# **Syllabus**

# EE 2096 COASTLINES AND COASTAL HAZARDS

Consider: At least 10% of the world's population lives in coastal areas within 10 m elevation of sea level. Coastal areas are increasingly vulnerable to coastal hazards and sea level rise. Understanding the science and related social issues behind these facts is essential for solving the related problems.

# FALL 2016 Internet

No meetings are required. Please schedule with instructor if you need to meet in person. Also see virtual office hours.

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Office Hours: By appointment. Virtual Office Hours (Big Blue Button): 3:00 pm – 5 pm

Mondays

**Prerequisites:** Consent of Department.

# I. Description

This course will provide students with a global perspective of coastal landscapes, the processes responsible for their formation, diversity, and change over time, as well as societal responses to current changes in the coastal zones around the world. Active learning elements include analyzing real data sets and applying critical thinking and problem-solving skills to real-world coastal issues that affect human populations. Students will complete a capstone project in which they consider a real-world coastal issue.

#### II. Course Goals

The purpose of this course is to enable students to analyze and understand the complex physical and social processes that form coastal zones, expose landscapes, people, and property to coastal hazards, and make them vulnerable to those hazards. Therefore, by the end of this course, students will:

- Demonstrate geospatial skills and concepts
- Explain the evolution of coastal morphology
- Link physical and social impacts of coastal hazards
- Evaluate engineering options to mitigate coastal risks
- Assess vulnerability to coastal hazards
- Create a plan for responding to coastal hazards

### Specific Learning Outcomes

# When you successfully complete this course, you will be prepared to:

• Develop the fundamental geospatial skills and concepts needed to assess the coastal processes and hazards discussed in this course;

- Link geologic time and current shoreline processes in order to explain the past and present evolution of coastline morphology;
- Assess the economic and social impacts of coastal hazards;
- Select optimal engineering options to mitigate specific risks;
- Assess how government and stakeholders can plan for and respond to coastal hazards.

#### III. Textbooks

All of the course materials are at the URL: <a href="https://www.e-education.psu.edu/earth107/orientation/course\_intro">https://www.e-education.psu.edu/earth107/orientation/course\_intro</a>

This is housed at Penn State University.

The course was developed by a partnership between Penn State, UNO, and Shippensburg University.

#### IV. Format and Procedures

#### **Format**

The course is composed of four Units, each of which contains three Modules. Therefore there are 12 modules, each of which comprises a week's worth of content and classwork.

Students will work through the Modules week by week using the online content. At the end of each Module there is a Summative Assessment assignment (sometime referred to as a Lab). These assignments are designed to engage the learner in **active learning.** 

Active learning elements include analyzing real data sets and applying critical thinking and problem-solving skills to real-world coastal issues that affect human populations. Students will complete a capstone project in which they consider a real-world coastal issue.

These Assignments will be turned in via Moodle on the Tuesday after each weekly Module is complete.

In addition, a quiz and a weekly blog will be due on the Sunday at the end of each weekly module.

### **Expectations**

On average, most students spend eight to ten hours per week working on course assignments. Your workload may be more or less depending on your study habits.

It is critical that you read the lecture material and mandatory readings each week.

Online classes may still be a novel learning environment for you, but in one sense it is no different from a traditional college class: how much and how well you learn is ultimately up to you. You will succeed if you are diligent about keeping up with the class schedule and if you take advantage of opportunities to communicate with me as well as with your fellow students.

Here are some quick tips to keep in mind when preparing to be successful in an online course:

• Treat online learning as you would a face-to-face class. You should plan to devote at least the same amount of time to your online courses as you would to attending lectures on

campus and completing assignments. Other good study habits, such as attending class (logging on) regularly and taking notes, are just as important in an online course as they are in a lecture hall!

- **Intentionally schedule your time.** You should plan to devote 10-12 hours per week to completing lesson readings and assignments. Your learning will be most effective when you spread this participation out and engage with the course on a daily basis, if possible.
- Engage, Engage! Take every opportunity to interact with the content, the instructor and your classmates by completing assignments and participating in discussion forums and group activities!
- **Be organized.** Keep in sync with what's going on in the course and stay on top of deadlines and upcoming assignments.
- **Ask for help!** Ask for guidance when you are in need of clarification. You can also use the Discussion Forum to ask general questions about the course set-up or content.

### **COMMUNICATION METHODS:**

There are several ways to communicate with me and engage with the rest of the class:

- 1. By email: dmaygard@uno.edu
- 2. Scheduling an appointment to meet or talk on the phone. Schedule via email.
- 3. Between 3 and 5 pm each Monday, I will set up an online meeting (details will be sent in an email during the first week of the semester. You can join a discussion of the week's module and assignments at that time and you will be able to post/ask questions about the topics and assignments. While participation is not required, I highly recommend these opportunities to interact. You can join for as much or as little time as needed.
- 4. Posting in Forums created in Moodle and found in each section.

Whenever you post a message in a forum or send course mail, use a descriptive subject line. Subject lines that include the gist of a question or comment increase the chances that recipients can retrieve the messages we're looking for. Poor subject lines, such as "Question" or "Lesson 1," are useless as search keywords.

Specific learning objectives for each module and project are detailed within each module.

### **Late Policy**

We accept late work *only* in exceptional circumstances, but you must contact us immediately if you need an exception. The earlier you contact us to request a late submission, the better. Requests will be considered on a case by case basis. *If you miss a quiz or a blog entry, that will count as your dropped score. Late labs will be assessed a penalty of 10% per day.* 

# V. Assignments

This course will rely on a variety of methods to assess and evaluate student learning, including:

- Weekly quizzes multiple choice, administered through your course management system;
- Labs: there are one or more lab activities each week. You will do them on worksheets and submit your answers via Moodle
- **Blogs:** Blogs are due most weeks. They will be added directly to Moodle in a Forum.
- Capstone activity: will be introduced at the end of Module 3. It is due at the end of the Semester (Dec 6).

It is important that your work be submitted in the proper format by the designated due date. We strongly advise that you not wait until the last minute to complete these assignments—give yourself time to ask questions, think things over, and chat with others. You'll learn more, do better...and be happier!

Due dates for all assignments are posted in the syllabus for your campus and below. Please make sure you are aware of the weekly deadlines.

**Bonus Credit** 

# VI. Grading Procedures

# **Percentages and Letter Grades**

Breakdown of each assignment's value as a percentage of total course grade.

Assignment	Percent of Grade		
Quizzes (12)	25%		
Labs (12 weeks one lab/week)	40%		
Blogs (12)	10%		
Final Project (1)	25%		

Your scores for all assignments will be kept current in the Moodle.

I will convert the final average to a letter grade according to the following scheme:

- $90-100 \Rightarrow A$
- $80-89 \Rightarrow B$
- 70-79 ⇒ C
- $60-69 \Rightarrow D$
- $0-59 \Rightarrow R$  (failing grade)

Course Schedule								
Sunday	Monday	Tuesday	Wednes day	Thursday	Friday	Saturday		
Blog posts are due by Midnight. Quizzes are due by Midnight.	Optional Big Blue Button meeting "drop in" to ask questions 3 – 5 pm	Lab Assignments are due Tuesday midnight after the module closes.						

Note: Labs are due in the following week lab period (i.e., Lab 1 is due in Lab 2 lab period).

## VIII. Academic Integrity

Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the <u>Student Code of Conduct for further information</u>.

When completing assignments, always cite your sources; use quotation marks and citation whenever quote directly; always use your own words when writing on a topic.

#### IX. Accommodations for students with disabilities

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to the Office of Disability Services website.

#### X. Online Student Verification Procedures

To ensure academic integrity, all students enrolled in distance learning courses at the University of New Orleans may be required to participate in additional student identification procedures. At the discretion of the faculty member teaching the course, these measures may include on-campus proctored examinations, off-site or online proctored examinations, or other reasonable measures to ensure student identity. Authentication measures for this course are identified below and any fees associated are the responsibility of the student.

#### **XI. Online Proctoring**

The University of New Orleans partners with Proctor U, a live, online proctoring service that allows students to complete exams from any location using a computer, webcam and reliable internet connection. For information on fees, technology requirements, and how to use the proctoring service, refer to UNO's Proctor U site.

XII. Tentative Course Schedule including due dates for assignments, projects, tests, final exam.

This schedule is tentative and may change over the course of the semester. Students are responsible for keeping up with any announced changes.

## **EES 2096: TENTATIVE SCHEDULE (subject to change)**

#### Date

# Unit I. Introduction to the Coastal Zone: Society, Landforms, and Processes

**Topics** 

Week of August 17 - 21

Module 1: Course Orientation

Blog – "Getting to Know you" Due by Midnight August 21.

Week of August 22

Module 1: The Societies and Economics of Coastal Regions

Module 1 Quiz Due By Midnight August 28

Module 1 Blog Entry Due BY Midnight August 28

Module 1 Lab Assessment due BY midnight August 30

Week of August 29 - Sept 4

**Module 2:** A Global Glance of the Geology of Coastal Landscapes

Module 2 Quiz Due By Midnight September 4

Module 2 Blog Entry Due By Midnight September 4

Lab Assessment for Module 2 Due BY midnight September 6

Week of September 5-11

**Module 3:** Physical Processes Active in Coastal Landscapes

Module 3 Quiz Due By Midnight September 11

Module 3 Blog Entry Due By Midnight September 11

Lab Assessment for Module 3 Due BY midnight September 13

# <u>Unit II. Introduction to Coastal Zone Hazards: Long and Short-term Processes of Change</u> and Their Impacts on Society

Week of September 12-18:

Module 4: Understanding Sea Level Change

Module 4 Quiz Due By Midnight September 18

Module 4 Blog Entry Due By Midnight September 18

Module 4 Lab Assessment Due BY Midnight Sept 20

Week of September 19-25:

**Module 5:** Coastal Catastrophes: Storms and Tsunamis

Module 5 Quiz Due By Midnight Sept 25

Module 5 Blog Entry Due By Midnight Sept 25

Assessments for Module 5 Due BY midnight September 28

Week of Sept 26 - October 2

**Module 6:** Impacts on the Societies and Economics of Coastal Regions

Module 6 Quiz Due By Midnight October 2

Module 6 Blog Entry Due By Midnight October 2

Lab Assessment for Module 6 Due BY midnight October 4

### Unit III. Coastal Engineering, Mitigation and Societal Response to Coastal Hazards

Week of October 3 - 9

Module 7: Hard Structures and Coastal Modifications through Mimicking Natural Processes

Module 7 Quiz Due By Midnight October 9

Module 7 Blog Entry Due By Midnight October 9

Assessments for Module 7 Due By midnight October 12

### Oct 10 – Oct 16 - Mid Semester Break (Oct 13- 14)

Week of October 17 - 23:

Module 8: Managed Retreat/Multi-Layered Protection

Module 8 Quiz Due By Midnight October 23

Module 8 Blog Entry Due By Midnight October 23

Lab Assessment for Module 8 Due By midnight October 25

Week of October 24 -30:

Module 9: Smart Building

Module 9 Quiz Due By Midnight October 30

Module 9 Blog Entry Due By Midnight October 30

Lab Assessment for Module 9 Due BY Midnight November 1

### **Unit IV. Society and Policy Making**

Week of October 31 November 6:

Module 10: Understanding and assessing coastal vulnerability

Module 10 Quiz Due By Midnight November 6

Module 10 Blog Entry Due By Midnight November 6

Lab Assessment for Module 10 Due BY midnight November 8

Week of November 7 - 13:

**Module 11:** Tsunami and storm surge policy

Module 11 Quiz Due By Midnight November 13

Module 11 Blog Entry Due By Midnight November 13

Lab Assessment for Module 11 Due November 15

Week of November 14 - 21:

**Module 12:** Sea level rise policy

Module 12 Quiz Due By Midnight November 21

Module 12 Blog Entry Due By Midnight November 21

Lab Assessment for Module 12 Due BY midnight November 23

Nov 22 - 27

THANKSGIVING HOLIDAY

Week of December Nov 28 – Dec 4:

Complete Final Assessment. Final Assessment due By midnight December 6