

GEOG 5720/6720; HONS 3087
Panama Study Abroad Program
“Culture, Changing Environmental and Climate”
Spring 2018; 3 Semester Hours

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Office Hours: By appointment only

Required Text Book and Materials:

Reading material will be either uploaded on Canvas or printed and handed over in class.

COURSE CONTENT

Students will acquire basic knowledge and skills on the science of environmental management, sustainability, urban living and culture of Panama. They will get a chance to compare and contrast different cultures and living conditions, human vulnerability and analyze historical trends in climatic variability in the Republic of Panama. This course is intended to give students a general understanding of the potential impacts of climate change on Panama's environmental and human resources. Through a mix of lectures, hands-on laboratory exercises and field trips, students will explore direct and indirect effects of the variable climate on natural resources, Panama's environmental and human interactions.

Throughout the course, students will learn to use technologies and to apply cutting-edge research methodologies for the analysis and monitoring of natural and human systems affected by climate change. The acquired knowledge and interests developed by the students will lead to the implementation of their research capstone in GEOG 5720/6720.

The course will be instructed in English.

OBJECTIVES

At the end of the study abroad program, the student will:

1. Develop an in-depth knowledge of the various components of environment of the Republic of Panama and Panama Canal Watershed and tie all elements together to get a broader understanding of environmental sustainability, present and future.
2. Recognize and critically analyze the concepts influencing water, ecology, forest, urban management, human habitats in Panama and apply them to surrounding scenarios.
3. Realize and access the problems of Panama on a local to global scale and identify ways of adaptation and mitigation which are self-sustaining.
4. Apply knowledge gained from lectures, field trips and the invited presentations on sustainability and cities, to identify problems, find solutions and check out suitability in particular regions.
5. Become confident and ready to take up challenges, skills which students will learn through class discussions, participation in team activities, interaction within class and outside too. Understand the benefits of a study abroad program.
6. Learn new ways of doing research and in-depth study of topics related to climate change and environmental management.

GRADE STRUCTURE

Throughout the course, students will carry out class assignments (50%) based on lectures, in-class practices and field experiences. There will also be a final capstone project worth 50% of the final grade.

Grade Distribution

Percentage	Final Grade
90–100	A
80–89	B
70–79	C
60–69	D
< 60	F
Failure due to attendance	FA

Please note. Attendance at all program activities is mandatory and is crucial to student success in this course. Students will be expected to contribute to discussions, be involved in excursions and hands-on exercises, be punctual and cooperative, and respect instructors, guides and supervisors. Any unethical or unacceptable behavior will be reported to the Academic Honor Council with the recommendation for a failing course grade.

AU Policy on Academic Integrity: Students guilty of cheating will receive at a minimum an F for the course and a notation on their transcript that they have been found guilty of academic dishonesty. If you are in doubt about appropriate citation of the work of others in your own papers or projects, you should consult with the instructor in advance and should read carefully the regulations published in THE TIGER CUB.

Accommodations for Students with Disabilities: Students with a disability who need accommodation must get a memo from the Program for Students with Disabilities. An accommodation memo and instructor verification form can be obtained for this purpose from the Program for Students with Disabilities, 1244 Haley Center (334-844-2096).

Class Behavior: Students are expected to treat each other with courtesy. Positive attitude and cooperation is encouraged amongst classmates. Refer to this link to have a better idea:
<https://sites.auburn.edu/admin/universypolicies/Policies/PolicyonClassroomBehavior.pdf>

COURSE ACTIVITIES:

Class lectures will be in the form of PowerPoint lectures and seminar style. Students must be thorough with the class readings, as active participation is required in class. The class will meet once every two weeks. Materials will be provided to the students through Canvas. The class will be in Panama during spring break. That one week there will be many lectures and field trips on which students will be given assignments.

Class capstone project will be done in groups of 2 (undergrads) or individually (for graduates). The project will consist of the development of a presentation on a topic that involves any of the processes of environmental and human interaction with climate change in Panama. This project will help the students to relate and apply what they learnt during the semester especially the week at the Water Center for the Humid Tropics of Latin America and the Caribbean, CATHALAC

(for its abbreviation in Spanish). Details will be discussed in class and a written guideline will be provided.

Class assignments will be spread out over the semester. Assignments have to be done individually or as teamwork, as specified in class by the instructor. While discussion and group activity is encouraged, the submitted assignments should be the student's individual work. The assignments will consist of short question/answers or brief write-ups based on papers read and lectures.

Pre-departure online lectures and readings:

- Introduction to CATHALAC and Program Overview
- Readings and discussions on environment, management techniques, climate change
- Local, regional and global perspectives on cultures and sustainability
- Benefits of Study Abroad – Dr. Uttiyo Roy Chowdhury, Director, Study Abroad, Clemson University

Provisional Calendar –2018 Research & Study Abroad Program ** Subject to changes

PROGRAM AGENDA

Day 1 – Saturday March 10th, 2018: AU Group Arrival to Panama City

Tocumen International Airport Pick-up time: More information will be provided as departure date from AU approaches.

Day 2 – Sunday March 11th, 2018: Panama City Tour

Time	Activity
08:30 a.m.	Bus Pick-up; Group meets at CATHALAC
09:00 a.m.	Hiking the Ancon Hill
11:00 a.m.	Panama Canal Miraflores Visiting Center
01:00 p.m.	Lunch @ Rest. El Trapiche
03:00 p.m.	Walk in Casco Antiguo (Old City)
06:00 p.m.	Returning to City of Knowledge

Day 3 – Monday March 12th, 2018: Water and Climate Change

Time	Session	Activity	Lecturer/Responsible
07:00 a.m.	Breakfast @ the Dorm		
08:00 a.m.	Climate Change Overview	Presentation	Joel Pérez, CATHALAC
09:00 a.m.	Coffee Break		
09:15 a.m.	Watersheds of Panama: Elements, Management, Issues	Presentation	Valentina Opolenko, CATHALAC
11:00 a.m.	Urbanization and extreme weather events	Presentation /discussion	Chandana Mitra, AU
12:30 p.m.	Lunch Break		
02:00 p.m.	Uses of Water: Consumption - Miraflores Water Treatment Plant	Field Trip	ACP Staff, CATHALAC Coordination Staff
05:00 p.m.	Open Session: Data processing using Google Earth and GIS Application	Lab; students work on their own	Chandana Mitra, AU and CATHALAC Staff

Day 4 – Tuesday March 13th, 2016: Panama Canal Authority Day

Time	Session	Activity	Lecturer/Responsible
07:00 a.m.	Breakfast @ the Dorm		
08:00 a.m.	-Current weather situation in the Panama Canal Watershed -Current hydrological conditions and elevations of the reservoir in the Panama Canal Watershed	Presentation	ACP
09:00 a.m.	Panama Canal Watershed Flood Control Program	Presentation	ACP
10:00 a.m.	Land Use Planning - Policy	Lecture	ACP
12:00 p.m.	Lunch Break		
02:00 p.m.	Geography of the Panama Canal Watershed	Lecture	Octavio Smith, CATHALAC
03:00 p.m.	Open Session: GIS Application and Data processing	Lab; students work on their own	Chandana Mitra, AU and CATHALAC Staff

Day 5 – Wednesday March 14th, 2016: Panama Canal Economic Incentive Program: Fieldtrip

Time	Session	Activity	Lecturer/Responsible
07:00 a.m.	Breakfast @ the Dorm		
08:00 a.m.	ACP Environmental Management: Ruta Verde, Economic Incentive Program	Presentation	ACP
09:00 a.m.	ACP Economic Incentive Project: Coffee Route	Field Trip	CATHALAC and ACP Staff
12:00 p.m.	Lunch @ the local community (Ciri Grande)		
03:00p.m.	Return to CATHALAC – Break (students can go to the dorm and change)		

Day 6 – Thursday March 15th, 2016: Risk and Disaster Management in the Panama Canal Watershed: Fieldtrip to Guayabalito and Santa Rosa communities

Time	Session	Activity	Lecturer/Responsible
06:45 a.m.	Breakfast @ the Dorm		
07:40 a.m.	Transport leaving to Pedro Miguel – Meeting point at CATHALAC		CATHALAC Coordination Staff
08:00 a.m.	Welcome to participants at Pedro Miguel Locks	Talk to the group	ACP Staff
08:30 a.m.	Boat trip to Las Raíces Hydrological Station		ACP Staff
10:30 a.m.	Boat trip to Guayabalito and Santa Rosa communities		ACP Staff
11:45 a.m.	Lunch @ the local site		
12:30 p.m.	Returning from Santa Rosa to Pedro Miguel		
01:30 p.m.	Arriving at Pedro Miguel		
02:00 p.m.	Return to CATHALAC - Break		
03:30 p.m.	Project discussion and Data Processing	Lab	Chandana AU and CATHALAC Staff

Day 7 – Friday March 16th, 2016: Social Vulnerability in the Panama Canal Watershed

Time	Session	Activity	Lecturer/Responsible
07:00 a.m.	Breakfast @ the Dorm		
08:00 a.m.	Departure from CATHALAC		
09:00 a.m.	Sightseeing at the Madem Dam	Trekking	ACD and CATHALAC Staff
10:30 a.m.	Urban expansion in the PC Watershed	Group Discussion	ACD and CATHALAC Staff
12:00 p.m.	Lunch @ site		
01:00 p.m.	Tour around urban, commercial, and industrial areas of the Chilibre-Chilibrillo Subwatershed	Class work	ACD and CATHALAC Staff
02:30 p.m.	Local Stakeholders: Advisory Board of Chilibre-Chilibrillo	Meeting	ACD and CATHALAC Staff
04:00 p.m.	Return to CATHALAC Open Session: Data processing using Google Earth and GIS Application	Lab; students work on their own	Chandana Mitra, AU and CATHALAC Staff

Day 8 – Saturday March 17th, 2018 Recreation/Cultural Day

- Community ecotourism project in CEASPA
- San Lorenzo Fort

Day 9 – Sunday March 18th, 2018: Departure from Panama City

Transport to the Airport. More information will be provided as departure date approaches.

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