual overview of resilience: History and context. In *Resilience Thinking in Urban Planning* (pp. 39-51). Springer Netherlands.

The national security implications of a changing climate (2015)

[https://www.whitehouse.gov/sites/default/files/docs/National\\_Security\\_Implications\\_of\\_Changing\\_Climate\\_Final\\_051915.pdf](https://www.whitehouse.gov/sites/default/files/docs/National_Security_Implications_of_Changing_Climate_Final_051915.pdf)

Wilbanks, T. J., & Kates, R. W. (2010). Beyond adapting to climate change: embedding adaptation in responses to multiple threats and stresses. *Annals of the Association of American Geographers*, 100(4), 719-728.

Wilby, R. L., & Keenan, R. (2012). Adapting to flood risk under climate change. *Progress in Physical Geography*

ARUP (2012). *City Resilience Index. Understanding and measuring city resilience.*

## **December 5— Final Presentation and Class Wrap Up**

**Syllabus is subject to change by Instructor.**

**It is likely that changes to the syllabus will be made over the course of the semester. It is the student's responsibility to confirm that the most recent version of the syllabus is being used.**