

GEO 2006: Natural Hazards Geography

Department of Geography
College of Liberal Arts & Sciences, University of Florida

COURSE SYLLABUS

Instructor: Dr. Kevin Ash Term: Fall 2023 Office: TUR 3128 (Office visits via Zoom or in office) 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 & Wed, 3-4 pm ET, or by appointment 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.

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, and 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.

International courses equip students to identify, describe, and explain the historical, cultural, economic, political, and/or social experiences and processes that characterize the contemporary world. Students will exercise critical thinking to analyze and reflect on the ways in which cultural, economic, political, and/or social systems and beliefs mediate understandings of an increasingly connected contemporary world.

These general education objectives will be accomplished through:

- Discussion and explanation of 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
- Description and explanation of world regions that suffered particularly severe societal impacts from hazards and disasters in the past and/or are likely to be severe impacted in the future
- Analysis of 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

- Evaluation and discussion of recent and ongoing hazard events to understand how negative consequences emerge and propagate through interconnected national and international economic and political systems
- Analysis and critique of 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: Laptop Computer

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

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. Required Texts and Useful Online Resources

The required text for this course is *Natural Hazards: Explanation and Integration* by Montz, Tobin, & Hagelman, published in 2017 (2nd Edition). The required text may be purchased via the links provided below. Any additional reading materials will be available via UF Canvas. A digital version of the textbook will suffice if students prefer that to a hard copy.

https://www.guilford.com/books/Natural-Hazards/Montz-Tobin-Hagelman/9781462529179 https://www.amazon.com/Natural-Hazards-Second-Explanation-Integration/dp/1462529178

IX. 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 reading 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 review 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 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	

- Reading Quizzes: Students are required to read portions from the textbook for each module time period that roughly corresponds to the lectures. To make sure that students keep up with the reading, there will be quizzes that must be completed on a regular basis. These quizzes will be administered via UF Canvas and will consist of multiple choice and short answer questions. The quizzes comprise 20% of the total credit for the course.
- Assignments: Students will complete five 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
Reading Quizzes	20%
Event Summaries & Discussion	30%
Assignments	30%
Exam #1: Midterm	10%
Exam #2: Final (not cumulative)	10%

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

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

Drop/Add Ends: Labor Day

Fall Break-Homecoming

Midterm Exam
Veterans Day
Thanksgiving Break
Reading Days
Final Exam

Fall 2023 Grades Visible on https://one.uf.edu/dashboard/

Tues, Aug 29th 2023 Mon, Sep 4th 2023 Fri, Oct 6th 2023 **Thurs, Oct 19th 2023** Fri, Nov 10th 2023 Wed-Fri, Nov 22-24th 2023 Thurs-Fri, Dec 7-8th 2023 **Thurs, Dec 14th 2023**

Wed, Dec 20th 2023

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

Dates	Modules	Class Topics	Assessments	Required Readings
Aug 23-25	0-1	Course Orientation & Introduction	Introduce Yourself & Course Orientation Quiz	Syllabus
		Hazards & Disasters: When Potential Becomes Reality		Montz et al. 2017, pp 1-25
Aug 28- Sep 1	2	Physical Dimensions of Natural Hazards: Meteorological Events	Assignment #1: Mapping the World Risk Index; Reading Quiz, Ch. 1	Montz et al. 2017, pp 25-58
Sep 4-8	3	Physical Dimensions of Natural Hazards: Hydrometeorological & Climatological Events	Recent Hazard Events Summary #1 (from Aug 1- Sep 1)	Montz et al. 2017, pp 59-84
Sep 11-15	4	Physical Dimensions of Natural Hazards: Geophysical Events	Assignment #2: Mapping International Disaster Casualties; Reading Quiz, Ch. 2	Montz et al. 2017, pp 84-101
Sep 18-22	5-6	Spatial & Temporal Characteristics of Natural Hazards: Spatial Distribution & Frequency; Seasonality & Speed of Onset	Recent Hazard Events Summary #2 (Sep 2-15)	Montz et al. 2017, pp 102- 124
Sep 25-29	7	The Individual in Natural Hazards: Decision-Making & Philosophical Approaches	Reading Quiz, Ch. 3	Montz et al. 2017, pp 124- 142
Oct 2-6	8	The Individual in Natural Hazards: Situational & Personal Factors	Recent Hazard Events Summary #3 (Sep 16-29)	Montz et al. 2017, pp 143- 163
Oct 9-13	9	Community Behaviors & Attitudes Toward Hazard Adjustments	Reading Quiz, Ch. 4	Montz et al. 2017, pp 163- 184

Oct 16-20	Exam	Midterm Exam, Oct 19	None	Review for exam using study guide
Oct 23-27	10	Public Policy & Natural Hazards: Disaster Relief & Recovery	Recent Hazard Events Summary #4 (Sep 30-Oct 20); Reading Quiz, Ch. 5	Montz et al. 2017, pp 185- 215
Oct 30- Nov 3	11	Public Policy & Natural Hazards: Mitigation & Preparedness	Assignment #3: International Disaster Aid	Montz et al. 2017, pp 216- 242
Nov 6-10	12	Evacuation & Impacts of Hazards & Disasters	Recent Hazard Events Summary #5 (Oct 21-Nov 3); Reading Quiz, Ch. 6	Montz et al. 2017, pp 242- 260
Nov 13- 17	13	Risk Assessment & International Disaster Risk Reduction Policy	Assignment #4: Mapping International Disaster Damages	Montz et al. 2017, pp 261- 285
Nov 20- 21	13-14	Finish Ch. 7 reading and quiz	Reading Quiz, Ch. 7	Montz et al. 2017, pp 285- 296
Nov 27- Dec 1	14	Risk Communication	Assignment #5: Reflection on Sendai Framework	Montz et al. 2017, pp 297- 318
Dec 4-6	15	An Integrated Approach to Natural Hazards	Reading Quiz, Ch. 8	Montz et al. 2017, pp 318- 340
Dec 14	Exam	Final Exam, Dec 14	None	Review for exam using study guide

XII. Course Policies: Attendance, Make-Ups, and Grades

Attendance, Make-Up Exams and Assignments: Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found at https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/.

Examination Policies: Course policies are consistent with University policies on during-term exams, final exams, reading days, and make-up exams. Students must notify the instructor as soon as possible in case of late submission for an exam and provide documentation as to the reason for the absence. If deemed an excused absence, the student will be permitted a reasonable amount of time to make up the missed exam. More details can be found at https://catalog.ufl.edu/UGRD/academic-regulations/examination-policies-reading-days/.

Grade Dissemination: You can access your scores at any time using the Grade function in Canvas. The instructor will post grades within about one week of the due date of each assignment and reading discussion.

Grading Policies for Assigning Grade Points: Information on current UF grading policies for assigning grade points may be found at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

Grades of "Incomplete": The current university policy concerning incomplete grades will be followed in this course. An incomplete grade may be assigned at the discretion of the instructor as an interim grade for a course in which you have completed a major portion of the course with a passing grade, been unable to complete course requirements before the end of the term because of extenuating circumstances and obtained agreement from the instructor and arranged for resolution of the incomplete grade. Instructors are not required to assign incomplete grades.

XIII. Course Policies: Technology and Media

Email: Each of you has a UF email address. It is vital that you maintain an active UF email account and that you **check it often**. This tentative syllabus is **subject to change**, and any changes will be transmitted to you via your UF email account and Canvas (see below). Students should email the instructor if they have questions about any of the lectures, readings, assignments, or

exams. You should expect a response within about 24 hours during weekdays. On holidays or weekends, expect a response on the next business day. The instructor will reasonably expect similar time frames for responses to emails sent to students.

Canvas: Course materials such as lectures, readings, the syllabus, and assignment instructions will be available through Canvas (https://elearning.ufl.edu). You will also find all due dates and grades on Canvas. Students must activate their UF GatorLink account to use Canvas. If you need help learning how to perform various tasks related to this course or other courses that utilize Canvas, please consult the above webpage. You may also contact the UF Computing Help Desk at (352) 392-HELP(4357) or helpdesk@ufl.edu.

Online Course Evaluation: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing online evaluations via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

XIV. Course Policies: Student Expectations

Disabilities Statement:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center (352-392-8565, https://disability.ufl.edu/get-started/). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Academic Honesty & Conduct Policy: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor code (https://sccr.dso.ufl/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

XV. Campus Resources for Students:

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via email at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services at career.ufl.edu/.

Library Support: http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

Health and Wellness Resources

U Matter, We Care: If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, 352-392-1575, or visit <u>umatter.ufl.edu/</u> to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit https://counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit https://shcc.ufl.edu/.

University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; <u>ufhealth.org/emergency-room-trauma-center</u>.

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website at gatorwell.ufsa.ufl.edu/ or call 352-273-4450.