Course Description:

A few years ago when I was talking to one of the NSF program officers who oversees social science research related to disasters, he declared, “the most studied aspect of disasters is evacuation.” When thinking about evacuation, which is one type of protective measure, many of us think of evacuations for events like hurricanes. While these types of events will be our primary focus this class will also look at acute emergency evacuations for events like building fires, sporting events and even airplane crashes.

To understand these types of protective measures, we must first understand risks, the role of risk perception and warnings. This course will start with an overview of risks, move to discuss risk perception, and then focus on how people respond to risks, their perceptions, and warnings. While this course will focus on evacuation, we will also discuss other actions people may take. While we assume those who don’t evacuate, don’t understand the danger, the work we do in this class will help you understand alternate approaches as well.

Ultimately, if it is true that warning and evacuation is one of the most researched areas in the disaster field, and one that we know the most about, how is it that still consistently struggle each event to evacuate people to safety?

Learning Objectives:

1. Students will demonstrate an understanding of the types of risks that may result in evacuation decision making.
2. Students will demonstrate the ability to compare and contrast various approaches to risk perception.
3. Students will demonstrate the ability to critically analyze the connection between risk perception, warnings and evacuation.
4. Students will demonstrate the ability to connect theory and practice through the development of research topics and literature reviews (master’s students) or research proposals and papers that utilize data (PhD students).
5. Students will demonstrate an understanding of how social factors such as race, class and gender impact risk perception and evacuation.
6. Students will explore the difference in evacuation for acute events such as fires and airplane crashes, and events with longer warning periods such as hurricanes.

Required Reading:

Weekly readings are available for download on CANVAS at https://unt.instructure.com/. All readings are outlined below by week, and organized similarly in the CANVAS course.

Course Requirements:

1. This course will be student driven. Students are expected to take an active role in shaping their learning environment both within and outside the classroom. This means that discussion and leadership by students is built into the course. I consider myself a guide for the course, whose job it is to provide you with the tools to learn. But I expect each of you to make your own way, and to work earnestly to develop your own thinking, language and framework as we investigate risk and evacuation.
To help guide each class and discussion, one of your requirements is to submit discussion questions before each class. These questions based on your readings and the weekly topic need to illustrate your understanding of the reading material and pose academically framed questions.

Each week is worth 5 points for a total of 60 points. Please email questions by 8am the morning of class.

2. During Week 12, we will have a Major Exam that will cover the material through Week 11. This exam will be an essay exam. The exam will be available for download on Canvas by 8am, Thursday April 11th. We will not have class on April 11th to give you time to work on your exam submissions. Exams should be turned in at the start of class on April 19th. No exams will be accepted after the start of class on Thursday April 19. More information will be given as we get closer to the exam. (100 points)

3. During week 5, February 14, we will have an in-class warning activity. Students in groups of 2-3, we work on a specific task related to warnings. In addition to the in-class work, you will write a 3-5 page reflection paper on the activity and warnings in general. (25 pts)

4. Major Paper
   a. MASTER’S Students:
      Literature Review Paper: Each Master’s Student will chose a topic to research during the semester. From your topic of interest, you need to develop a research question. The topic should be something of interest that is narrower than the topics we are covering during the week. For example, if you are interested in Race, your topic should narrow that down to a specific application of race related to warnings, risk or evacuation. Examples: Race and Evacuation Compliance; How Hispanics respond to warning messages; what sources of information do minority citizens use when evacuations are ordered? Master’s students are required to do a 15-20 page literature review on the topic. Paper format should be: Introduction where the topic of interest is outlined including the specific disaster event should you topic focus on one particular event; literature review using the upside down triangle approach where your review starts broadly, and then narrows to your specific area; and 3) conclusion that summarizes the literature and where there may be gaps that need to be filled by additional research. Your literature review should not merely outline the literature using summaries. The literature review should critically evaluate the literature you are citing emphasizing where the literature supports or contradicts itself. I’ll provide some guidance online for your literature review on CANVAS. (100 points)

      Paper topics are Due on February 28nd. Please turn in a 1-2 page description of topic. In this short submission, you should discuss your topic of interest, outline the 3-5 research areas you will need to explore to address your topic starting with the broadest and then the narrowest, and list at least two scholarly citations for each of these sections. You are expected to have more sources, but I’d like to see at least a start to make sure you are on track.

      Papers are due by 5pm May 9th. They may be sent via email or turned into the HPS Dean’s office, 209 Chilton Hall.

   b. PHD Students:
      Each PhD student will write either a paper for publication or a proposal. A paper for publication will require data and analysis. A proposal will require you to do everything, but the analysis. If you have a topic that you can find data to support, this would be a good opportunity to work on a publication. However, disaster research is unique, and data may not be readily available. The proposal allows you the option to plan a study. The topic should be something of interest that is narrower than the topics we are covering during the week. See Examples above in Master’s discussion
Please see the end of the syllabus for paper requirements. (Paper worth 125 points)

5. **Presentation**: Each student will present their research during the last week of the semester in similar ways that papers are presented at conferences including question and answer periods. (40 points)

6. **Attendance and Class Participation**: Needless to say attendance is required. I shouldn’t need to say that to a graduate course, but putting it in writing allows for no miscommunications. Students are expected to participate fully in all class discussions. This class will not work if I am the only one talking. Learning is done by all of us, and each of your viewpoints is valuable. 50 points.

7. **PHD STUDENTS ONLY**: For the April 26th Class session, you will be leading the class and discussion. You will need to pick a topic not covered in the syllabus, determine the readings (2), and run the class and discussion. Please submit your topic and readings to me by March 28th. (30 points)

Points Possible:

**Master’s Students:**

- Weekly Reading Questions: 60 points
- Warning Exercise Reaction Paper: 25 points
- Major Exam: 100 points
- Paper: 100 points
- Presentation: 40 points
- Attendance and Class Participation: 50 points

**Total:** 375 Points

**Grade Distribution (Master’s Students Only):** I do not anticipate needing this complete distribution as graduate students should receive A’s and Bs in this class. But the full distribution is below so everyone is on the same page.

- Over 337 Points: A
- 300 – 337 Points: B
- 262 – 300 Points: C
- 225 - 262 Points: D
- Under 225 Points: F

**PhD Students**

- Weekly Reading Questions: 60 points
- Warning Exercise Reaction Paper: 25 points
- Major Exam: 100 points
- Paper: 125 points
- Presentation: 40 points
- Attendance and Class Participation: 50 points
- Topic Lead: 30 points

**Total:** 430 Points
Grade Distribution (PhD Students Only): I do not anticipate needing this complete distribution as graduate students should receive A’s and Bs in this class. But the full distribution is below so everyone is on the same page.

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<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
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<tr>
<td>Over 387 Points</td>
<td>A</td>
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<td>344 – 387 Points</td>
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<td>301 – 344 Points</td>
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<td>258 - 301 Points</td>
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<td>Under 258 Points</td>
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Schedule of Topics and Readings

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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment/Notes</th>
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<tbody>
<tr>
<td>1</td>
<td>January 17</td>
<td>Introduction to Course and Topics</td>
<td>None</td>
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<td>2</td>
<td>January 24</td>
<td>RISKS</td>
<td>Reading 1: “Disaster Types”</td>
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<td>Reading 2: “Disasters: Lessons learned for the past 105 years”</td>
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<td>Reading 3: “Overview on Disasters”</td>
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<td>January 31</td>
<td>Warnings 1</td>
<td>Reading 4: “Hazard Warning Systems: Review of 20 years of progress”</td>
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<td>Reading 5: “Community Process: Warning and evacuation”</td>
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<td>Reading 6: “Tourists and disasters: lessons from the 26 December 2004 Tsunamis”</td>
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<td>4</td>
<td>February 7</td>
<td>Warnings 2</td>
<td>Reading 7: “Is a Picture Worth a Thousand Words”</td>
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<td>Reading 8 “ Warning the world of extreme events”</td>
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<td>Reading 9: “Disaster Warning Response: the effects of different types of personal experience”</td>
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<td>Reading 10: “Crisis Communication, Race and Natural Disasters”</td>
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<td>5</td>
<td>February 14</td>
<td>In Class Warning Activity</td>
<td>In Class Warning Activity</td>
<td>Warning Activity Reflection Due</td>
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<td>6</td>
<td>February 21</td>
<td>Risk Perception 1</td>
<td>Reading 11: Social Amplification of Risk</td>
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<td>Reading 12: “Toward a Critical Sociology of Risk”</td>
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<td>Reading 13: “Perception of Risk”</td>
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<td>Reading 14: “Why Study Risk Perception”</td>
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<td>7</td>
<td>February 28</td>
<td>Risk Perception 2</td>
<td>Reading 15: “Tornado Warning Perception and Response: Integrating the roles of visual design, demographics and hazard experience”</td>
<td>Paper Topics Due.</td>
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<td>Reading 16: “Perception of Earthquake Risk in Taiwan: Effects of Gender and Past Earthquake Experience”</td>
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<td>Reading 17: Hurricane Risk Perceptions among Florida’s Single Family Homeowners</td>
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<td>March 7</td>
<td>Reading 18: “Perception of Hazards: Role of Social Trust and Knowledge”</td>
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| March 21 | Reading 19: “Hurricane Evacuation Behavior”  
Reading 20: “Social processes in Disaster: Family Evacuation”  
Reading 21: “Warning and evacuation: answering some basic questions” |                                          |
| March 28 | Reading 22: “Modeling Hurricane Evacuation Decisions with Ethnographic Methods”  
Reading 23: “Household Decision Making and Evacuation in Response to Hurricane Lili”  
Reading 24: “Behavioral Model to Understand Household Level Hurricane Evacuation Decision Making” |                                          |
| March 28 | Reading 25: “Gender and Evacuation: A Closer Look at why women are more likely to evacuate for hurricanes”  
Reading 26: “Predicting Evacuation in Two Major Disasters: Risk Perception, Social Influence and Access to Resources”  
Reading 27: “Race, Class and Hurricane Katrina” |                                          |
| April 4 | Reading 28: “Normative Collective Behavior in the Station Building Fire”  
Reading 29: “Psychological Analysis of the evacuation Behavior at the Great Sakata Fire”  
Reading 30: Bonded Fatalities: “Relational and Ecological Dimension of a Fire Evacuation” |                                          |
| April 11 | Major Exam                                                                 | Exam posted on CANVAS by 8am  
No Class. Exam to be turned in on 4/19 in class. No late exams. |
| April 19 | Reading 31: “Evacuation Behavior at Three Mile Island”  
Reading 32: “The Waterborne Evacuation of Lower Manhattan on September 11: A Case of Distributed Sensemaking”  
Reading 33: Human Behavior in the World Trade Center Evacuation  
Reading 34: Football Stadia disaster in the United Kingdom: Learning from Tragedy? | EXAM DUE |
| April 26 | To be Determined                                                                 | PhD Student Determined and Led              |
| May 3   | PRESENTATIONS                                                               |                                          |
| May 9   | Final Exams                                                                 | NO CLASS  
Final Papers due by 5pm |
PhD Paper Requirements:

Proposal Abstract: Maximum 100 words, including a succinct statement of the problem, the main independent and dependent variables you will use, a clearly-stated research hypothesis, and a brief description of your methodology, including type of design and sample.

Introduction – set up your research; briefly outline what you did and what you found.

Problem Statement, Research Question, and Significance

- Problem Statement and Research Question. Briefly describe the problem. Describe the purpose of your research and conclude with a clearly-stated research question.
- Significance. This section provides the rationale and justification for the research or why you think the topic is important.
- For example: Who cares about the answer? Why is it significant? Is present opinion divided? How important is it to have an answer to this question? What are the implications for practice/policy of various possible answers?

Literature Review

Review of Relevant Literature. This review provides background information about your topic – it summarizes what is known about the subject, and critically analyzes prior research on the topic. This review lets the reader know that you understand the problem and provides a context for your proposed research. Make use of at least ten theoretical/empirical articles in writing your literature review. Be sure to include studies that deal with the major concepts/variables that you will include in your research. If you cannot find literature that is directly related, make indirect links through literature that seems related, but may not be precisely on your topic.

Hypotheses. State the key hypotheses to be tested, indicating independent, dependent, and any control variables. This section should end your lit review and transition into your methods section. If you plan to use qualitative methods, this section should NOT include specific hypotheses. Instead, it should state your research question, and what you’re exploring in your qualitative method.

Methodology

Research Design. Describe your research design and data collection methods, and indicate how it will be implemented or administered in your specific project. If you are using secondary data, what dataset?

Sample. Specify your sample in terms of how it will be selected (whether random or not); the type of nonprobability or probability sample you are going to use (simple random, stratified random, etc.); what your sampling frame is, if you have one; the criteria for inclusion/exclusion; and the size of the sample. Justify each of these decisions.

Conceptualization and Operationalization: Specify key concepts on which your study will focus and how you intend to operationalize them as variables. List variables and how they will be measured. Discuss issues of reliability and validity of measurement of key variables.

Analysis: What type of analysis will you use? What type of statistics or qualitative tools?

Other Methodological Issues. Indicate any additional concerns you have regarding methodological issues in your study, such as your response rate, sampling bias, respondent bias, dependent variables, and potential administrative problems.

Findings (NOT required if doing a proposal) If you are actually going to produce a potentially publishable paper, you will need a Findings Section that reports the results of your data Analysis.

Discussion (NOT required if doing a proposal): The discussion should tie your findings back to your research questions and literature review. You should only discuss things that you presented in your findings or literature review.
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