

Earth and Environment Graduate Seminar

Course numbers:

ISC 5151 Earth/Environment Graduate Seminar

ISC 6152 Earth/Environment Advanced Graduate Seminar

EVR 6950 Graduate Seminar (Environmental Studies)

Fall 2019

Room: WC-130

Class period: Friday, 3:00 – 4:15 pm

Instructor: Professor Michael Sukop (<mailto:sukopm@fiu.edu>)

Office hours: By appointment

Course Description

This course consists of a weekly seminar series with emphasis on Earth and environmental research, science education, and policy- and ethics-related issues. Visiting speakers span a range of disciplinary expertise and career stages, and each seminar presentation will be followed by critical discussion during the class period. Students will have the opportunity to engage with invited speakers and will be expected to assist with coordination of at least one speaker's visit to FIU. All students will give a short presentation on their own research or professional experiences toward the end of the semester.

Course Objectives

This course has four main objectives:

1. To expose graduate students to current research in earth science and environmental studies by leading professionals
2. To facilitate opportunities for networking for graduate students with leading professionals from South Florida and elsewhere
3. To develop graduate students' skills in critical discussion and evaluation
4. To hone oral presentation skills by providing experience in delivery of a brief presentation on thesis or dissertation research, or a professional project.

Learning Outcomes

Students will develop an awareness and appreciation for current research in earth sciences and environmental studies. Students will gain experience in critical discussion and evaluation, and in presentation of research or project findings.

Grading Scale

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: <60

Plus grades (e.g., B⁺) will be issued in special circumstances at the discretion of the professor for grades on the cusp.

Assignments and Performance Measures

A total of 100 points are available to be earned toward the final semester grade.

- (1) Attendance: All students are expected to attend all seminars. Absences will be granted only in special circumstances, and should be pre-arranged with the professor. In emergency situations, all efforts should be made to communicate with the professor soon after, and written justification may be requested. Students will be asked to complete a make-up assignment for any course periods missed. (10 points)
- (2) Critical discussion and seminar evaluation: Each student will produce a weekly presentation evaluation, write a paragraph on the content, and submit 2-3 critical questions about the seminar no later than Monday following the seminar by filling out the form [here](#). You will be provided an index card prior to the seminar to assist you in recalling your questions. (20 points)
- (3) Professional networking and coordination: Each student will be responsible for coordination of the visit for one speaker during the semester; students will work in groups of 1, 2, or 3. This task includes scheduling meetings for the visiting speaker with faculty and students on campus, organizing lunch for graduate students, preparing the announcement of the seminar to be distributed at FIU during the week of the seminar, and introducing the speaker. Students will also help with hosting of the departmental social following the seminar. A task list for coordination is below. (20 points)
- (4) Presentation: Each student will give a 5-minute “lightning talk” at the end of the semester. Students can discuss plans or preliminary findings from thesis or dissertation research, or can provide a summary of another professional experience or project. Each student should submit a title and abstract for the presentation by October 4, 2019 by email to the professor (20 points for abstract). Abstracts should be 300 words, and prepared similarly to an abstract for a professional scientific meeting in the student’s discipline. Student presentations are scheduled for November 16 or November 15, 2019, or December 6 (30 points for presentation). Presentations will be graded according to a rubric and based on delivery, clarity, content, and overall quality. (50 points total)

Task List for Seminar / Speaker Coordination:

- Prepare the announcement for the seminar using the E&E template. Print and post around E&E offices and labs on the Monday before the seminar. Circulate via listservs on the Monday before the seminar, with a reminder on the morning of the seminar.
- Liaise with the speaker for his/her arrival to campus. Act as the guide and point person for the invited speaker throughout the day. Attend the grad student lunch and social.
- Prepare a sign-up document and organize meetings with students and faculty for the seminar speaker during the day of the seminar.

- Organize the graduate student lunch for 12:30 – 2:00 on the day of the seminar with the speaker. Identify the list of graduate students to attend, and make a reservation for delivered food or a campus restaurant.
- Coordinate the departmental social following the seminar, including advance purchase of food and beverages, and assistance with set-up / clean-up. Up to \$25 can be reimbursed upon presentation of receipt for refreshments purchased for the social.

Scheduled Speakers and Topics – Fall 2019

Date	Topic	Speaker	Responsible Students
August 30	Cancelled due to Hurricane Dorian		
September 6	A LUNAR LEGACY: Deeply stimulating investigative memories SIX MANNED USA APOLLO, & THREE UNMANNED USSR SAMPLE-RETURN MISSIONS	Professor Stephen E. Haggerty Earth & Environment Florida International University	Melinda Paduani, Jonathan Rodemann
September 13	Crustal Boudins, Gondwanan Rifting, and Himalayan metamorphism	Neptune Srimal Earth & Environment Florida International University	Angelica Moncada, Julian Alwakeel
September 20	GSA, CERF, and FSA Warm-up Talks:	Faculty and students Earth & Environment Florida International University	Jessica Dominguez (seminar and social only)
	Coastal Groundwater Salinity and the Water Table	Dr. Michael Sukop	
	Making Sense of Methodologies and Theoretical Frameworks in Geoscience Education Research: Social Network Analysis	Dr. Kathleen Quardokus	
	Meeting in Middle: Resource Tracking of Freshwater Prey Subsidies by an Estuarine Consumer, Common Snook in the Florida Everglades	Jordan Massie	

	Projections of 2069 Water Table and Seawater Intrusion in Miami Florida Using the United States Geological Survey's Urban Miami-Dade Model	Martina Rogers	
	Examining the Effects of Contaminants to South Florida Bonefish: a Spatial Approach	Nicholas Castillo	
	Climatology of Tropical Cyclone Rainfall Derived from TRMM/GPM Data	Oscar Guzman	
	Frag and Tag: Investigating how Seagrass Fragmentation and Loss affect the Movement and Trophic Ecology of Recreational Sportfish	Jonathan Rodemann	
September 27	To Middle Earth and Back	Dean Lyon Founder and CEO of Splinter Studios	Anna Fache (seminar and social only)
October 4	Let's Go Green with Dream in Green!	Barbara Martinez-Guerrero, Executive Director, Dream in Green, Inc.	Nicholas Castillo, Campo, Munguia
October 11	Growing large-scale botanical Research through citizen science	Carl Lewis, Director, Fairchild Tropical Garden	Ellen Garcia, Samuel Kent, Valeria Espina
October 18	Building Economic Resilience in the 305 and Beyond	Jim Murley, Chief Resilience Officer, Miami-Dade County	Nadia Seeteram, Meenakshi Jerath, Nilima Luba
October 25	Everglades and Dry Tortugas Invasive Species	Jennifer Ketterlin, Research Coordinator, UF - Fort Lauderdale Research and Education Center	Andrew Mullin, Marcel Bozas, Anchal Singh
November 1	Using sound to gain ecological insights from aquatic ecosystems	Marta D'Elia, Postdoctoral Associate, FIU Institute of Water and Environment	Jordan Massie, Stephanie Munguia

November 8	2D hydraulic modeling to build flood resilient cities	Noemi Gonzalez, Senior Hydraulic Engineer, FLO-2D Software, Inc.	Francisco Pena, Oscar Guzman, Miguel Valencia
November 15	Implementing Florida's Hemp Program: The new frontier for our state's agricultural industry and economy	Holly Bell, Director of Cannabis, Florida Department of Agriculture and Consumer Services	Jazmin Toy, Adrian Figueroa, Daniela Daniele
November 22	Student Presentations		
	Multidisciplinary Assessment of Urban Design through a Resiliency Framework: Miami Beach Case Study	Jazmin Toy Locke-Rodriguez	
	Seed Dispersal as a Tool for Pine Rockland Conservation	Adrian Figueroa	
	Generating Alternatives: The Possible Energy Transitions for France and Germany after the Paris Accord	Anna Fache	
	An Interdisciplinary Approach to Understanding SLR Adaptation Pathways in Miami- Dade County, Florida	Nadia Seeteram	
	Tree islands interspecies average occurrence compared to mean monthly water level	Marcel Bozas	
	Abundance of surficial and buried plastic debris in mangrove forests of Biscayne Bay, FL	Melinda Paduani	
	Wiser Use: Coastal Wetland Management in the Caribbean	Steffanie Munguia	
	Ecosystem-based Disaster Risk Reduction: an opportunity for urban resilience	Meenakshi Jerath	
	Preliminary Roof Runoff Water Quality Reslts for the Miami Portion of the "Off-the -Roof" Citizen Science Project	Miguel Valencia	
Shifting Towards Sustainable and Resilient Behaviors: An	Stephanie C. Campo		

	Educational Framework for More Balanced Systems		
November 29	Thanksgiving	HOLIDAY / no class	
December 6	Student Presentations		
	Conservation of South Florida Orchid Mycorrhiza	Ellen Garcia	
	The effects of spatial resolution and building geometry in coupled 2D hydraulic algorithms for urban flood modeling	Francisco Pena	
	Bioplastic production from fruits and vegetable waste with a focus on improving its mechanical properties	Anchal Singh	
	Exploring the Potential of Endophytes and Medicinal Plants as Sources of Antimicrobials to Control Citrus Greening	Jessica Dominguez	
	Water Quality Variability of the St. Lucie River-Estuary Basin, Florida	Angelica Moncada	
	How do weather conditions change the transport of greenhouse gases across an urban environment?	Valeria Espina	
	Understanding the Impacts by Hurricane Maria and its Secondary Disasters	Nilima Islam Luba	
	South Miami-Dade Agricultural Nursery Area Effects on Water Quality	Samuel Kent	
		Julian Alwakeel	
	Urban River as Social-Ecological Systems: An Examination of History and Ecology of the Miami River	Daniela B Daniele	

	Native Endangered and Critically Imperiled Orchid Species	Drew Mullin	
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