Bonaire CIEE

2009-2010

Select courses as follows (17 credits in total)

1. **Required Independent Research Project in Marine Biology and Ecology**
2. **Required Coral Reef Ecology**
3. **Required Cultural and Environmental History of Bonaire**
4. **Required Tropical Marine Conservation Biology**
5. **Required Fundamentals of Scientific Diving Research Methods**

Bonaire CIEE Courses and IU Equivalencies

NOTE: this **tentative** list includes fall AND spring semester courses and is subject to change

NOTE: undistributed 100-level (-OS 100) courses have not yet been evaluated by a department on campus, so they do not have an IU course number. You may present the course description/syllabus to the appropriate departments so they can assign an IU course number before you go abroad. Some departments may require you to present the course materials for their review after you complete the program.

You may leave the course as -OS 100 and count the hours as elective credit toward graduation, or in some cases these courses may be used to fulfill distribution (AH, SH) requirements. This list is tentative and includes fall AND spring semester courses

The CIEE Web site has the most up-to-date list of course offerings.
(CIEE does not list IU equivalencies)
http://ciee.org/program_search/program_detail.aspx?page=2&sec=1&program_id=1739&type=part

CIEE Course Title	IU Equivalent
Independent Research Project in Marine Biology and Ecology (4 cr.)	BIOL-L 490
Coral Reef Ecology (4 cr.)	BIOL-OS 300*
Cultural and Environmental History of Bonaire (2 cr.)	SPEA-OS 100
Tropical Marine Conservation Biology (3 cr.)	BIOL-OS 300**
Advanced Scuba (1 cr.)	HPER-OS 100
Marine Ecology Field Research Methods (3 cr.)	HPER-OS 100

***Meets an upper level lecture and lab requirement**
****Meets an upper level lab *only* (not lecture) requirement**

Examples of Independent Research Projects

Listed below are the expertise of certain faculty members who will be working with the program and students and possible student projects that might be undertaken under his/her supervision. **The purpose of providing this is just to serve as informative information.**

Faculty Member:
Expertise: He has published in and has academic expertise in the areas of ecotourism, adventure tourism, and the human dimensions of natural resource management.

Potential student projects:

1. Past and current use statistics on number of ecotourists and their activities on the island of Bonaire.

2. *Projected trend analysis of ecotourism activity for Bonaire within the next five-ten years.*

3. *Inventory of environmental and cultural impacts to Bonaire from ecotourist-related activity*.

4. *A cross-cultural and cross-boundary analysis of ecotourism impacts and trends of other locations similar to Bonaire.*

5. *Understanding the Bonaire tourism experience: Categorizing attributes and experiences that characterize a high quality tourism experience on Bonaire.*

Faculty Member:
Expertise: Research and interpretation of submerged cultural and biological resources emphasizing park development and sustainable use. Legislative strategies for management of Marine Protected Areas.

Potential student projects:

1. *Archaeology of prehistoric and historic Bonaire*

2. *Underwater Archaeology of Bonaire's submerged cultural resources*

3. *Development and management of Bonaire's National Park*

4. *Interpretation of underwater cultural and biological resources*

5. *Sustainable use of underwater resources*

6. *Maritime History of Bonaire and the Caribbean*

7. *Underwater documentation and use of mooring buoys for site protection*

Faculty Member:
Expertise: His doctoral research was on the reproductive biology of birds. He has taught both non-majors and majors courses on the biology of birds and has been studying birds for more than 35 years, both throughout the U.S. as well as in Central and South America.

Potential student projects:

1. *Fishing efficiency of Brown Boobies and/or Royal Terns*.

2. *Habitat division by migrant/wintering shorebirds.*

3. *Assortative mating or association by Sandwich (Cayenne) Terns*?

4. *Feeding ecology of Common Ground-Doves and/or Black-faced Grassquits*.

5. *Division of resources by the 3 species of nectarivorous species*.

6. *Song repertoire size of Tropical Mockingbirds*.

Faculty Member:
Expertise: She has a strong personal and academic interest in avian conservation. She has been teaching ornithology (both majors and non-majors courses) for 12 years, and has been birding extensively both locally and abroad (both Central and South America) for 15 years.

Potential student projects:

1. *Conservation projects with Greater (Caribbean) Flamingo* -- assessing the habitat requirements and impact of human interactions

2. *Impact of introduced species on native bird species*

3. *Distribution & status assessment of parakeets & parrots*

4. *Promoting bird-watching on the island*

5. *Habitat use of neotropical migrants*

Faculty Member:
Expertise: Evolution, development and demise of Caribbean reef ecosystems from Cretaceous greenhouse through Pleistocene and modern icehouse climate states (100 million years ago to present).

Potential student projects:

1. *Carbonate sedimentologic variation from leeward to windward sites on Bonaire*

2. *Analysis of mixed carbonate-siliclastic environments: sources, process of transport and modes of deposition*

3. *Investigation of fossil bivalves on Bonaire and changes in environments through the last 100 million years*

4. *Modern reef biodiversity studies linked into regional and global databases*

Faculty Member:
Expertise: He is an aquatic ecologist whose research interests are in water quality assessment and problem diagnosis, and in watershed processes.

Potential student projects:

1. *point and nonpoint source pollution from the land and its effects on the coastal environment*

2. *ecological sustainability of the coral reef environment*.

Faculty Member:
Expertise: Botany, natural history, evolution, tropical biodiversity, interactions among organisms, microbial physiology.

1. *Baseline documentation of biological features of dive sites*

2. *Assessing extent of coral disease*

3. *Documenting marine succession on different introduced substrates*

4. *Documentation and assessment of algal or cyanobacterial overgrowth*

5. *Runoff and eutrophication of reef habitat*

6. *Invasive organisms on Bonaire*

7. *Assessment of conch populations*

8. *Effects of grazing on native flora*

9. *Development and water use problems*

Updated 02/2009

10. *Stress responses of plants to drought*

11. *Phenology of flowering in selected plant species on Bonaire*