MANAGING THREATS, EMERGENCIES, AND DISASTERS

Emergencies and disasters create an extraordinarily difficult set of challenges for public managers. In disaster, public managers are legally responsible for the protection of life, property and continuity of operations in their respective communities. Yet, they are suddenly confronted with situations they have never encountered before. How do they assess the situation? What resources are available to them? How do they formulate a strategy of action to bring the situation under control? What information do citizens need to protect their own lives and property? How do they make informed decisions under the urgent stress of disaster, when lives and property are at risk? What is the most effective means of reducing the damage, destruction and disruption to lives and communities that unmitigated disasters bring? Do short term policy goals limit or facilitate long term strategies for disaster reduction in urban environments exposed to risk? As the population of the world increases, the incidence of disasters, both natural and man-made, also increases as people move into vulnerable coastal regions and amass in megacities.

The seriousness of the increasing vulnerability of the world to disasters cannot be underestimated. Kofi Annan, Secretary General of the United Nations, stated in his opening address to the 1999 General Assembly, that:

> War and natural disasters remain the major threats to the security of individuals and human communities. Our solemn duty to future generations is to reduce these threats. We know what needs to be done. What is now needed is the foresight and the political will to do it.¹

In this course, we will take up Mr. Annan’s challenge, cast more than a decade ago, but add to it a set of analytical and policy skills that can be used to frame the issues of risk so that other participants in local, national and international policy processes will understand the global need for disaster risk reduction, and act in constructive ways to fulfill it. First, we will review the scope of risk to human communities that is emerging on a global scale from natural and man-made disasters. As we reflect on the consequences of the January 12, 2010 Haiti Earthquake; the March 11, 2011 Earthquake, Tsunami, and Nuclear Reactor Breach in Northeast Japan, the continuing costs from October 29, 2012 Superstorm Sandy as it struck the coastal communities of New York and New Jersey, or the dramatic losses from the November 7, 2013 Typhoon

Haiyan that struck the Philippines, we will review the conditions and dynamics that contribute to disaster in metropolitan and rural regions around the world. Second, we will review the basic policies and practices that are currently in place for mitigation, response, and recovery from disaster, looking briefly at how these practices differ from local to state to national to international jurisdictions. Third, we will consider the process of decision making in emergent events, how and why it differs from routine management practices and what specific skills contribute to effective decision making in rapidly changing, urgent environments. Fourth, we will engage in a watch floor exercise, using the US matrix of Emergency Support Functions (ESFs) that will enable students to develop skills for monitoring risk in a given region. Practice in using this matrix will enable students to develop a comprehensive view of a community exposed to known risk, recognize the interdependencies among different emergency support functions, and design strategies for action that would engage the whole community in event of a sudden, damaging hazard. Fifth, we will study the links between the vulnerability of communities to disaster and the consequences of political and economic instability that lead to civil conflict, regrettably frequent in societies exposed to recurring risk. Finally, we will engage in a simulated decision making process that illustrates the conflicting interests among multiple policy audiences in recovery from a hypothetical earthquake disaster in Pacific Rim nations. The goal of the simulation will be to devise the most appropriate strategy, given conflicting interests and limited information, for citizens of a region coping with the consequences of a major disaster.

In addition to the readings, each student will be asked to select an actual disaster event, or a region exposed to severe risk that could lead to disaster, and analyze this case in terms of developing a constructive strategy for reducing risk to that community, given its actual resources and constraints. In order to enable students to gain practice in assessing the interdependent dynamics of disaster, we will form working groups for the selected cases by world regions: Asia, Africa, Latin America, North America, Europe and the Middle East. While our class discussions and exercises will use a range of recent deliberate, technological, and natural disasters, including the 29 October 2012 Hurricane Sandy, to illustrate the complex processes of communication, coordination and redesign of communities that are essential to reduce the risk of disaster, a key objective of the course is to enable students to develop mental models of strong, resilient, and adaptive communities that are capable of anticipating and managing the range of risks to which they are exposed. Such models enable students to understand the interactions among actors, technologies, and conditions that build resilience to disaster. The range of risks threatening communities includes earthquakes, tsunamis, severe wind or snow storms, fire, flooding, and technical failures.

Students may choose any hazard or disaster event in any country of the world for their analyses, but the analyses should consider the different phases of disaster management -- mitigation, preparedness, response and recovery – in developing their strategies for risk reduction for a specific community. The analyses should identify the major actors involved in both managing and contributing to the risk, their underlying assumptions and explicit behaviors, and design a strategy for constructive policy change. This strategy should include a plan for implementing the policy change in the selected environment and evaluating the performance of relevant actors in terms of achieving the goal of disaster reduction and community resilience. This analysis of an actual disaster event or risk environment will serve as the student’s term project. It will represent
the student's careful assessment of the conditions and policy requirements essential for reducing vulnerability to communities exposed to significant risk, and achieving a sustainable balance in managing its resources to reduce this risk. The analyses will be presented both orally in class and in written form as a final term project.

There will be a mid-term examination on the course readings to date. The final term paper will draw upon readings from the seminar as well as materials specific to the analysis of the selected disaster event. There will also be brief summaries from two watch floor exercises that will contribute to your final paper. The overall goal for the seminar is to enable students to imagine a strategy for global disaster reduction, and understand the components and skills that are essential to achieving this goal. Grades will be based upon the mid-term examination (35%), the written case analysis (35%), the written exercise assignments (15%); class participation and oral presentation of final analysis (15%). This course meets the requirements for the Latin American Studies certificate. Students taking the course for credit under the CLAS certificate should select an actual disaster event or disaster risk in Latin America for their analyses. For example, the 2010 Haiti and Chile Earthquakes, the 2011 floods in Colombia, or the 2012 Mexican Earthquakes proved severe tests of each nation’s capacity to cope with a known risk.

Reasonable proficiency in writing skills (grammar, spelling, use of paragraphs and punctuation) will be expected in written work, as well as proper documentation of sources and citation of references. Any inappropriate use of materials taken from other persons or sources without proper attribution will be treated in accordance with University policies for plagiarism or self plagiarism. My office is 3617 Wesley W. Posvar Hall; office hours are Monday, 2:00-3:00 p.m.; Tuesday, 3:00-4:00 p.m. and by appointment. My office telephone number is 648-7606; Sue Sawyers assists me with secretarial work.

If you have a disability that requires special testing accommodations or other classroom modifications, please notify both the instructor and the Disability Resources and Services http://www.pitt.edu/~osaweb/drs/drs.html no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, please call 648-7890 (Voice or TTD) to schedule an appointment. The Office is located in 216 William Pitt Union.

Required:


**Recommended:**


**Additional relevant readings:**


In addition, a number of other materials will be available on reserve in the GSPIA Library for students to use as resource materials for their term projects. These include:

Schedule of Readings and Course Assignments

I. Introduction to the Seminar


II. Disaster as a National and Global Policy Problem


Due: Selection of case for analysis of risk and development of strategy for disaster reduction. Formation of regional working groups for disaster risk assessment and analysis.

January 20: **MARTIN LUTHER KING, JR. HOLIDAY**


Due: Review of FEMA’s Emergency Support Functions. Introduction of the Watch Floor Exercise.

III. Designing Resilient Communities


Due: Brief reports from regional working groups on status of disaster risk; (Adaptation of Watch Floor exercise for global regions)

Preliminary list of information sources in reference to your case analysis


Due: Map of major actors, their assumptions about risk, and their relationships to one another in the existing environment of the case under study.

IV. Technological Disasters: Oil Spills, Transportation Accidents, Industrial Pollution

February 17: Cutter, Susan L. et al. *Hazards, Vulnerability, and Environmental Justice*

Update: Brief reports from regional working groups on status of risk, Watch Floor.

Mid-term essay questions distributed.

February 24: **Mid-Term Examinations Due**

Guest lecture: Dr. Suleyman Celik, Gazi University, Ankara, Turkey

Distribution of materials and selection of roles for RIMSIM simulation.
March 3: **Decision Processes in Disaster Environments**
* RIMSIM: A simulation of policy formation for reconstruction from disaster in a fictional hazard-prone environment.
* Research materials: UN International Strategy for Disaster Reduction Secretariat.

March 10: **SPRING BREAK!**

V. The Politics of Disaster

March 17: Sylves, Richard. *Disaster Policy and Politics*

**Due:** A preliminary set of assumptions regarding the critical factors leading to disaster in your selected case, and the evidence needed to support or reject these assumptions.

VI. The Aftermath of Disaster

* Update: Reports from working groups on the watch floor exercise, using Disaster Recovery functions.

March 31: Collins, Andrew. *Disaster and Development*
* Suleyman Celik, Gezi University, Ankara, Turkey, Guest Lecture.

**Due:** Preliminary outlines of case analyses.

VII. Building Resilience to Disaster

* Recommended: Dennis Miletii. *Disasters by Design.*

April 14: **Due:** Oral presentations of case analyses in class.

April 21: **Due:** Oral presentations of case analyses in class.
* Final written project papers.