University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

Coastal Risk and Resilience
1 credit

MEES
608U
Fall 2018

Course Objectives / Overview

Coastal areas, infrastructures, and communities are extremely vulnerable to the effects of climate change, including accelerated sea-level rise and intensified storm events. Understanding and predicting the risks to coasts and potential management actions to increase coastal resiliency requires an interdisciplinary approach. This seminar focuses on the theories, methods, practical skills, and contextual knowledge needed to address this topic through student-led discussions of primary literature. The proposed course offers students an introduction to coastal risk and resilience problems and is designed to create new collaborations between students and faculty from various disciplines to inspire new interdisciplinary research.

Expected Learning Outcomes
Students will be able to:
- Understand potential impacts and risks to coasts under anticipated climate-change scenarios
- Evaluate various coastal vulnerability tools
- Assess strategies to increase coastal resilience
- Critically read and synthesize relevant scientific literature
- Communicate effectively in group discussions

Course Assessment / Grading

Students will be assessed by their participation in class discussions (100% of final grade). Each student will be expected to lead at least one class meeting.

INSTRUCTOR DETAILS:
Cindy Palinkas
cpalinkas@umces.edu
410-221-8487

William Nardin
wnardin@umces.edu
410-221-8232

CLASS MEETING DETAILS:
Dates: M
Times: 11:00am-12:00 pm
Originating Site: HPL
IVN bridge number: (*******)
Phone call in number: (***)
Room phone number:(*****)

COURSE TYPE:
Check all that apply
☐ Foundation
☐ Professional Development
☐ Issue Study Group
☒ Seminar
☐ Elective

Prerequisites
N/A

Teaching Assistant
N/A

Tentative Weekly Course Schedule

Please note that the following schedule and discussion topics are tentative and will be discussed in the first class meeting. Each student will be assigned to lead one or more class meetings, after the first week; the schedule will be posted to Moodle.

Week	TOPIC	READING	LEAD
08/27/2018	Introduction to Coastal Risk and Resilience (course logistics and schedule) - 1		Palinkas, Nardin
09/10/2018	Introduction to Coastal Risk and Resilience (course logistics and schedule) - 2		
09/17/2018	Coastal impacts under anticipated climate-change scenarios		
09/24/2018	Coastal inundation		
10/01/2018	Storms (hurricanes)		
10/15/2018	Sea level rise		
10/22/2018	Global and regional climate modeling		
10/29/2018	Ecosystem service valuation		
11/05/2018	Coastal vulnerability tools		
11/12/2018	Assessment modeling, decision-making		
11/19/2018	Coastal habitat restoration		
11/26/2018	Coastal protection structures (reefs, living shorelines)		
12/03/2018	Coastal engineering and risk mitigation		
12/10/2018	Coastal geomorphology and landscape evolution - 1		
12/17/2018	Coastal geomorphology and landscape evolution - 2		

Class format and student expectations

The leader for each week will identify and disseminate readings to the class in consultation with the instructors. These materials must be posted to Moodle at least 1 week in advance. The leader will be expected to provide a brief (~5 minutes) introduction to the topic, and then lead a discussion of the readings. All students are expected to actively participate in all discussions.

Required textbooks, reading and/or software or computer needs

No textbook. Access to computer with any operational system.

Course Communication and Resources

Course readings, lecture notes, communications and assessments will be disseminated via Moodle. Instructors are generally available via email and office phone during normal business hours.

Campus Policies

The University of Maryland Center for Environmental Science has drafted and approved of various academic and research-related policies by which all students and faculty must abide.

Please visit http://www.umces.edu/consolidated-usm-and-umces-policies-and-procedures for a full list of campus-wide academic policies.