ENVS103/104 Natural Disasters

I. General Information
Course syllabus summer I 2015
Instructor: Johanna Delgado Acevedo, Ph.D.
Office: Science Building (STC) 262
Phone: 903.468.3333
Email: johanna.delgado-acevedo@tamuc.edu

Prerequisites: none


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 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
Discussions and Talks
Reading assignments to be discussed in class
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
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*

**Part III.** Weather and Climate  
- External energy (chs. 9-11, 13-14, 12)  
- Tornados, lightning  
- Hurricanes  
- Floods  
- Fire  
- Climate Change  
  *week: 3*

**Part IV.** Mass movements and Coastal Processes (chs. 15-16)  
- Mass movements  
- Coastal processes and hazards  
  *week: 4*

**Part V.** Extraterrestrial objects (ch. 17)  
- Space objects  
  *week: 5*

VII. **Course Requirement and Evaluation Method**

Homework, quizzes, exams, and term paper are required. It is necessary that students have a professional and ethic behavior through the entire course.

**Grade basis:**
- 3 tests, including final (150 points)
- Case study (50 points)
- 3 Assignments (30 points)
- 15 Quizzes (150 points)
- Total 380 points

Penalty enforcement (I reserve the right to adjust your grade for violation of the minimum expectations). Make-up exams will only be given if arrangements are made with the instructor before
missing the scheduled exam. A documented excuse will be required. Otherwise, missing exams will be counted as zeroes in the overall grade computation.

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
Reading and assimilating information is a critical part of your current and continuing 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).

<table>
<thead>
<tr>
<th>Date</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 JUN</td>
<td>Disasters</td>
</tr>
<tr>
<td>24 JUN</td>
<td>Weather</td>
</tr>
<tr>
<td>1 JUL</td>
<td>Volcanology and Seismology</td>
</tr>
</tbody>
</table>

Case Study
Each student will identify a case study exemplifying Natural Disasters. You will be responsible of understand and apply this scenario to other potential case studies. 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
   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.