GEO 2006: Natural Hazards Geography

Department of Geography

College of Liberal Arts & Sciences

Tuesday 3:00 pm – 4:55 pm, Thursday 3:00 pm – 3:50 pm at TUR 3012

Instructor: Gabrielle P. Quadrado

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Office Hours: Wednesday 3:00 pm – 5:00 pm, Thursday 2:00 pm – 3:00 pm
or by appointment – TUR B219 (basement)

Course Description: In this course, students will gain an international perspective on the societal and environmental impacts of natural hazards. The overall goal of this class is to equip students to contribute to effective policies and decision-making to aid individuals, communities, and even national governments to reduce the impacts associated with hazards and disasters. This course integrates perspectives from **geography, atmospheric sciences, oceanography**, and **social sciences** to assess how disasters emerge from a complex interaction of social, psychological, cultural, political, and economic forces with extreme meteorological, climatological, and geophysical phenomena. Comparative geographic and historical analyses will be used to explain why, despite investments in preparedness, response, mitigation, and recovery, global impacts associated with natural hazards continue to rise.

Credit Hours: 3

Course Objectives:

At the completion of this course, students will be able to:

- Explain the driving processes and outline the impacts of natural hazards from a physical perspective
- Summarize the spatial and temporal characteristics of natural hazards at a global scale
- Understand the emergency management spiral, a multiphase and cyclical framework that supports communities to prepare for, respond to, mitigate and recover from a disaster
- Discuss and explain why natural hazards and disasters occur in terms of risk, vulnerability, and resilience, and how individual and institutional perceptions play key roles in policy initiatives to reduce hazard impacts

- Describe and distinguish the spatial variability of societal impacts from hazards and disasters in the past/present across the globe, and be able to identify what the future global trends are
- Analyze historical global data and case studies to discern instances in which risk reduction policies have effectively addressed hazard-related problems from those which have been ineffective
- Evaluate and discuss recent and ongoing hazard events with an emphasis on how negative consequences emerge and propagate through interconnected national and international economic and political systems
- Analyze ethical considerations and competing goals/values inherent in disaster management decisions in local, national, and international contexts

Required Textbook:

Natural Hazards: Explanation and Integration, 2nd Edition, 2017, by Montz, Tobin, & Hagelman; ISBN: 9781462529186, Publisher: Guilford.

- Some suggestions about where the book can be purchased are: Amazon, Guilford Press, and the UF Bookstore
- You can use an eTextbook or a hardcover/paperback version of the book. It is your choice.

Course Format

During class meetings (in-person), the instructor will introduce and discuss key concepts and work through some examples with the students. Outside the classroom, students are expected to work through the modules via UF Canvas, where all the lectures, supporting material, and online activities will be published with their corresponding schedule/deadline (please, see the late policy below).

Online activities will include:

- module quizzes (an overview of the concepts at the end of each module)
- bi-weekly recent hazard event summary and discussion*
- four take-home assignments
- final exam

Frequency may change depending on other scheduled activities to avoid an overload of assignments.

In-class activities will consist of:

- small problem sets in which you will work in small groups
- oral questions - not every lecture; this will be in the form of questions to be answered orally, aiming to engage students with the content and promote in-class discussions; this will count towards your participation grade
- one in-class debate
- midterm exam

Late Policy

All assignments submitted after their respective deadlines are subject to a penalty. Late assignments will be evaluated with a lower rate of **-10% per day** late. If you feel you may have difficulty meeting a deadline, please contact your instructor as soon as possible.

⚠️ As Canvas is an extension of the classroom content, you are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning.

Evaluation and Grading Policy

Final grades will be determined by computing final scores of all grading categories: quizzes, event summaries & discussions, assignments, exams (midterm and final), and participation.

The *participation* grade will consist of attendance in class, willingness to participate in in-class discussions (including the instructor or during small group activities), attempt to answer questions posed by the instructor, and engagement in promoting a friendly learning environment.

The grade calculation with the corresponding contribution to the final grade is:

Category	Percentage of Final Grade
Assignments	30%
Event Summaries & Discussions	25%
Exams (Midterm & Final)	20%
Quizzes	15%
Participation	10%

The final letter grade scale will be according to:

Grading Scale	Grade*	Points
>93	A	4.00
90 – 92	A-	3.67
87 – 89	B+	3.33
83 – 86	B	3.00
80 – 82	B-	2.67
77 – 79	C+	2.33
73 – 76	C	2.00
70 – 72	C-	1.67
67 – 69	D+	1.33
63 – 66	D	1.00
60 – 62	D-	0.67
< 60	E	0.00
*A minimum grade of C is required for general education credit.		

Important Dates

Drop/Add Period End	Tue, Aug 30th 2022
Labor Day	Mon, Sep 5th 2022
Homecoming	Fri, Oct 7th 2022
Veterans Day	Fri, Nov 11th 2022
Midterm Exam	Tue, Oct 18th 2022
Thanksgiving	Wed – Sat, Nov 23rd – 26th 2022
Reading Days	Thu – Fri, Dec 8th – 9th 2022
Final Exam	**TBD**

Weekly Schedule – topics and activities

The schedule below is tentative and subject to change at the discretion of the instructor.

Week	Modules	Class Topics	Assigned Activity	Required Readings
1	0	Course Orientation & Introduction	-	Syllabus
2	1	Definitions & Components of Natural Hazards Research	• Assignment #1: *Mapping the World Risk Index* • Quiz Module 1	Chapter 1
3	2	Physical Dimensions of Natural Hazards: Hydrometeorological & Climatological Events	• Recent Hazard Events Summary #1	Chapter 2
4	2	Physical Dimensions of Natural Hazards: Hydrometeorological & Climatological Events	• Assignment #2: *Coastal Development and Changes in Hurricane Hazards*	Chapter 2
5	2	Physical Dimensions of Natural Hazards: Geophysical Events	• In-class activity: *Earthquakes* • Quiz Module 2	Chapter 2
6	3	Spatial & Temporal Characteristics of Natural Hazards	• Recent Hazard Events Summary #2 • Quiz Module 3	Chapter 3
7	4	The Individual in Natural Hazards	• Quiz Module 4	Chapter 4
8	Exam	**Midterm Exam – Tuesday, Oct 18th**	None	Study Guide
9	5	Community Behaviors & Attitudes Toward Hazard Adjustments	• Recent Hazard Events Summary #3 • Quiz Module 5	Chapter 5
10	6	Public Policy & Natural Hazards: Disaster Relief & Recovery	• Assignment #3: *International Disaster Aid*	Chapter 6
11	6	Public Policy & Natural Hazards: Mitigation & Preparedness	• Recent Hazard Events Summary #4 • Quiz Module 6	Chapter 6
12	7	Evacuation & Impacts of Hazards & Disasters	• Assignment #4 *Hurricane Evacuation*	Chapter 7
13	-	*Hurricane Evacuation*	• In-class debate • Quiz Module 7	Prepare for debate
14	8	Risk Assessment & Vulnerability	• Quiz Module 8	Chapter 8
15	Exam	**Online Final Exam, TBD**	None	Study Guide