

# IDS 2935: Living with Rising Seas

## Quest 2

### I. General Information

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#### Class Meetings

- Fall 2023
- Meeting Day/Time: Tuesdays period 5-6/Thursdays period 6
- Location: McCarty Hall C 0100 (T); McCarty Hall B G086 (R)

#### Instructor

- Dr. Katy Serafin
- Office Location: 3140 Turlington Hall
- Office Hours: Tuesdays and Thursdays, 2-3pm or by appointment (please email to schedule)
- Email: [kserafin@ufl.edu](mailto:kserafin@ufl.edu), Office Phone: 352-294-9052

#### Teaching Assistant

- Ms. Gabrielle Quadrado
- Email: [gpereiraquadrado@ufl.edu](mailto:gpereiraquadrado@ufl.edu)

#### Course Description

Coastlines, home to much of the world's population, economy, and important ecosystems, are changing in critical ways due to rising seas. This course examines the complex relationship between humans and coastlines by asking the pressing question, "How will humanity adapt to sea level rise?" Students will connect the science of sea level rise and coastal change to impacts on infrastructure, ecosystems, and society. Students will explore multiple facets of sea level rise through place-based learning, investigating cross-disciplinary topics such as the physical drivers and consequences of sea level rise, mitigation techniques, and adaptation, using examples from our home state of Florida. Students will examine how social inequities within the United States exacerbate the disproportionate impacts of sea level rise, and how existing policies and adaptation strategies may perpetuate inequity. Students will consider the transformative shifts that will be necessary in current decision-making to develop resilient, sustainable, and equitable coastal futures. Students will explore these themes through in-class discussions and activities, experiential learning, and reflections on their and others' relationship with the coast.

## Quest and General Education Credit

- Quest 2
- Physical Sciences (P)
- Diversity (D)

This course accomplishes the Quest and General Education objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

## Required Readings and Works

Materials and Supplies Fees: n/a

### Required:

Rush, Elizabeth, 2019, *Rising: Dispatches from the New American Shore*, Edition 1, Milkweed Editions, Minneapolis, Minnesota.\*\*

\*\*An electronic copy is available through Course Reserves

All other readings will be provided in class or as .pdf format on Canvas.

### Recommended:

Hine et al., 2016, *Sea Level Rise in Florida: Science, Impacts, and Policy*. University of Florida Press.\*

\* There will be some optional readings from this book but you are not required to do them or purchase. A great supplemental read if you are interested in sea level rise specific to Florida!\*

## II. Graded Work

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### Description of Graded Work

Assignment	Description	Requirements	Points (Percent)
Learning Check-Point Quizzes	Most weeks, students will complete a 5 question, multiple choice quiz on Canvas that will test their understanding of the readings and lecture material (10 points each).	12 weekly quizzes, lowest score dropped  Due by 11:59pm on Friday	110 (11%)
Class Participation and Discussions	All students are expected to participate in class activities and discussions according to the course guidelines. A rubric for class participation can be found below.	Students are expected to attend/participate in every class.	84 (8.4%)

Discussion Preparation	Every other week, Tuesday's class will focus on discussion of weekly reading material. Students will submit 1 key takeaway/main points per reading and 1 question from the required literature they have reviewed at least one hour prior to Tuesday's class.	3-4 main points/key takeaways 1-2 questions	26 (2.6%)
Leading/Reporting Discussions	Each student will have a chance to lead and report during small group discussion focused on the weekly readings and lecture. Students will be assigned dates and specific discussion topics to lead once the number of students in the class is finalized.	Facilitate during and report back discussion stance to the larger group at the end of class  Each student will lead and report 1 discussion	100 (10%)
In-class Activities	Every other week we will have an in class activity to complete. Depending on the activity, students will work individually or in a group. Activities will introduce hands-on learning concepts and usually focus on place-based material (30 points each).  In-Class activity responses must be turned in by Friday.	7 weekly in-class activities, lowest score dropped  Due by 11:59pm on Friday	180 (18%)
Guided Reflections	During the semester, students will reflect on their own experiences and uses of the coastline. Students will also read excerpts from the book "Rising: Dispatches from the New American Shore" to reflect on others' personal narratives about sea level rise impacts on their homes and families. Students will write four reflections during the term following prompts from the instructor (15 pts each). Reflections should have a word length of approximately 200-300.	3 total  Due dates on Canvas	100 (10%)
Midterm	During week 7, students will have a short answer, open book midterm focused on the physical processes	Short-answer, open book	100 (10%)

	that drive sea level and landscape change across different environments (weeks 1-7).		
Final Project	<p>During this course, students will connect the science of sea level rise and coastal change to impacts on infrastructure, ecosystems, and society. As a final project, students will work in groups and consider how coastal cities are planning for future sea level rise.</p> <p>At the beginning of the semester, students will select three cities of interest and be assigned one to research during the term. Students will be grouped into small groups based on their city selection. Students will answer questions about their city of interest on a powerpoint after different Modules and work towards examining their coastal city's resilience to sea level rise. Ultimately, students will build a Story Maps which helps to create an informative, multimedia narrative of their results.</p> <p>The final output will be an ArcGIS StoryMap, which is a multimedia narrative for immersive storytelling (see an example of what an ArcGIS Storymap is here: <a href="https://doc.arcgis.com/en/arcgis-storymaps/gallery/">https://doc.arcgis.com/en/arcgis-storymaps/gallery/</a>), which is due during Finals week.</p> <p>Stages of project development will be graded and returned to the student to ensure progress.</p>	<ol style="list-style-type: none"> <li>1) City Choice: (10 pts; 1%)</li> <li>2) Natural System Assessment (20 pts; 2%)</li> <li>3) Human System Assessment &amp; Engineering and Infrastructure Assessment (20 pts; 2%)</li> <li>4) Draft Project and Peer Review of 2 other groups' drafts (50 pts each, 100 pts, 10%)</li> <li>5) Final Project (150 pts; 15%)</li> </ol>	300 (30%)
Total			1000 pts

## Grading Scale

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	93.5 – 100% of possible points		C	73.5 – 76.5%
A-	89.5 – 93.5%		C-	69.5 – 73.5%
B+	86.5 – 89.5%		D+	66.5 – 69.5%
B	83.5 – 86.5%		D	63.5 – 66.5%
B-	79.5 – 83.5%		D-	59.5 – 63.5%
C+	76.5 – 79.5%		E	<59.5

## Grading Rubric(s)

**Participation:** Participation and attendance are critical to the successful completion of this course. Attendance will be taken during each class meeting and reported. Consistent informed, thoughtful, and considerate class participation is expected and will be evaluated using the rubric below. I will inform you of your participation grade to date when mid-term exams are returned.

**Note:** If you have personal issues that prohibit you from joining freely in class discussion, e.g., shyness, language barriers, etc., see the instructor as soon as possible to discuss alternative modes of participation.

### Participation Rubric

	High Quality	Average	Needs Improvement
Informed: Shows evidence of having done the assigned work.	2	1.6	1
Thoughtful: Shows evidence of having understood and considered issues raised.	2	1.6	1
Considerate: Takes the perspective others into account.	2	1.6	1

**Grade Disputes:** Should a student wish to dispute any grade received in this class (other than simple addition errors), the dispute must be in writing and be submitted to the instructor within a week of receiving the grade. The dispute should set out very clearly, the grade that the student believes the assignment should have received as well as why they believe that they should have received such a grade.

### III. Annotated Weekly Schedule

Students should note that .pdf syllabus is a guideline and that there may be changes to the class schedule. Please refer to our [Canvas page for the official weekly readings, assignments, and due dates.](#)

Week	Topics, Homework, and Assignments
Week 1	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Introduction to the course</li> <li>• <b>Summary:</b> We will discuss the structure of the class during the term.</li> <li>• <b>Assignments:</b> Enjoy the first week of classes!</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• <b>Lecture Topic:</b> How do we know sea level is rising?</li> <li>• <b>Summary:</b> We will explore how observations from tide gauges and satellite altimetry illustrate present-day sea level rise.</li> <li>• <b>Readings/Works:</b> <ol style="list-style-type: none"> <li>1. How to Read a Scientific Article, Adapted from Drs. Purugganan and Hewitt; Cain Project in Engineering and Professional Communication</li> <li>2. Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. The Password, pg 1-15 <i>*Pages might be different for the e-book - please read the whole chapter.*</i></li> <li>3. Dusto, A. ( 2014), <a href="#">Reading between the tides: 200 years of measuring global sea level</a> (optional)</li> </ol> </li> <li>• <b>Activity/Discussion:</b> Ice Breaker Bingo/How class discussions will work</li> <li>• <b>Assignments:</b> Reflection #1 due Friday Activity #1 due Tuesday in-class Quiz #1 due Friday</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• <b>Lecture Topic:</b> Why is sea level rising?</li> <li>• <b>Summary:</b> We will explore the main drivers of global and regional sea level change including thermal expansion, ice sheet and glacier loss, and oceanographic and geological processes.</li> <li>• <b>Readings/Works:</b> <ol style="list-style-type: none"> <li>1. Kottasova, I. and Doran, T., <a href="#">A drop in the ocean</a>. CNN (approx. 10 pages)</li> <li>2. Frederikse, T., et al. (2020). The causes of sea-level rise since 1900. <i>Nature</i>, 584(7821), 393-397 (optional)</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #1</li> <li>• <b>Assignments:</b> Part 1: City Choice due Wednesday Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Quiz #2 due Friday</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• <b>Topic:</b> How has sea level changed in the past?</li> </ul>

Week	Topics, Homework, and Assignments
	<ul style="list-style-type: none"> <li>• <b>Summary:</b> We will explore past climate-driven global fluctuations of sea level in the past and how past sea level is inferred through geological and biological proxies.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1. Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. Persimmons, pg 19-41. <i>*Pages might be different for the e-book - please read the whole chapter.*</i></li> <li>2. Dutton, A., et al (2015). Sea-level rise due to polar ice-sheet mass loss during past warm periods. <i>Science</i>, 349(6244), pg 1 – 7. (optional)</li> </ol> </li> <li>• <b>Activity:</b> In-Class Activity #2: SLR rates</li> <li>• <b>Assignments:</b> In-Class Activity #2 due Friday Quiz #3 due Friday</li> </ul>
Week 5	<ul style="list-style-type: none"> <li>• <b>Topic:</b> How will sea level change in the future?</li> <li>• <b>Summary:</b> We will explore future sea level rise projections, including the range of sea level rise due to the uncertainty in mechanisms driving change. We will compare global sea level change to sea level change in our home state of Florida.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1. Clark, P. U., et al. (2016). Consequences of twenty-first-century policy for multi-millennial climate and sea-level change. <i>Nature Climate Change</i>, 6(4), pg 360-369.</li> <li>2. Grunes, M., (2023). How We Came to Know and Fear the Doomsday Glacier, Haiku Magazine.</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #2</li> <li>• <b>Assignments:</b> Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Quiz #4 due Friday</li> </ul>
Week 6	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Sea level rise impact on sandy beaches</li> <li>• <b>Summary:</b> We will explore how beaches, barriers and islands respond to sea level change. Topics discussed include coastal morphology, coastal erosion, and barrier island roll over.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1. Vousdoukas, M. I., Ranasinghe, R., Mentaschi, L., Plomaritis, T. A., Athanasiou, P., Luijendijk, A., &amp; Feyen, L. (2020). Sandy coastlines under threat of erosion. <i>Nature climate change</i>, 10(3), 260-263.</li> <li>2. "Beaches can survive sea-level rises as long as they have space to move." University of Plymouth Press Release, 2020.</li> <li>3. Vousdoukas, M. I., Ranasinghe, R., Mentaschi, L., Plomaritis, T. A., Athanasiou, P., Luijendijk, A., &amp; Feyen, L. (2020). Reply to: Sandy beaches can survive sea-level rise. <i>Nature Climate Change</i>, 10(11), 996-997. (optional)</li> </ol> </li> <li>• <b>Activity:</b></li> </ul>

Week	Topics, Homework, and Assignments
	<p>In-Class Activity #3</p> <ul style="list-style-type: none"> <li>• <b>Assignments:</b> In-Class Activity #3 due Friday Quiz #5 due Friday</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Sea level rise impacts on coastal forests, marshes, and mangroves</li> <li>• <b>Summary:</b> We will explore how marshes, mangroves, and coastal forests respond to sea level change. Topics discussed will include intertidal zones, sedimentation, habitat migration, and coastal squeeze.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1. Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. Milkweed Editions. The Marsh at the End of the World, pg 47-66. <i>*Pages might be different for the e-book - please read the whole chapter.*</i></li> <li>2. Kirwan, M. L., Temmerman, S., Skeeahan, E. E., Guntenspergen, G. R., &amp; Fagherazzi, S. (2016). Overestimation of marsh vulnerability to sea level rise. Nature Climate Change, 6(3), 253-260.</li> <li>3. Velasquez-Manoff, M., <a href="#">As sea levels rise, so do ghost forests</a>. New York Times* The NYTimes website has amazing visuals -- you can access NYTimes for free as a UF student!</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #3</li> <li>• <b>Assignments:</b> Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Quiz #6 due Friday Part 2: Natural System Assessment due Wednesday</li> </ul>
Week 8	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Sea level rise impacts on coastal species + Midterm Review</li> <li>• <b>Summary:</b> We will explore how coastal wildlife such as turtles and birds, are impacted by sea level rise with a change to their habitat.</li> <li>• <b>Required Readings/Works:</b> None</li> <li>• <b>Assignments:</b> Midterm on Thursday ** Visit Florida Museum of Natural History, "South Florida People &amp; Environments" exhibit by this week!**</li> </ul>
Week 9	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Humans and the Coast: Sea level rise impact on society</li> <li>• <b>Summary:</b> We will explore how humans have inhabited and utilized the coast over time and the consequences of development along a dynamic coastline. We will discuss specific impacts to the built environment and economy, like impacts to roads, businesses, and real estate.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. Pulse, pg 71-97 <i>*Pages might be different for the e-book - please read the whole chapter.*</i></li> </ol> </li> </ul>



Week	Topics, Homework, and Assignments
	<p>2) Mazzei, P. (2019), <a href="#">82 Days Underwater: The Tide is High but They're Holding On</a>. The New York Times.</p> <p>3) Urbina, I., (2016), <a href="#">Perils of Climate Change Could Swamp Coastal Real Estate</a>. The New York Times.</p> <p>4) Hino, M., Belanger, S. T., Field, C. B., Davies, A. R., &amp; Mach, K. J. (2019). High-tide flooding disrupts local economic activity. <i>Science advances</i>, 5(2), pg 1 - 7 *don't worry about reading the methods unless you are interested*</p> <ul style="list-style-type: none"> <li>• <b>Activity</b> In Class Activity #4</li> <li>• <b>Assignments:</b> In Class Activity Due Friday Quiz #7 due Friday Reflection #2 due Friday</li> </ul>
Week 10	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Humans and the Coast: Social Vulnerability</li> <li>• <b>Summary:</b> We will explore human vulnerability to sea level rise by evaluating who is exposed to flooding. We will use the Social Vulnerability Index to consider the disproportionate impacts of sea level rise through an equity lens.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. On Vulnerability, pg 133-135*<i>Pages might be different for the e-book - please read the whole chapter.</i>*</li> <li>2) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore. Risk, pg 137-161 **<i>TW: mention of sexual assault/harassment pg 142, pg 152 - 154</i>**<i>Pages might be different for the e-book - please read the whole chapter.</i>*</li> <li>3) Hobbs, S. and Dennis, R., 2020, <a href="#">Flooding intensifies Charleston region's racial and wealth inequities</a>. The Post and Courier.</li> <li>4) Cutter, S. L., Boruff, B. J., &amp; Shirley, W. L. (2003). Social vulnerability to environmental hazards. <i>Social science quarterly</i>, 84(2), 242-261.</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #4</li> <li>• <b>Assignments:</b> Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Quiz #8 due Friday</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Adaptation and Mitigation: Hard and Soft Solutions</li> <li>• <b>Summary:</b> We will explore the contemporary terms “accommodate” and “protect” as strategies for combating sea level rise in coastal areas. We will discuss seawalls, beach nourishment, raising infrastructure, and natural solutions.</li> <li>• <b>Required Readings/Works:</b></li> </ul>

Week	Topics, Homework, and Assignments
	<ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, <i>Rising: Dispatches from the New American Shore</i>. On Restoration, pg 206-210</li> <li>2) Rush, Elizabeth, 2019, <i>Rising: Dispatches from the New American Shore</i>. Looking Backwards and Forwards in Time, pg 213-251</li> <li>3) Grubba, L., 2020, Beach Nourishment: not just throwing good sand after bad. Adapt.</li> <li>4) Sack, K. &amp; Schwartz., J. 2018. <a href="#">Left to Louisiana’s Tides, a Village Fights for Time</a>. The New York Times</li> </ol> <ul style="list-style-type: none"> <li>• <b>Activity</b> In Class Activity #5</li> <li>• <b>Assignments:</b> In Class Activity Due Friday Quiz #9 due Friday</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Adaptation and Mitigation: Managed Retreat</li> <li>• <b>Summary:</b> We will explore the contemporary term “retreat” as a strategy for combating sea level rise in coastal areas. We will focus on examples of recent cases of managed retreat such as in Isle de Jean Charles, LA and the potential for retreat to exacerbate inequality</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Bromhead, H., 2022. <a href="#">“Managed Retreat” Is a Terrible Way to Talk About Responding to Climate Change</a>. Slate.</li> <li>2) Rush, Elizabeth, 2019, <i>Rising: Dispatches from the New American Shore</i>. On Reckoning, pg 93-97 <b>**TW: mentions guns, pg 97**</b></li> <li>3) Rush, Elizabeth, 2019, <i>Rising: Dispatches from the New American Shore</i>. On Opportunity, pg 162-165</li> <li>4) Rush, Elizabeth, 2019, <i>Rising: Dispatches from the New American Shore</i>. Goodbye Cloud Reflections in the Bay, pg 167-180</li> <li>5) Siders, A.R. (2019). Social justice implications of US managed retreat. <i>Climatic Change</i>, 152, 239-257.</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #5</li> <li>• <b>Assignments:</b> Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Quiz #10 due Friday Part 3: Human System &amp; Engineering and Infrastructure Assessment due Wednesday</li> </ul>
Week 13	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Decision-making and sea level rise adaptation</li> <li>• <b>Summary:</b> We will explore the costs and benefits of different adaptation and mitigation techniques. We will explore how traditional risk assessments and cost-benefit analysis often leave out social vulnerability. Students will participate in a roleplay exercise (adapted from the “Sea Level Rise Adaptation Strategy Role Play</li> </ul>

Week	Topics, Homework, and Assignments
	<p>Game” by Dr. Dawn Jourdan and Briana Ozor) to show the complexities involved with merging science with decisions. We will also consider how the "typical" or "traditional" ways to assess risk through cost-benefit analysis often leave out social vulnerability.</p> <ul style="list-style-type: none"> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore, On Gratitude, pg 42-45</li> <li>2) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore, Divining Rod, pg 113 - 132.</li> <li>3) Martinich, J., Neumann, J., Ludwig, J. &amp; Jantarasami, L. (2013). Risk of sea level rise to disadvantaged communities in the United States. <i>Mitigation and Adaptation Strategies for Global Change</i>, 18, 169-185.</li> <li>4) Flavelle, C., 2020. <a href="#">A climate plan in Texas focuses on minorities. Not everyone likes it.</a> The New York Times</li> </ol> </li> <li>• <b>Activity</b> In Class Activity #6</li> <li>• <b>Assignments:</b> In Class Activity due Friday Quiz #11 due Friday</li> </ul>
Week 14	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Policy implementation and sea level rise</li> <li>• <b>Summary:</b> First, we will finish up discussing decision-making and sea level rise. We will explore how adaptation is actually implemented in practice, as well as obstacles to adaptation. We will consider who might be left out of policy considerations. Then, we will explore how sea level rise planning is incorporated in local planning initiatives and whether the most vulnerable populations are being considered in current climate planning if at all?</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore, Afterward, pg 253-264.</li> <li>2) Hardy, R.D., Milligan, R.A., and Heynen, N. (2017) Racial coastal formation: The environmental injustice of colorblind adaptation planning for sea level rise. <i>Geoforum</i>. 87, 62-72.</li> <li>3) Berke, P., Yu, S., Malecha, M., &amp; Cooper, J. (2019). Plans that disrupt development: Equity policies and social vulnerability in six coastal cities. <i>Journal of Planning Education and Research</i>. 1 - 16.</li> </ol> </li> <li>• <b>Discussion:</b> Discussion #6</li> <li>• <b>Assignments:</b> Key Takeaways/Questions due Tuesday Leader submission due Tuesday Reporter submission due Thursday Part 4a. Draft Project due Wednesday *No Thursday class this week, Thanksgiving Holiday!*</li> </ul>

Week	Topics, Homework, and Assignments
Week 15	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Policy implementation and sea level rise</li> <li>• <b>Summary:</b> First, we will use examples such as Miami-Dade County's Sea Level Rise Strategy and Adapting to Rising Tides in San Francisco to understand how social vulnerability is implemented across different planning efforts.</li> <li>• <b>Required Readings/Works:</b> <ol style="list-style-type: none"> <li>1) Rush, Elizabeth, 2019, Rising: Dispatches from the New American Shore, Afterward, pg 253-264.</li> <li>2) Hardy, R.D., Milligan, R.A., and Heynen, N. (2017) Racial coastal formation: The environmental injustice of colorblind adaptation planning for sea level rise. <i>Geoforum</i>. 87, 62-72.</li> <li>3) Berke, P., Yu, S., Malecha, M., &amp; Cooper, J. (2019). Plans that disrupt development: Equity policies and social vulnerability in six coastal cities. <i>Journal of Planning Education and Research</i>. 1 - 16.</li> </ol> </li> <li>• <b>Activity</b> In Class Activity #6</li> <li>• <b>Assignments:</b> In Class Activity due Friday Part 4b. Draft Project Peer Review due Wednesday Quiz #12 due Friday</li> </ul>
Week 16	<ul style="list-style-type: none"> <li>• <b>Summary:</b> Planning for a sustainable and equitable future, final reflections and questions We will recap the course and discuss open questions in the field of sea level rise, coastal science, adaptation, and resilience. No Class on Thursday, reading day! Reflection #3 due</li> </ul>
Finals Week	Final Project due

## IV. Student Learning Outcomes (SLOs)

At the end of this course, students will be expected to have achieved the [Quest](#) and [General Education](#) learning outcomes as follows:

**Content:** *Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline(s).*

- Identify, describe, and explain how sea level rise is observed in present-day and past records, the processes that drive long-term sea level change, and regional projections of sea level change (**P**). **Assessments:** Learning Check Point Quizzes, In-Class Activities, Midterm Exam, Class Discussions and Participation
- Compare and contrast how sea level rise impacts a variety of landscapes, and the techniques humans use to mitigate these changes along developed coastlines (**P, Quest 2**). **Assessments:** Learning Check Point Quizzes, In-Class Activities, Midterm Exam, Class Discussions and Participation

- Identify, describe, and explain the Social Vulnerability Index and how it can be used to highlight existing spatial inequalities and how this landscape may change (**D**). **Assessments:** In-Class Discussions, In Class Activities, Guided Reflection
- Describe the relationship with the coastline across different communities and cultures, and what this means for response to sea level rise (**D**). **Assessments:** In-Class Discussions, In Class Activities, Guided Reflection

**Critical Thinking:** *Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).*

- Evaluate and apply science-based principles needed to inform management and policy outcomes designed to manage, adapt, or mitigate impacts from sea level rise (**P, Quest 2**). **Assessments:** In-Class Role Play, In-Class Activities, Midterm Exam, Final Project, Class Discussions and Participation
- Analyze and evaluate how social vulnerability and equity can be addressed in sea level rise adaptation planning (**D**). **Assessments:** In-Class Discussions, In Class Activities, Guided Reflections, Final Project

**Communication:** *Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).*

- Develop a research project related to how sea level rise will impact a topic of interest (**P, Quest 2**). **Assessments:** Class Discussions and Participation, Final Project
- Present technical, scientific papers distilled to key points and main message (**P, Quest 2**). **Assessments:** Class Discussions and Participation, Final Project

**Connection:** *Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.*

- Reflect on how they utilize the coastline, how sea level rise may alter those uses, and how their perspective compares to others with different cultural backgrounds (**Quest 2**). **Assessments:** Guided Reflections, Experiential Learning Activities

## V. Quest Learning Experiences

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### 1. Details of Experiential Learning Component

Students are expected to visit the Florida Museum of Natural History's "South Florida People & Environments" exhibit on their own time before Week 8 (while there they also might want to check out "Northwest Florida: Waterways & Wildlife!") This exhibit documents how the Calusa, the indigenous nation of south Florida, adapted to living along the coast. Students will use this experience to compare and contrast how past cultures used coastlines with contemporary coastal uses. We will discuss this trip in class Week 8 before the midterm.

During the term, students will read excerpts from the text *Rising: Dispatches from the New American Shore* that are complementary to weekly course material. This text provides narratives of coastal change

through a diverse set of perspectives. In class, students will use a variety of real data sets for quantitative analysis of physical processes and consider real adaptation plans for communities within Florida and across the United States.

## 2. Details of Self-Reflection Component

Over the course, students will reflect on their perceptions of sea level rise and how it impacts their daily lives, as well as the lives of others around them. Through guided prompts, students are encouraged to think about their relationship with the coastline and how sea level rise may alter that relationship. The experiential learning components, visiting the Florida Museum of Natural History to view past cultural use of SE Florida, as well as reading the text *Rising: Dispatches from the New American Shore* will engage students in viewing ties to the coastlines across different cultures and socio-economic backgrounds in ways that may be different than their own.

## VI. Required Policies

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### Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting

<https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

### University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code

(<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## **Counseling and Wellness Center**

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

## **The Writing Studio**

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <http://writing.ufl.edu/writing-studio/> or in 2215 Turlington Hall for one-on-one consultations and workshops.

## **In-Class Recordings**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.