

NATURAL HAZARDS IN LATIN AMERICA & THE CARIBBEAN

LAS 330/GRG334C (Unique Ids: 40900 & 37802)

SPRING 2014, T/Th 11:00-12:30pm, SRH 1.320

Instructor: Carlos E Ramos-Scharrón, Ph.D.

Office: CLA 3.406, E-mail: cramos@austin.utexas.edu

Office hours: M 11AM-12PM & TH 2-3PM, or by appointment

Description: The physical landscape of Latin America and the Caribbean continues to be formed and reshaped by natural processes that have acted over geologic time scales. When these processes threaten life and property they are called natural hazards. Recent documented worldwide increases in the human and economic toll associated to natural disasters are presumably related to population growth, socioeconomic factors, and climate change. This course will cover some of the natural disasters that occur throughout Latin America and the Caribbean, one of the most natural hazard-prone areas on Earth. Through readings and in class discussions students will learn about the physical phenomena that incites natural hazards, while also emerging with a comprehensive view of the temporal and geographical distribution of hazards throughout the region. The course will present humans as susceptible to hazards but also as capable of affecting the incidence and degree of damage through direct intervention of the landscape and through deficient land use planning strategies, socioeconomic inequality, and climate change. Students will also gain a well-informed perspective on risk evaluation, short-term emergency response challenges, and hazard mitigation strategies employed throughout the region.

Exams: Students in this course will be evaluated in part through two partial written exams. Each exam will include a combination of short essay, multiple-choice, and fill-in the blank questions. There is no final exam as part of this course.

Oral presentations & Final paper: Groups of 3-4 students will prepare a 20-min long presentation on a topic of their choice that is relevant to the course. The topic must be pre-approved by the instructor and requires preparing a short, one-page summary outlining the presentation and final paper (due March 4th). Students must select and describe a case study throughout Latin America & the Caribbean and define how principles described in class apply to that particular case. The date and order of oral presentations will be selected during class time.

Each of these groups will prepare an in-depth term paper on the same topic chosen for the oral presentation. The paper is due no later than May 12th at 5pm (hardcopy). The paper must adhere to a journal format, and include appropriate references, tables, and figures. The paper must range between 2,500 to 3,000 words (not including references). Most importantly, the paper must reflect an in-depth literature review as it relates to a specific natural hazard case and relevant socioeconomic issues within the context of Latin America and the Caribbean.

Policies:

- *Attendance:* You are required to attend all classes and arrive on time. Attendance and class participation are part of your final grade. A sign-up sheet will be circulated around to record attendance. No signatures will be allowed for students showing up more than 15 minutes after the beginning of the class. Exams will be based on material discussed during class.
- *Lateness:* Late labs, exams, and papers will be assigned a 5% reduction per day.
- *Electronic media:* The use of any electronic and/or computer media other than that being used to take notes is not allowed (e.g., cell phones).

Text, Readings, and Lectures: Course readings include the required textbook (***Natural Hazards*** by Keller & DeVecchio, 2014, 4th Edition, Prentice-Hall) and a diverse array of other sources including book chapters and journal articles. Resources other than the textbook will be made available with ample time through Blackboard or are available free of charge through the UT Library System (<http://www.lib.utexas.edu/>). Students are expected to have read before class and are responsible for readings during in-class discussions and examinations.

A summary of the material to be covered during each class will be prepared in PowerPoint format, and will be made available to students via Blackboard as a *pdf* file at the end of each week.

Grading:

<i>Task</i>	<i>Percent of final grade</i>
<i>Attendance & participation</i>	<i>10%</i>
<i>Exam #1</i>	<i>25%</i>
<i>Exam #2</i>	<i>25%</i>
<i>In-class exercise</i>	<i>5%</i>
<i>Group project</i>	
<i> Proposal</i>	<i>5%</i>
<i> Oral presentation</i>	<i>15%</i>
<i> Final report</i>	<i>15%</i>

Grades will be based on the plus/minus grading system as follows:

<i>Grade</i>	<i>Overall Average</i>
A	= 93-100
A-	= 90-92
B+	= 87-89
B	= 83-86
B-	= 80-82
C+	= 77-79
C	= 73-76
C-	= 70-72
D+	= 67-69
D	= 63-66
D-	= 60-62
F	< 59

Blackboard: In this class we will use Blackboard—UT’s Web-based course management system with password-protected access at <http://courses.utexas.edu> —to distribute grades and other course materials. Check your UT-registered email regularly for updates and class announcements.

University of Texas Honor Code: The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Academic Integrity: All students are expected to adhere to University policies concerning scholastic integrity. Any form of scholastic dishonesty will not be tolerated, and will be dealt with in an appropriate manner as outlined by the University. "Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act." Students should refer to the University guidelines on Academic Dishonesty (section 11-802).

Documented Disability Statement: The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact Services for Students with Disabilities at 471-6259 (voice) or 232-2937 (video phone) or <http://www.utexas.edu/diversity/ddce/ssd>

Use of E-Mail for Official Correspondence to Students: E-mail is recognized as an official mode of university correspondence; therefore, you are responsible for reading your e-mail for university and course-related information and announcements. You are responsible to keep the university informed about changes to your e-mail address. You should check your e-mail regularly and frequently—I recommend daily, but at minimum twice a week—to stay current with university-related communications, some of which may be time-critical. Adhere to a letter writing style in any emails directed at your instructors. You can find UT Austin’s policies and instructions for updating your e-mail address at <http://www.utexas.edu/its/policies/emailnotify.php>

Religious Holy Days: By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.

Behavior Concerns Advice Line (BCAL): If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit <http://www.utexas.edu/safety/bcal>

ENVIRONMENTAL HAZARDS IN LATIN AMERICA & THE CARIBBEAN

LAS 330 & GRG 334C, SPRING 2014, Instructor: C.E. RAMOS-SCHARRON, COURSE SCHEDULE

Date	Topic	Required readings	Recommended readings	Exams/Comments
Week 1 1/14-1/16	COURSE INTRO: basic concepts, natural hazards within the LA & Caribbean context	Natural Hazards-Ch. 1 Disasters in LA-Ch. 1	Charveriat (2000)- Ch. 1 & 2	
Week 2 1/21 - 1/23	FRAMEWORK & THEORY: vulnerability, risk analysis, relief efforts, coping with adversity, and sustainability	At Risk-Ch. 2 Sustainable Dev. Ch. 17	At Risk-Ch. 3 & 9; Sustainable Dev. Ch. 18	
Week 3 1/28 - 1/30	THE EARTH'S INTERIOR & EARTHQUAKES: theory of plate tectonics, introduction to earthquakes	Natural Hazards- Ch. 2 & 3		
Week 4 2/4 - 2/6	EARTHQUAKES: communication/public information challenges, stocktaking (cost analyses) Case studies: Managua (1972); Guatemala (1976), Mexico City (1985) [social controls & political consequences]	Sustainable Dev. Ch. 15 & 20 (pp 339-354) Glass & others (1977); Olson & Gawronski (2003)	Peacock & others (1987)	
Week 5 2/11 - 2/13	EARTHQUAKES: Haiti 2010 TSUNAMIS: Intro DISCUSSION OF FINAL PROJECT	Bilham (2010); Bayard (2010); Transntl. Dev. Clinic (2013) Natural Hazards-Ch. 4	Corbane & others (2011); Pape (2010)	
Week 6 2/18 - 2/20	TSUNAMIS: Case studies: South America, Caribbean; Disaster reduction, early warning systems	Disasters in LA- Ch 3; Von Vildebrandt-Andrade (2013)	Lander & others (2002); Harbitz & others (2012); At Risk-Ch. 10	2/20 Class TBD
Week 7 2/25 - 2/27	VOLCANOES: Intro; hazards; Case Studies: Montserrat (use of hazard maps); Nevado del Ruiz-Colombia (institutional skepticism, retrospection)	Natural Hazards-Ch. 5; Haynes & others (2007); Voight (1990)		
Week 8 3/4 - 3/6	VOLCANOES: cont. EXAM REVIEW EXAM #1			Final project abstract due March 4th in class Exam # 1: March 6th
Week 9 3/11 - 3/13	SPRING BREAK			
Week 10 3/18 - 3/20	SEVERE WEATHER & CLIMATE FLOODING: Intro	Natural Hazards- Ch. 9 Natural Hazards-Ch. 6		
Week 11 3/25 - 3/27	INTRO TO HYDROLOGIC FORECASTING FLOODING: Case studies: Brasil and Argentina	Disasters in LA- Ch. 13 & 16		In-class exercise (3/25)
Week 12 4/1 - 4/3	LANDSLIDES: Intro & Case studies: Venezuela, Rio de Janeiro, Central America, Puerto Rico	Natural Hazards: Ch. 7	Disasters in LA- Ch. 6 & 12; Coe & others (2004); Larsen & Simon (1993)	
Week 13 4/8 - 4/10	HURRICANES: Intro & Case studies- Gilbert, Jamaica (rebuilding efforts); Mitch, Central America (agroecological coping alternatives)	Natural Hazards: Ch. 10 Berke & others (1993); Holt-Gimenez (2002)	Eyre (1989); Lott & others (1999); Pielke & others (2003)	
Week 14 4/15 - 4/17	HURRICANES: cont. EXAM REVIEW EXAM #2			Exam #2: April 17th
Week 15 4/22 - 4/24	FINAL PROJECT-STUDENT PRESENTATIONS			
Week 16 4/29 - 5/1	FINAL PROJECT-STUDENT PRESENTATIONS			4/29 OR 5/1 NO CLASS (TBD)
	FINAL PAPER			Final paper due May 12 (5 pm)

Notes:

Natural Hazards refers to Keller & DeVecchio, *Natural Hazards-Earth's Processes as Hazards, Disasters, and Catastrophes*, 4th ed., Prentice Hall (required text)

At Risk refers to At Risk-Natural Hazards, people's vulnerability, and disasters. Blaikie & others (1994). Routledge (provided through Blackboard)

Sustainable Development refers to *Natural Disasters and Sustainable Development*. Casale & Margottini (eds.) (2004). Springer (provided through Blackboard)

Disasters in LA refers to *Natural Hazards and Human-Exacerbated Disasters in Latin America*. Latrubesse (ed.) (2010). Elsevier ([free online resource UT Library](#))

PDFs of all required articles will be available through Blackboard