GEO 2006: Natural Hazards Geography

Department of Geography

College of Liberal Arts & Sciences, University of Florida

COURSE SYLLABUS

Instructor:	Dr. Kevin Ash	Term:	Fall 2025
Office:	TUR 3128 (Office visits via Zoom)	Class Meeting Days:	Online asynchronous
Phone:	352-294-6956	Class Meeting Hours:	Online asynchronous
Email:	kash78@ufl.edu	Class Location:	UF Canvas
Office Hours:	Mon & Fri, 10:30 am-12 pm ET, or by appt	Course Credits:	3 hours

I. Course Overview

In this course, students will gain an international perspective on the societal and environmental impacts of natural hazards with the goal of equipping 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 and cognate social sciences to enhance understanding of 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 warning systems, preparedness and mitigation projects, and emergency response & recovery initiatives, global losses associated with natural hazards have thus far continued to rise.

II. General Education Objectives

This course is both a social and behavioral sciences (S) and international (N) subject area course in the UF General Education Program. A minimum grade of C is required for General Education credit.

Social Science courses must afford students an understanding of the basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and economic issues. Social and Behavioral Sciences is a sub-designation of Social Sciences at the University of Florida.

Social and behavioral sciences courses provide instruction in the history, key themes, principles, terminology, and underlying theory or methodologies used in the social and behavioral sciences. Students will learn to identify, describe, and explain social institutions, structures, or processes. These courses emphasize the effective application of accepted problem-solving techniques. Students will apply formal and informal qualitative or quantitative analysis to examine the processes and means by which individuals make personal and group decisions. Students are expected to assess and analyze ethical perspectives in individual and societal decisions.

The International designation is always in conjunction with another program area. Courses with International should demonstrate that a majority of the course addresses international content and engagement and it should be a substantial, defining feature of the course.

International courses promote the development of students' global and intercultural awareness. Students examine the cultural, economic, geographic, historical, political, and/or social experiences and processes that characterize the contemporary world, and thereby comprehend the trends, challenges, and opportunities that affect communities around the world. Students analyze and reflect on the ways in which cultural, economic, political, and/or social systems and beliefs mediate their own and other people's understanding of an increasingly connected world.

In pursuit of the general education requirements, course learning objectives include:

1. Explain why disasters occur in terms of risk, vulnerability, and resilience, and how individual and institutional perceptions play key roles in policy initiatives intended to reduce hazard impacts
2. Describe world regions that suffered particularly severe societal impacts from hazards and disasters in the past and/or are likely to be severely impacted in the future
3. 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
4. Evaluate recent and ongoing hazard events to understand how negative consequences emerge and propagate through interconnected national and international economic and political systems
5. Analyze ethical considerations and competing goals/values inherent in disaster management decisions in local, national, and international contexts

III. Student Learning Outcomes

At the end of this course, students will be expected to achieve the following learning outcomes in content, communication, and critical thinking:

- **Content**: *Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the subject area.* Students will acquire basic knowledge of how hazards and disasters are conceptualized and managed from a social scientific perspective. Students will also enhance their understanding of global geographic variability of disaster risk reduction capabilities and the societal impacts associated with hazard events and disasters. Achievement of this learning outcome will be assessed through reading quizzes, five written summaries and related peer review activities about recent notable hazard events, four of the five assignments, and a midterm and final assessment.
- **Communication**: *Students clearly and effectively communicate knowledge, ideas, and reasoning in written or oral forms appropriate to the subject area.* Students will individually prepare brief written summaries and then participate in peer review activities for five course modules. The written summaries and review participation will be assessed according to the rubric provided on Canvas. Students must communicate their ideas and reasoning about causal factors and potential actions to lessen impacts for recent and ongoing hazard events; then, students will read & provide constructive feedback for other students' summaries. Additionally, students will practice effective written communication as part of all five assignments which will require students to write several paragraphs to answer one or more short answer or essay questions. Achievement of this learning outcome will be assessed through five written summaries and related peer reviews about recent notable hazard events, as well as five written assignments.
- **Critical Thinking**: *Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the subject area*. Students will analyze data and information and will be asked to reason with course content and empirical data in the assignments to develop potential solutions for individuals and institutions to reduce disastrous hazard impacts on society. In addition, event summaries and peer review activities will require students to engage with ongoing debates about potential solutions to reduce short- and long-term health and economic impacts stemming from recent and ongoing hazard events drawn from international examples. Achievement of this learning outcome will be assessed through five written summaries and related peer reviews about recent notable hazard events, as well as all five assignments.

IV. Materials and Supplies: Desktop or Laptop Computer

This course will be conducted via UF Canvas. Students must provide their own computer on which to work on quizzes, assignments, and exams during the semester. Any required software (such as Microsoft Excel) will be available to students through UF Apps at https://info.apps.ufl.edu or will be freely available for download (open source).

V. Minimum Technology Requirements

The University of Florida expects students entering an online program to acquire computer hardware and software appropriate to his or her degree program. Most computers are capable of meeting the following general requirements. A student's computer configuration should include:

- Webcam

- Microphone
- Broadband connection to the Internet and related equipment (Cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review prior to the start of their program.

VI. Minimum Technical Skills

To complete your tasks in this course, you will need a basic understanding of how to operate a computer, and how to use word processing software.

VII. Materials/Supply Fees

There is no supply fee for this course.

VIII. Course Format, Activities, and Basis for Evaluation

The class will be conducted online via UF Canvas and in an asynchronous format, meaning that students should work through the modules themselves throughout the semester, paying close attention to the schedule and deadlines. All lectures will be available for viewing via UF Canvas, and students will be able also to download the Powerpoint files and a transcription of each lecture. There will be assignments and/or discussions each module during the semester, and there will also be short lecture quizzes taken via Canvas which must be finished by the end of the week corresponding to the module in which they are assigned. There will be two exams, a midterm and a final exam, both administered via UF Canvas.

Evaluation and Grading: A minimum grade of C is required for General Education credit.

- **Event Summaries and Discussion:** 30% of the final grade will consist of written summaries & online discussion of hazard/disaster events during the five modules in which students participate in these exercises. Students are expected to write brief summaries on recent events including information describing key geographic event attributes; preparedness and warning systems; relevant social, cultural, economic, & political vulnerabilities; losses and impacts; and post-event response activities. Students will also read and reply to two other summaries written by peers in the class.

Rubric for Evaluation: Written Hazard Event Summaries & Group Activity

(Adapted from two sources: Solan & Linardopoulos 2011, http://jolt.merlot.org/vol7no4/linardopoulos_1211.htm; Reflection/Discussion Critique Rubric, http://www.rcampus.com/rubricshowc.cfm?sp=yes&code=D97AAC&.

Evaluation Category	Standards for Excellent Work	Points	Instructor Comments
Provide Basic Event Facts	-Describe geographic locations -Give dates/times of events -Describe hazard event types -Include maps as appropriate	/5	
Physical Dimensions of Hazard Events	-Describe events in terms of magnitude/intensity, spatial distribution, areal extent, rate of onset, seasonality, etc. -Discuss briefly local climate and/or topography of event locations, if relevant	/10	
Societal Vulnerability, Resilience, and Impacts	-Describe the direct & indirect impacts of the	/10	

	disaster (based on tentative available information) -Discuss key features of the exposed & affected area's people & systems, such as population size, prominent livelihoods, and demographics. -What was the role of any forecasts or warnings in moderating impacts?		
Writing & Communication Proficiency	-Organize writing with clear structure: ▪ Introduction ▪ Body ▪ Conclusion -Avoid spelling, grammar, syntax, punctuation, or other writing errors	/5	
Group Discussion Participation	-Comment on the post of at least two group members with substantive feedback and/or insight -Engage in constructive debate, when appropriate -Ask questions if you do not understand content or terms	/20	

- **Lecture Quizzes:** Students are required to complete a quiz for each module time period that corresponds to the lectures. To make sure that students keep up with the lectures, these quizzes must be completed on a regular basis. The quizzes will be administered via UF Canvas and will consist of multiple-choice questions. The quizzes comprise 20% of the total credit for the course.

- **Assignments:** Students will complete six assignments during this course, which in total will comprise 30% of the final grade. These assignments will correspond to the topics of the reading and lectures roughly every two weeks. The assignments will require students to analyze and interpret data using Microsoft Excel and mapping software, evaluate a social scientific approach to understanding individual decision-making for hurricane evacuation, and write a review of international hazard reduction policy initiatives. The assignments must be completed individually by each student.

- **Exams:** In total, the two exams will account for 20% of the final grade, 10% each for the Midterm and Final exams. The exams will be closed book and will consist of multiple-choice questions.

Assignments and Exams	**Percent of Final Grade**
Hazard Event Summaries & Discussions	30%
Assignments	30%
Lecture Quizzes	20%
Exam #1: Midterm	10%
Exam #2: Final (not cumulative)	10%

Grading Scale (%)	
92.5 – 100	A
89.5 – 92.4	A-
86.5 – 89.4	B+
82.5 – 86.4	B
79.5 – 82.4	B-
76.5 – 79.4	C+
72.5 – 76.4	C
69.5 – 72.5	C-
66.5 – 69.4	D+
62.5 – 66.4	D
59.5 – 62.4	D-
< 59.5	E

IX. **Important Dates to Remember:** The due dates below are tentative and can be changed at the discretion of the instructor.

Course Begins (Week 1)	Thurs, Aug 21st, 2025
Drop/Add Ends:	Fri, Aug 29th, 2025
Labor Day Holiday	Mon, Sep 1st, 2025
Midterm Exam	**Thurs, Oct 16th, 2025**
UF Homecoming Break	Fri, Oct 17th, 2025
Veterans Day Holiday	Tues, Nov 11th, 2025
Thanksgiving Break	Mon-Fri, Nov 24–28th, 2025
Reading Days	Thurs-Fri, Dec 4–5th, 2025
Final Exam	**Wed, Dec 10th, 2025**
Fall 2025 Grades Visible on https://one.uf.edu/dashboard/	Wed, Dec 17th, 2025

X. Weekly Topic Schedule, Assignments, and Exams (Schedule is provisional and subject to change)

Dates	Modules	Class Topics	Assessments
Week 1	0-1	Course Orientation & Introduction	Introduce Yourself & Course Orientation Quiz
		Hazards in the Environment	
Week 2	2	Geographic Distribution of Natural Hazards	Assignment #1: Mapping International Disaster Casualties
Week 3	3	Temporal Characteristics of Natural Hazards	Hazard Event Summary #1
Week 4	4	Impacts of Natural Hazards	Assignment #2: Mapping International Disaster Damages
Week 5	5	Historical Background and Vulnerability Theory	Hazard Event Summary #2
Week 6	6	Resilience, Self-Efficacy, and Cultural Factors	Assignment #3: Mapping the World Risk Index
Week 7	7	Risk Perception, Uncertainty, & Decision-Making	Hazard Event Summary #3
Week 8	8	Risk Assessment & Management	No assignment, study for Midterm Exam
Week 9	9	Risk Communication	**Midterm Exam**
Week 10	10	Managing Disasters: Mitigation	Hazard Event Summary #4
Week 11	11	Managing Disasters: Preparedness	Assignment #4: Reflection on Sendai Framework

Week 12	12	Managing Disasters: Evacuation and Response	Assignment #5: Evacuation Decision Factors and Coping Capacity
Week 13	13	Managing Disasters: Recovery	Hazard Event Summary #5
Week 14	14	Managing Disasters: Aid & Relief	Assignment #6: International Disaster Aid
THANKSGIVING BREAK WEEK			
Week 15	15	Integrated Approach to Natural Hazards	No assignment, prepare for Final Exam
Exam Week	Exam Week	**Final Exam (Dec 10th)**	

XI. Academic Policies:

This course complies with all UF academic policies. For detailed information on those policies and to find additional resources for students, please go to https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/.