FLORIDA ATLANTIC UNIVERSITY

NEW COURSE PROPOSAL
Undergraduate Programs

Department School of Public Administration

College D.F. Schmidt College of Arts and Letters

*(To obtain a course number, contact **erudolph@fau.edu**)*

UUPC Approval _____
UFS Approval _____
SCNS Submittal _____
Confirmed _____
Banner Posted _____
Catalog _____

Prefix PAD

Number 2013

(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)

Lab Code

Type of Course

Select One

Lecture

Course Title

Risk, Resilience, and Rising Seas (R3)

Credits *(Review Provost Memorandum)*

3

Effective Date *(TERM & YEAR)*

Spring 2022

Grading *(Select One Option)*

Regular (●)

Pass/Fail ( )

Sat/UnSat ( )

Course Description *(Syllabus must be attached; Syllabus Checklist recommended; see Guidelines)*

This course will introduce students to how the rising seas may impact the risks that individuals and communities face. Emphasis will be placed on societal responses to climate change (i.e. government-sponsored retreat, relocation) and on individual responses (i.e. changes in consumption habits, real-estate decisions, and community organization). The course emphasizes issues of social vulnerability, diversity, equity, environmental justice, and societal resilience in Florida and other coastal communities.

Prerequisites, with minimum grade*

None

Corequisites

None

Registration Controls *(Major, College, Level)*

Default minimum passing grade is D-.** **Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course

WAC/Gordon Rule Course

( ) **Yes** (●) **No**

WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines.

Intellectual Foundations Program (General Education) Requirement *(Select One Option)*

Society/Human Behavior

General Education criteria must be indicated in the syllabus and approval attached to the proposal. See GE Guidelines.

Minimum qualifications to teach course

Master's Level in Public Administration/Public Policy

Faculty Contact/Email/Phone

Alka Sapat, asapat@fau.edu; 561-297-0443

List/Attach comments from departments affected by new course

Approved by / ***Date***

Department Chair: Alka Sapat	4/20/2021
College Curriculum Chair:	9.2.21
College Dean:	9-7-2021
UUPC Chair:	
Undergraduate Studies Dean:	
UFS President:	
Provost:	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

Florida Atlantic University
Dorothy F. Smith College of Arts & Letters
School of Public Administration

PAD 2013: Risk, Resilience, and Rising Seas (R^3)
3 credits
Course Term
Class Location and day/time (and/or Online)
Instructor Contact Info (Will include: name, office hours, phone number and email address)
Will include TA information

Course Description and Purpose

This course will introduce students to the social and policy consequences of rising seas. Attention will be devoted to the impacts of sea-level rise on coastal communities and how existing individual and government responses address these problems. The focus will be on how rising seas may impact the risks that individuals and communities face. Emphasis will be placed on how these risks affect societal (i.e. government-sponsored retreat, relocation) and individual behavior (i.e. changes in consumption habits, real-estate decisions, and community organization). Both will be assessed considering their relation to issues of social vulnerability, diversity, equity, environmental justice, and societal resilience. The course will center on cases from Florida, but will also draw insights from other cases in the coastal United States and other parts of the world. This comparative component will highlight how impacts from sea level rise are manifested differently in other socioeconomic, cultural, and institutional contexts.

The purpose of the course is fourfold: (i) to highlight the importance of coordinated actions at multiple scales when responding to environmental crises and sea-level rise; (ii) to develop critical thinking skills applied to social and individual responses to climate crises; (iii) to incorporate notions of justice in ethics in coastal and climate policy, and (iv) to highlight the intrinsically social, policy, and political nature of environmental crises.

Course Objectives/learning outcomes:
Thematic Cluster – Climate change: This class will fit well into the Climate Change Thematic Cluster for the Intellectual Foundations Program as it includes discussion of the impacts of climate change on sea-level rise and adaptation and mitigation actions taken, among other societal responses to deal with climate change.

Learning outcome #1: describe patterns of human behavior.
Readings and lectures will rely heavily on real-life cases of individual and or societal responses to sea level rise, to introduce students to the multiple, diverse, and opposing responses to sea level rise, the role of policies in heightening or decreasing the impacts of sea level rise, and how those impacts may be distributed in a disproportionate manner across different communities. This learning outcome will be assessed through weekly discussion posts, two exams, and a final project. Discussion posts prompts and exam questions will be aimed at aimed at distinguishing societal from individual responses to sea-level rise crises in the United States. A specific rubric will be developed for the final project that will include a component of how the students manage to showcase human responses (either individual or societal responses) in their short film.

Learning outcome #2: describe how political, social, cultural, or economic institutions influence human behavior and how humans influence these institutions.
Learning outcome 2 will be taught through case studies in the classrooms and through the participation of guest speakers who will be members of government agencies involved with community resilience nad sea level rise adaptation policies at the local, county, or state level. This learning outcome will be assessed via weekly discussion posts with prompts designed to apply concepts learned in class to real-life examples, exams, and the final project. Exams will include both open-ended, multiple-choice, and true-false questions on the role of institutions in shaping societal and human behavior. A specific rubric will be developed for the final project that will include a component of how the students manage to showcase human responses (either individual or societal responses) in their short film.

Learning outcome #3: apply appropriate disciplinary methods and/or theories to the analysis of social, cultural, psychological, ethical, political, technological, or economic issues or problems.
This outcome will be achieved through in-class discussions and through a group-activity requiring students to develop a short video connecting research studies and class concepts on the effects of sea-level rise on societies and individuals, as well as potential approaches to address those problems. It will also be taught through case studies in the classrooms and using specialized readings on the effects of sea level rise and sea level rise adaptation policies on disadvantaged communities. Guest speakers involved in climate justice initiatives in the area will be invited as well. This learning outcome will be assessed via weekly scenario-based discussion posts where students will have to identify how sea level rise and the responses to it may affected disadvantages communities, as well as mechanisms to mitigate those effects. Exams will include both open-ended, multiple-choice, and true-false questions on the role of institutions in shaping societal and human behavior. A specific rubric will be developed for the final project that will include a component of how the students manage to showcase human responses (either individual or societal responses) in their short film.

Pre- or Co-requisite: There are no pre- or co-requisites for this class.
Required Text and Readings

- (R) Rush, Elizabeth. (2019) *Rising: Dispatches from the New American Shore* (1st Edition). Milkweed Editions: Minneapolis, MN.
- (H) Hine, Albert, Don P. Chambers, Tonya D. Clayton, Mark R. Hafen, and Gary T. Mitchum. (2016). *Sea Level Rise in Florida: Science, Impacts, and Options.* University Press of Florida: Gainesville, FL.
- (C) Chassignet, E. P., Jones, J. W., Misra, V., & Obeysekera, J. (Eds.). (2017). *Florida's climate: Changes, variations, & impacts*. Gainesville, FL: Florida Climate Institute. https://doi.org/10.17125/fci2017. Chapters available for free here: https://floridaclimateinstitute.org/resources/florida-climate-book

Additional readings will be provided via Canvas.
Supplemental Readings (if applicable)

Course Evaluation Method (breakdown of assignments/tests/exams/etc.)

- **Discussion Posts (12; only 10 count towards Final Grade):**
  Guidelines for Discussion Board postings: The first post will serve as your original post in reply to the topic and questions posed and must be at least 400-500 words in length. It must be posted no later than midnight on Thursday, in order to allow sufficient time for other students to respond. The remaining two posts are to be responses to other students' posts. These must be at least 100 words in length and must contribute to the conversation through supportive addition or critique. When the responses are of the latter, they must argue the issue, never the author. Your first submission should be made **by Thursday midnight**. Your second submission should be a reply/comment to at least **two** posts by your fellow registered students (you are encouraged to make more replies as well) and should be made by Sunday night of that week. The discussion will end by **Sunday night** (11:59 pm) of that week. Each weekly discussion board posting accounts for 20 points. A grading rubric will be provided.

- **Exams:** There will be two mid-term exams during the semester and one final exam. The final exam will be cumulative and test students on the learning outcomes for this class.
- **"*Sea Level Rise in my community*" assignment**: This will be a group assignment (2-3 students). Groups will develop, film, and edit a Short Film (under 3 minutes), discussing an aspect of SLR discussed in class and highlighting how it applies to your community. Grading Rubric will be provided. Students & Faculty will select best submission, which will be shared via FAU's (or at least via FAU SPA's) social media, with the students' approval.

Course Assessment and Grading Schedule:

Item		Points	%
Orientation Quiz & APA Video and Quiz		50	5
Discussion Board Postings	10 @20 points each	200	50
Mid-Term Exams	2 @150 points each	300	20
Final Exam		100	10
SLR Group Assignment		150	15
TOTAL		**800**	**100%**

Grading Scale

Grades will be based on the following point ranges:

A .....93 - 100 %	C .....73 - 76.9 %
A-.....90 - 92.9 %	C-.....70 - 72.9 %
B+.....87 - 89.9 %	D+.....67 - 69.9 %
B .....83 - 86.9 %	D .....63 - 66.9 %
B-.....80 - 82.9 %	D-.....60 - 62.9 %
C+.....77 - 79.9 %	F .....00 - 59.9 %

Policy on Make Ups/Late/Incompletes:

Assignments are due on the dates indicated or agreed to, unless there is an emergency. Evidence of emergencies that need to be documented, which should be provided to the instructor before or very shortly after any absence or submission of late work. Fairness among students would be in question, if some students were allowed to submit work late, while others have worked very hard to make sure their work was on time. This course also requires students to keep up with the material; tardiness in material submitted would make it very difficult to catch up. If you will be absent from class, you are still responsible for submitting your assignments. Email them to me before the start of class. An absence will not be considered "excused" without supporting written documentation.

Classroom Etiquette Policy:

Electronic Devices: Cell phone ringers must be turned off in the classroom.

Netiquette: Due to the casual communication common in the online environment, students are sometimes tempted to relax their grammar, spelling, and/or professionalism; however, remember you are now in a college

level course. Such communication is not appropriate here. Maintain your professionalism at all times. Also, please note that in the online environment you do not have the advantage of voice inflection or gestures. As a result, using sarcasm, only capital letters, or other styles that might work in conversation can come across very negative online, so this form of communication should not be used.

Communication

Email: Students are required to maintain active e-mail accounts throughout the term. Please use your FAU email only when emailing me. ***Except for Saturdays, Sundays and holidays, or when I am out of town, I will generally respond to messages within 24 hours.*** Such messages should only be used to communicate personal or confidential matters; otherwise, use the FAQ discussion board. Please do not use the messages tab in the course site. I would prefer you email me directly for personal or confidential matters at asapat@fau.edu.

Attendance Policy:
Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center:
Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

Disability Statement:
In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity Policy
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the

Code of Academic Integrity in the University Regulations at *http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf*.

Course Schedule

	Course Calendar		
Week	**Topic**	**Reading**	**Assignments**
1	Introduction Why rising seas?	* (R) pg 1-15 *Ostrom, Elinor. (2010). A General Framework for Analyzing Sustainability of Social-Ecological Systems, Science, Science 325, 419 * Nicholls, R. J., & Cazenave, A. (2010). Sea-level rise and its impact on coastal zones. science, 328(5985), 1517-1520.	Discussion Post #1
2	The science behind rising seas (Part 1)	* Dusto, A. (2014), Reading between the tides: 200 years of measuring global sea level *(H) CH1: Sea Level Has Always Been Changing *(C) CH19: Sea Level Rise. (link). * [MAYBE] Williams, S. Jeffres. (2013). Sea-Level Rise Implications for Coastal Regions. Journal of Coastal Research.	Discussion Post #2
3	The science behind rising seas (Part 2)	*(C) CH19: Sea Level Rise. (link). * Bamber, J. L., Oppenheimer, M., Kopp, R. E., Aspinall, W. P., & Cooke, R. M. (2019). Ice sheet contributions to future sea-level rise from structured expert judgment. Proceedings of the National Academy of Sciences, 116(23), 11195-11200. * Sweet et al., (NOAA Report) Ch 1, 5 and 6 (potentially only 1 and 6)	Discussion Post #3
4	How is the sea rising today? And in the future?	*Church, J. A., & White, N. J. (2011). Sea-level rise from the late 19th to the early 21st century. Surveys in Geophysics, 32(4-5), 585-602. *(H) CH2: Observing Modern-Day Sea Level Rise and Predicting the Future	Discussion Post #4
5	**Mid-Term Exam 1**		

6	Rising Seas and the natural environment	*(R) pg 47-69 *(H) CH4: Responding to Sea Level Rise and Its Impacts *Leatherman, S. P. (1983). Barrier dynamics and landward migration with Holocene sea-level rise. Nature, 301(5899), 415-417. *Webb, A. P., & Kench, P. S. (2010). The dynamic response of reef islands to sea-level rise: Evidence from multi-decadal analysis of island change in the Central Pacific. Global and Planetary Change, 72(3), 234-246. *Kirwan, M. L., Temmerman, S., Skeehan, E. E., Guntenspergen, G. R., & Fagherazzi, S. (2016). Overestimation of marsh vulnerability to sea level rise. Nature Climate Change, 6(3), 253-260. *Daniels et al. (1993). "Sea-level rise: Destruction of threatened and endangered species habitat in South Carolina."	Discussion Post #5
7	Rising Seas and the human environment	*Maldonado, J. K., et al. (2013). "The impact of climate change on tribal communities in the US: displacement, relocation, and human rights." Climatic Change (3): 601. *Aune, K. T., et al. (2020). "A spatial analysis of climate gentrification in Orleans Parish, Louisiana post-Hurricane Katrina." Environmental Research 185: 109384. *	Discussion Post #6
8	Rising Seas and the built environment	*(C) CH 11 (link) * (R) pg 133-135 * Allen et al. (2019). "Linking Water Infrastructure, Public Health, and Sea Level Rise: Integrated Assessment of Flood Resilience in Coastal Cities." *Public Works Management & Policy*, 24(1): 110-139. * Hummel et al. (2018). "Sea Level Rise Impacts on Wastewater Treatment Systems Along the U.S. Coasts." *Earth's Future,* 6(4): 622-633. * Shirazi et al. (2019). "Increased operational costs of electricity generation in the Delaware River and Estuary from salinity increases due to sea-level rise and a deepened channel." *Journal of Environmental Management,* 244: 228-234. *Bloetscher, F., Hoermann, S., & Berry, L. (2017). Adaptation of Florida's urban infrastructure to climate change. *Florida's Climate: Changes, Variations, & Impacts*.	Discussion Post #7
9	Rising Seas and the individual	*Guest speaker from FAU Center for Urban and Environmental Solutions (CUES) to talk Virtual Reality Scenarios, real estate and SLR* Focus will be on sea -level rise and vulnerable populations including public health and access. *(R) pg 93-97 * (R) pg 137-161	Discussion Post #8

		*De Koning, K. and T. Filatova (2020). "Repetitive floods intensify outmigration and climate gentrification in coastal cities." Environmental Research Letters 15(3): 034008.	
10	**Mid-Term Exam 2**		
11	Sea Level Rise in the coastal United States	*Williams, S. Jeffres. (2013). "Sea-Level Rise Implications for Coastal Regions." *Journal of Coastal Research, SI 63:184-196.* *Pilkey, Orrin H., and Keith C. Pilkey. (2019). *Sea Level Rise: A Slow Tsunami on America's Shores.* CHAPTER 9 Coastal Catastrophes: Cities on the Brink (pp. 95 – 120)	*Short Film Script due
12	Sea Level Rise in Florida (Part I)	*(H) CH3: Changing Before our Eyes: Natural Consequences of Sea level Rise in Florida * (R) pg 71-92	Discussion Post #9
13	Sea Level Rise in Florida (Part II)	* (R) pg 133-161 *Jesse M Keenan et al. (2018). "Climate gentrification: from theory to empiricism in Miami-Dade County, Florida" Environ. Res. Lett. 13 054001 *Savitch, Hank V. et al. (2020). Protecting South Florida: A Discussion of Sea Level Rise, Property, and Regional Planning. FAU CUES: Boca Raton, FL.	Discussion Post #10
14	Sea Level Rise in Florida: the case of South Florida	Guest speaker from the Southeast Florida Climate Change Compact (every year we could have a representative from each of the counties: Broward, PBC, Miami-Dade, Martin) *Meness, Sydney, and Jessica Grannis. (2017). *Lessons in Regional Resilience: The Southeast Florida Regional Climate Change Compact.* Case Studies in Regional Collaboration. Georgetown Climate Center: Washington, DC.	Discussion Post #11
15	Sea Level Rise in the Global South	*Pernetta, John C. (1992). "Impacts of climate change and sea-level rise on small island states." *Global Environmental Change,* 2(1): 19-31. *Blankespoor et al. (2014). "Sea-Level Rise and Coastal Wetlands." *Ambio,* 43(8): 996-1005. *Janin, Hunt. (2012). *Rising Sea Levels: An Introduction to Cause and Impact.* CHAPTER 9: Cities and Counties of the Indian Ocean Basin (pp. 91-99).	Discussion Post #12

16	What to do?	Solutions to public policy challenges of Sea-level Rise *(R) pg 206-251 *(H) CH4: Responding to Sea Level Rise and Its Impacts	**Short Film due**
17	**READING Days**		
18	**Final Exam**		