



College of Science, Engineering, and Agriculture Biological & Environmental Sciences

ENVS103/104 Natural Disasters

I. General Information

Course syllabus summer II 2015

Instructor: Johanna Delgado Acevedo, Ph.D.

Office: Science Building (STC) 262

Phone: 903.468.3333

Email: johanna.delgado-acevedo@tamuc.edu

Prerequisites: none

Book: Abbott, P. A. 2014. Natural Disasters. Ninth edition. The McGraw-Hill Companies Inc., New York, NY, USA.

II. Course Description

This course is designed to provide an overview of natural disasters, including an examination of the major disasters, plate tectonics, volcanism, tsunamis-hurricanes-storms, tornados, climate change, floods, and fire among others. An emphasis will also be placed on understanding on the mechanisms of why natural disasters occur.

III. Student Learning Objectives

To understand the effects of natural disasters in the landscapes and regions.

To understand the mechanisms of natural disasters occurrences.

To develop a reading tradition.

To develop communication skills and clarity to present ideas and explain them in public.

IV. Learning strategies

Lectures

Reading assignments

Analysis of Case Study Samples

Individual work, analysis of free reading

Homework

Audiovisual projections

V. Assumptions, Expectations, Philosophy

University students are a select group of students soon to be professionals.

Instructors can have high expectations of student performance.

Assignments and quizzes are due on time unless you have made a prior arrangement with me (only granted for unusual or extenuating circumstances and in case of health issues proper medical excuse is required).

Reading and assimilating information is a critical part of your current and continuing education. This will help you become a better writer, a more rounded individual, and expose you to subjects outside of your immediate knowledge.



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VI. Tentative course outline

Part I. Introduction and basic principles of Natural Disasters (ch. 1)

Most used terms

Human landscapes

Natural hazards

week: 1

Part II. Plate tectonics and volcanism (chs. 2-8)

Plate tectonics

Earthquake geology and seismology

Volcanic eruptions

Tsunamis

week: 2-3

Part III. Weather and Climate

External energy (chs. 9-11, 13-14, 12)

Tornados, lightening

Hurricanes

Floods

Fire

Climate Change

week: 4-5

VII. Course Requirement and Evaluation Method

Homework, quizzes, and term paper (case study) are required.

It is necessary that students have a professional and ethic behavior through the entire course.

Grade basis:

Case study (50 points)

4 Assignments (40 points)

5 Quizzes (50 points)

Total 140 points

Grading Scale: The following scale is adhered to strictly.

90.0 - 100% = A

80.0 - 89.9% = B

70.0 - 79.9% = C

60.0 - 69.9% = D

<60.0% = F

Assignments (3)

Journal articles

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education. For each assign date, a journal is named in the right column of the table, choose and read a paper from that journal that you find interesting or relevant. These journals are available in our library (online resources). On that date, provide me a citation and a short description of the paper (10 sentences).

Date	Journal
19-25 JUL	Disasters
26-1 JUL-AUG	Weather
3-8 JUAUG	Volcanology and Seismology

Case Study

Each student will identify a case study exemplifying Natural Disasters. You also will propose alternative solutions to complement and improve the example you are presenting. You will develop an essay (800-1000 words) to document your case study. Deadline is the last day of class.

Format for the case study:

I. Describe the problem or case question.

II. Describe the case

Introduction

Background

Affected area, species, communities, ecosystems

Implications

III. Conclusions

VIII. Course and University and Policies

Responsible Use of Technology — It is expected that all students will only use cellphones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class and/or other penalties. Students are not allowed to use image, video, nor audio recording devices of any kind during class time without prior consent of the instructor.

University Specific Procedures:

ADA Statement-Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities.

If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services Texas A&M-Commerce

Gee Library

Room 132

Phone (903) 886-5150 or (903) 886-5835



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Biological & Environmental Sciences**

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.