

**THE HONORS COLLEGE AT FLORIDA INTERNATIONAL UNIVERSITY**

**AMAZON PROGRAM (PERU)**

**ENVIRONMENT, PEOPLE AND OPPORTUNITY ON THE LAST FRONTIER  
IDH 4007**

**Spring 2010 SYLLABUS – GL 161**

**Instructors:**

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**GENERAL INFORMATION**

This is an innovative and interdisciplinary Honors College course that culminates with a four-week field element in the Amazon rainforest of Peru during the Summer B session. During the first part of spring semester, students are introduced to various aspects of the Amazon, ranging from its geological and ecological history, its colonization and exploitation by Native Americans, its exploration by European “discoverers”, its biodiversity, and the current challenges facing the Amazon environment and its people. As the semester continues, additional focus is given to research and project design and techniques, as well as the ecological and cultural processes and considerations which help to define the natural and human components of the Amazon. During the latter part of the semester, students develop project proposals to be implemented during the Summer B study-abroad component of the course in Peru.

During the trajectory of the course, we will explore the origins of the Amazon (geological, biological, human), the mythos of the Amazon (the Amazon romanticized, as well as portrayed by the media, Hollywood, and in books), the reality of the Amazon today (peoples, environmental challenges, economic opportunities) and the ethos of the Amazon (what is our responsibility to the Amazon, are there spiritual connections to the Amazon?)

The required research proposal and project can relate to many fields of inquiry, whether directly related to the students major or not. Course faculty will provide guidance in helping each student to develop a project that is feasible, appropriate, well designed and of interest to the student. From 28 June-25 July 2010 students and faculty spend 4 weeks in the upper Amazon of Peru (in the vicinity of the city of Iquitos), where students will carry out their projects as well as help with other student’s projects and participate in faculty-led group projects.

**RECOMMENDED BACKGROUND READING**

*A Neotropical Companion (2<sup>nd</sup> Edition)*. 1997. Kricher, J. Princeton Univ. Press. ISBN 0-691-04433-3. Assigned reading will include handouts from this text, but we recommend that students purchase their own copy as a general and useful reference to the natural setting of the Amazon – it can be cheaply obtained from Amazon.com, E-Bay, or local book retailers.

## READINGS & MATERIALS

In addition to handouts given in class (to be kept in a course binder issued to each student), students will select two of the four following broad categories (whichever are of the most interest to them), read the suggested materials included under the selected categories or substitute appropriate materials and sources found by the student, and summarize the findings in a 1000-1500 word paper (for one area of interest), and in a 5-10 minute PowerPoint presentation to the class (for the second area of interest). Students are encouraged to seek out additional sources of information and submit them for approval for use in their paper or PowerPoint presentation.

- Areas of Interest:

- Ethnographic and Biological Research Methods

- Mann, Charles C. Amazonia (chapter from *1491* – pp. 315-349). *1491*. 2005. Vintage Books. ISBN: 13: 978-1-4000-3205-1.
- Smith, N. J. H. *The Enchanted Amazon Rain Forest: Stories from a Vanishing World*. 1996. Univ. Press of Florida.
- Davis, Wade. *One River: Explorations and Discoveries in the Amazon Rain Forest*. 1996. Touchstone (Simon & Schuster), NY. ISBN 0-684-83496-0 (Pbk).
- Additional readings

- Health, Sanitation & Appropriate Technologies

- *New Guinea Tapeworms and Jewish Grandmothers*. 1987. 224 pp. Desowitz, Robert S. W. Norton & Co. ISBN 0-393-30426-4.
- Nawaz, H. and D. Graham. Peru (book chapter). Pp. 567-574 in *Pocket Guide to Cultural Health Assessment, 4<sup>th</sup> Edition*. 2008. Carolyn D'Avanzo, Ed. Mosby Elsevier Publishers. ISBN-10: 0-323-04834-X
- <http://www.ecosanres.org/> - Ecological Sanitation Research website; numerous on-line fact-sheets and publications available, particularly regarding composting toilets and sanitary disposal issues related to human waste. Funded by the Swedish International Development Agency.
- [http://www.appropedia.org/Biogas\\_start\\_up](http://www.appropedia.org/Biogas_start_up) and [http://www.appropedia.org/Making\\_Biogas\\_from\\_Human\\_Waste](http://www.appropedia.org/Making_Biogas_from_Human_Waste) Appropedia sites focused on biogas production and treatment of human and other waste materials.
- <http://www.aidg.org/technologies.htm> - Appropriate Infrastructure Development Group – discusses a wide range of technologies appropriate for rural communities in developing countries – from water filtration to solar power.

- Biology, Biodiversity & Conservation

- Mann, Charles C. Amazonia (chapter from *1491* – pp. 315-349). *1491*. 2005. Vintage Books. ISBN: 13: 978-1-4000-3205-1.
- Goulding, Michael; Smith, N; and Mahar, D. *Floods of Fortune: Ecology and Economy along the Amazon*. 1996. Columbia University Press. Pp. 193.
- Kricher, John. Deforestation and Conservation (chapter 14 [pp. 334-376] in) *A Neotropical Companion*. 1997. Princeton University Press. ISBN: 0-691-04433-3.
- Smith, N. J. H. *The Enchanted Amazon Rain Forest: Stories from a Vanishing World*. 1996. Univ. Press of Florida.

- Additional readings.
- Culture, Language & History – contemporary reality in the context of the recent past
  - Mann, Charles C. Amazonia (chapter from *1491* – pp. 315-349). *1491*. 2005. Vintage Books. ISBN: 13: 978-1-4000-3205-1.
  - Smith, Anthony. Julio Arana (chapter from *Explorers of the Amazon* – pp. 285-324). 1990. Viking. ISBN: 0-670-813109
  - Gheerbrant, Alain. *The Amazon: Past, Present, and Future*. 1992 (translated from French). Pp. 191. ISBN 0-8109-2860-4.
  - Davis, Wade. Among the Waorani. Chapter nine (pp. 270-295) in: *One River: Explorations and Discoveries in the Amazon Rain Forest*. 1996.
  - Additional readings.

### **COURSE SCHEDULE: Spring 2010**

**Course Times:** Classes are projected to meet **Tuesdays** from **3:30-5:20**

**Class Structure:** Classes will begin with a reading quiz (as per the syllabus) or with handing in assignments/homework which are always due at the start of class. Classes will end with a short “round-table”, with each student asked what is one thing you learned in class today?”, or “what is one question you have relative to the class material today?”. We will encourage course participants to think about how to integrate the varied topics covered in the course. For instance, “how does biological context influence culture?”, or “what role does biodiversity play in agricultural systems in the Amazon?”

**5 Jan 2010:** 1: Introduction to the Course. Introduction of professors and students, overview of what the course will cover and how it is organized. Brief review of student projects and accomplishments in the Amazon in 2008 and 2009.

**Class Activity:** Amazon mapping project (students working in groups of 3). Hand out binders after the first drop date. Sheet of paper with deadlines, etc. Explorers club deadlines? Look at list of possible granting agencies. Do mapping exercise – have students comment on their drawings/maps.

**Important Note:** fund-raising meetings and activities are to be held OUTSIDE of class. Set date/time/place for first fund-raising meeting.

**Assignments for following class:**

- Media & Entertainment portrayal of the Amazon – bring 5 references that show popular portrayals of the Amazon (newspaper articles, films, books, etc. (no websites please). For one of the references, include a 200-250 word summary describing how that reference reinforces or shatters perceptions and stereotypes of the Amazon.
- Poll 10 people (note whether they are family, friends, fellow students, strangers): What is the first thing that pops into your head when you think of the Amazon?
- Fill out provided student information form and bring to next class.

**Readings for following class:**

- Voltaire. *Candide*. 1759. Ch. 14-18 (available on-line at: <http://www.literature.org/authors/voltaire/candide/>)

- Roosevelt, Theodore. Ch. VII: Across Nhambiquara Land, pp. 208-248 in *Through the Brazilian Wilderness*. 2000. Cooper Square Press, NY. (Originally published 1914).

**12 Jan 2010:** 2: What are popular perceptions of the Amazon today and in the past?

Reading quiz.

**Hand out course binders.**

- Students provide a brief synthesis of the “Amazon perceptions” of the people they polled.
- View clips from
  - “Survivor: Amazon”
  - The survivor guy – segment from the Amazon
  - Anaconda, Arachnophobia, other movies

How are perceptions of the Amazon rooted in reality or myth? How are popular perceptions exploited for political, social, entertainment or even conservation gain or fame? Can you believe everything you read or see? How to distinguish truth from fiction or exaggeration.

**Assignment for following class:** Bring photocopy, or send scan of passport photo page.

**Readings for following class:**

- Kricher: Ch 1: Tropical Climates and Ecosystems (pp.3-20)
- Goulding, Michael: Flooded Forests of the Amazon. *Scientific American*, March 1993.

**19 Jan 2010:** 3: Overview of the Natural Environment of the Amazon

Reading quiz.

What will it be like to spend 4 weeks there and to carry out projects in the Amazon? Powerpoint/video clips of the Madre Selva Biological Station, the site that we will be housed at in the Amazon. What physical, geological and climatic factors combine to make the Amazon the world’s largest rainforest area?

**Assignment for following class:**

- Do a search on what is being done in the Amazon in terms of research/conservation/ethnography/education/health – find something that is of interest to you, develop a short list of web references on the topic or related topics – 5-10 sources. Summarize.

**Readings for next class:**

- Mann, Charles C. *A View from Above* (chapter from *1491* – pp. 3-30). *1491*. 2005. Vintage Books. ISBN: 13: 978-1-4000-3205-1.
- Kricher, John: *A Neotropical Companion*, 2<sup>nd</sup> Ed. Ch 7: Living off the land in the tropics. Pp 169-188.

**26 Jan 2010:** Pre-History of the Amazon.

Reading quiz.

How did people and the Amazon interact during the time before European discovery and what were the consequences of that interaction? How did people interact with the environment? What was their quality of life and health? How is the indigenous experience reflected in art and literature (both pre- and post-European contact?)

**Assignment for next class:**

- Go to CE6, check out the funding links for potential sources of grant/scholarship money at [studyabroadfunding.org](http://studyabroadfunding.org) - a searchable database (put in “Peru”)
- Sign up to meet with Prof. Riach and/or Prof. Graham before 9 February to discuss potential projects and trip finances. (Sign-up sheet at class)

**Readings for next class:**

- Smith, Anthony. Francisco de Orellana (chapter from *Explorers of the Amazon* – pp. 39-89). 1990. Viking. ISBN: 0-670-813109
- Select one of the “Areas of Interest” listed at the start of the syllabus. Check out the readings (or find appropriate alternative readings), browse related materials posted on the course CE6 site. Prepare a 4-5 minute oral report on what you find of particular interest – what attracts you to a particular topic or set of readings? What more would you like to find out? Prepare a list of additional relevant materials that you may have found. If you wish to work in pairs on this assignment, you may with a resultant presentation time of 7-8 minutes. **(This assignment is for 9 Feb, but start now).**

**2 Feb 2010: Post-European History of the Amazon**

Reading quiz.

How did Western exploration and the colonial period impact the Amazon? What were the changes in both human populations (distribution and composition) and in the environment (extractive activities, environmental perturbation). How is the Amazon reflected in “European” consciousness in Western art and literature?

**Assignment for next class:**

- Either select one chapter from Explorers of the Amazon (other than “Orellana” or “Araña”) and turn in a 500-600 word reaction/analysis at the beginning of the subsequent class,
- Or, select a Western author, artist, entertainer, political or other public figure from the colonial period (ie., roughly between 1500 and 1900 and turn in a 500-600 word reaction/analysis of how that particular person presented the Amazon in his or her work, or otherwise influenced how Western culture viewed the Amazon. Be sure to include references (books, papers, website URL’s, etc. [Feel free to select a person who may have worked in a language other than English!])
- If you prefer to do a short PowerPoint presentation (2-3 minutes maximum, that is an alternative to the short paper.

**Reading for next class:**

- No readings assigned

**9 Feb 2010: Amazon Research & Techniques.**

No quiz. Area of Interest reports.

What does research or a service project entail? What are effective research/project techniques? How can one develop a reasonable and innovative research or project proposal that can be carried out in the time allotted? What are effective methods of soliciting information from local people? Mock interviews. What are the characteristics of good research/projects? What is the value of a research log, and

how do you keep it? What information should be included? How can you benefit long-term from undergraduate research – how can you best present your work in your CV or in future job/graduate school interviews?

**Assignment for next class:** Keep a log of your activities for the following four days (Wednesday through Saturday).

**Assignment for class on 25 February (yes, we want you to start on this early!):**

- If you don't already have a defined project idea, develop a list of 5 research/project ideas (related or unrelated) that you feel you might be interested in. Select one of those research areas, and find 10 resources (papers, books, websites (maximum of 6 websites), news articles, etc.) pertinent to that topic.
- If you have already selected a fairly well defined project topic, find 10 pertinent resources. Be prepared to present your favorite project idea to the class (2-5 minutes maximum) on 24 February (class after next).

**Readings for next class:**

- Class handouts

**16 Feb 2010: Film Screening - *Fitzcarraldo*** (Director: Werner Herzog)

Reading quiz, turn in log of activities.

**Assignment for next class:**

- Write a 1000 word reaction paper (double spaced) to the film *Fitzcarraldo*. How did the film challenge your images or preconceptions of the Amazon? What questions did it raise? Select a “theme” from the movie and develop your observations and arguments around that theme.
- Continue work on independent project ideas for presentation in the next class. These will be presented and discussed in class next week.

**Readings for next class:** No readings.

**23 Feb 2010: Independent project idea reports**

No quiz, reaction paper to Fitzcarraldo due.

Short presentations of project ideas in class, feedback and suggestions from your professors and from the class as a whole.

**Assignment for next class:**

- Complete the NIH on-line ethics course. Protecting Human Subject Research Participants: <http://phrp.nihtraining.com/users/login.php>, print out the certificate of completion and bring a copy to class.

**Readings for next class:**

- **And Hey, Let's be Careful out There.** Pp. 377-388 in *A Neotropical Companion*, 2<sup>nd</sup> Edition.
- <http://www.travelhealth.com> – Travel Health Information Service website
- <http://www.cdc.gov/travel> - Center for Disease Control website
- <http://www.intmed.mcw.edu/travel.html> - Medical College of Wisconsin International Travelers Clinic website

**2 Mar 2010: Health and Safety for student participants in the Amazon**

Reading quiz.

A discussion of health and safety issues in the Amazon. PowerPoint presentation on the basics of staying safe and healthy during your study abroad experience. What should you worry about? What don't you need to worry about? How can you intelligently read travel health websites and determine what is real and what is "cya" language for the lawyers!

**Assignment for next class:**

- Watch "The Linguists" on-line – accessible at NPR (may take several minutes to load – be patient!, Running time is 90 minutes. URL = <http://www.npr.org/templates/player/mediaPlayer.html?action=2&t=1&list=false&id=100874724&m=100961282>
- Make an annotated list of 5-10 things that you learned from watching "The Linguists" (can also be things that you now see in a new light, or never really thought of previously).

**Readings for next class:**

- Short article on the Yagua Indians.

**Deadline for next class:**

- Financial Aid Applications are due in Financial Aid Office at least 3 months prior to departure.

**9 Mar 2010: Sustainable development and cultural considerations.**

No quiz, "The Linguists" assignment due.

What have people been doing to promote sustainable development and better health in the Amazon. What are the characteristics of successful and failed projects? Is there a role for microlending, alternative economies, etc.? What have been the successes of FIU students in these areas in the Amazon?

**Assignment for next class:** Refine project ideas, develop list of useful references, materials that might be needed, etc. Search on-line for similar applications or projects anywhere in the world. How might the experiences of other help you to make your own project more successful?

**Reading for next class:**

- Handouts on biodiversity

**12-21 March: FIU Spring Break – NO CLASSES**

**23 Mar 2010: Biodiversity and Natural History of the Amazon.**

Reading quiz, turn in project references.

Overview of the plants, animals and ecology of the Amazon. Role of biodiversity in local diets, use of medicinal plants, building materials, craft and arts, etc.

Overall contribution of biodiversity to the quality of life and possibilities for sustainable development. Show clips from student projects.

**Assignment for next class:**

- Make an appointment to meet with one or both professors outside of class prior to 13 April.
- Begin work on project proposals (to be handed in 13 April in finalized form)

**Readings for next class:**

- Handouts – TBA. Readings on cultural knowledge and intellectual property rights and ethics

- Kricher. A Neotropical Companion, 2<sup>nd</sup> Ed. - Ch. 14 (Deforestation and Conservation, pp. 334-368)

**30 Mar 2010: Current Issues facing the Amazon. What will a Future Amazon Look Like?**

Reading quiz.

Climate change, globalization, indigenous land tenure, logging, carbon trading, cultural assimilation, economic and political conflicts, conservation issues.

**Assignment for next class: (working singly or in pairs)**

- Pick a current topic of interest to you, find information on the web or elsewhere and prepare a 3-5 minute presentation to the class on your topic. Feel free to include a one-page handout if you deem it appropriate (could include references, timelines, summary of important points, etc.).

**Readings for next class:**

- No readings

**6 Apr 2010: The Future of the Amazon:**

Reading quiz and “current” issue presentations.

Class wrap-up and travel preparation,

**Assignment for next class:**

- Finalized project proposals

**Readings for next class:**

- No readings

**13 Apr 2010: Office of Education Abroad – Last class period** and Mandatory pre-departure session of 60-90 minutes. No quiz. Final project proposals due. This session will cover issues related to medical care, culture, insurance, ethics and behavior with a representative from the OEA office.

**16 April:** FIU Spring Semester classes end – Thursday

**21-26 April:** FIU final exam week – no classes

Optional field trip to Miami MetroZoo Amazon exhibit. Date to be determined in coordination with zoo personnel. Casual unstructured interviews with zoo visitors for bonus points.

**29 April:** Grades Due

**28 June:** Departure for Peru – Amazon Study Abroad Course

**25 July:** Return to Miami from Peru – Amazon Study Abroad Course

**SUMMARY OF MATERIAL TO BE COVERED (not necessarily in order)**

**The Physical Amazon**

1. What is the Amazon –physical boundaries, how it is defined, in what countries is it located.
2. Origins of the Amazon – overview events that led to the physical origins of the Amazon basin.

### 3. Climate of the Amazon –current climate patterns of the Amazon

#### **Biodiversity and Ecology of the Amazon**

1. How the Amazon “functions” ecologically
2. Origins of the Amazon flora, fauna, and biodiversity in general
3. What are the primary groups of organisms that dominate the Amazon
4. How do we define or measure biodiversity? Why is it important?

#### **Humans and the Amazon**

1. Overview of the history of human occupation of the Amazon.
2. Comparison of pre-historic and modern patterns of land use in the Amazon.
3. Influence of pre-European peoples on the Amazonian landscape.
4. Diversity of pre-European peoples – culture, language, resource use.
5. Influence of European colonization on the Amazon.
6. Exploration of the Amazon by the West – primary figures and their accomplishments and contributions.
7. Exploitation of the Amazon by the West – successes, failures, and ecological impacts.
8. Current issues in management and use of resources from the Amazon.
9. Myths and legends of the Amazon at the time of discovery through the modern era.

#### **The Future of the Amazon**

1. Current ecological/social/political pressures on the Amazon environment
2. Proposed solutions to “saving” or “sustainably using” the Amazon
3. Examples of successful/failed projects.
4. Deforestation and the future of Amazon biodiversity.

### **USEFUL RESOURCES FOR THE COURSE**

#### **Books:**

- Plants, People and Culture. 1997. Balick, Michael J. and Paul Cox.
- Medicinal Resources of the Tropical Forest. 1995. Balick, Michael J. et al.
- Flooded Forests of the Amazon. 1993. Goulding, M. Scientific American, March 1993.
- Explorers of the Amazon. 1990. Smith, Anthony. Univ. of Chicago Press.
- The Amazon: Past, Present and Future. 1992. Gheerbrant, Alain. Harry N. Abrams, Inc., Publishers.
- A Neotropical Companion, 2<sup>nd</sup> Ed. 1997. Kricher, John. Princeton Univ. Press.
- The Amazon River Forest: A Natural History of Plants, Animals and People. 1999. Smith, Nigel J. H. Oxford Univ. Press.
- Floods of Fortune: Ecology and Economy along the Amazon. 1996. Goulding, Michael, et. al. Columbia Univ. Press.
- The Amazon: Limnology and Landscape Ecology. 1984. Edited by Sioli, H. Dr. W. Junk Publishers.
- Exploration of the Valley of the Amazon: 1851-1852. 2000. Herndon, W L. Grove Press.
- One River: Explorations and Discoveries in the Amazon Rain Forest. 1996. Davis, W. Simon and Schuster.
- Through the Brazilian Wilderness. 2000. Roosevelt, T. Cooper Square Press.
- Entangled Edens: Visions of the Amazon. 2002. Slater, C. Univ. of California Press.

**Independent projects and proposals** – These are projects developed by 1 or 2 students for implementation during the field component (summer) in Peru. Projects may be related to biology and the environment, sociology, anthropology, international relations, art, business, medicine, geography, education and many other fields. With appropriate justification, a maximum of 3 students may collaborate on an independent project. Each project must have a project proposal completed during the Spring semester. Proposals will include background information/literature survey, justification of the project, a rough schedule for completion of the field components of the project, a description of how data will be collected and any special materials that might be needed for data collection, and a description of how the results of the project will be analyzed and presented. Course instructors will work closely with students during the preparation of independent projects.

## **GRADING & COURSE EVALUATIONS**

Grading will be computed on the basis of 100 points. For full points, students will need to be present in class for reading quizzes (at the beginning of class periods), as well as complete all assignments. Bonus points and optional assignments will allow diligent students to make up points if they are obliged to miss a class period. A breakdown of points given for quizzes and assignments will be provided at the beginning of the semester so that students can keep track of their standing in the course.

**Grades** are based on the following percentages (equivalent to numbers of points)

<b>A</b> = 94-100	<b>A-</b> = 90-93	<b>B+</b> = 87-89
<b>B</b> = 83-86	<b>B-</b> = 80-82	<b>C+</b> = 77-79
<b>C</b> = 73-76	<b>C-</b> = 70-72	<b>D+</b> = 67-69
<b>D</b> = 63-66	<b>D-</b> = 60-62	<b>F</b> = 0-59