Florida Institute of Technology

ADDING A NEW COURSE TO THE CURRICULUM

This course is available for student registration only after the approval process has been completed.

SUBJECT BIO COURSE NO. 4604 CREDIT HOURS 3 TERM TO BE ADDED TO THE FILE Summer 2010

CLASS HOURS 45 LECTURE HOURS LAB HOURS CONTACT HOURS (CEU ONLY)

DEPARTMENT Biological Sciences SCHEDULE TYPE Field Projects

☐ COLLEGE OF AERONAUTICS-23 ☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS-25
☐ COLLEGE OF BUSINESS-24 ☐ COLLEGE OF SCIENCE-26
☐ COLLEGE OF ENGINEERING-01 ☐ UNIVERSITY COLLEGE EXTENDED STUDIES-27

COMPUTER TITLE Restricted to 25 characters, including spaces Field Biology/Galapagos

CATALOG TITLE Field Biology and Evolution of the Galapagos Islands

CATALOG DESCRIPTION OF COURSE Limited to 350 characters, including spaces

Field biology course in the Galapagos Islands. Emphasizes climate and evolution processes and patterns. Includes both terrestrial and marine investigations of the unique biota of the Islands. A field fee is required.

In addition, you may attach a course syllabus and/or more detailed description.

RESTRICTIONS ☒ Prerequisite BIO 3410 ☐ Corequisite Course Number

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ADDITIONAL RESTRICTION

(e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information

SUBJECT Alpha Prefix (e.g., CST) COURSE NO. (e.g., 1301)

APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.

Originator 6/29/09

Richard B. Arison 7/1/09

Department Head/Property Chair

Hamid K. Rand 7/11/09

Dean or Associate Dean

Catalog Director

REGISTRAR’S USE ONLY

SCACRSCE SCADTLC SCAFRQC SCABASE

SCARNES Operator Init Date

Catalog Director Date

Florida Institute of Technology - Office of the Registrar

150 West University Boulevard, Melbourne, FL 32901-6745 • 321-674-5114 • Fax 321-674-2827
Field Biology and Ecology/Galapagos Islands (summer 2010)

Instructors: Mark Bush and Richard Aronson (Biological Sciences)

A summer field course in the Galapagos Islands that emphasizes the climatic and evolutionary underpinning of modern ecological processes and patterns of this unique biota. Investigations will take place in both terrestrial and marine settings. Pre-requisite Bio 3410.

Provisional course number Bio 4904

Syllabus
The 10-day field component will be preceded by a week of intensive lecture activity. Lecture component (each topic is 1 hr).

Students will be expected to read pages 3-116 of the Beak of the Finch (J. Weiner) prior to the start of class.

1st Campus component
Day 1 am: 1) Geological and climatological setting
2) Darwin's discoveries and uncertainties
pm: 3) Ecology and endemism of tortoises and lizards
4) Identification of common fish
5) paper discussion

Day 2 am: 1) Climate change in the Eastern equatorial Pacific
2) Biogeography and ecology of Pacific corals
pm: 3) Darwin's finches adaptive radiation and response to climate change
4) Identification of common seabirds on the Galapagos
5) paper discussion

Day 3: am 1) Terrestrial biogeography of the islands: natural plant communities
2) Conservation of Galapagos ecosystems
pm 3) Elements of field botany
4) Identification of common plants
5) paper discussion

Day 4: am 1) Marine biogeography of the islands: corals
2) Marine biogeography of the islands: Fish
3) Nearshore survey techniques
4) Identification of corals
5) paper discussion

Day 5: am 1) Exam I
2) Notebook advice, departure briefing and organization
Field Component
Day 6-15 Travel to Galapagos for field studies to include on-site lecturing on natural history of assorted ecosystems on 3 islands, floral survey along elevational gradients, rockpool and nearshore invertebrate diversity studies, project work. Project work or readings will be assigned for each evening. A field notebook will be prepared by each student detailing daily activities and observations.

A typical day will be breakfast at 6 am, depart to field at 7 am. Conduct terrestrial surveys 8-noon, lunch, 1-2 pm prepare for evening discussion. 2-5 pm afternoon survey activity (terrestrial or marine). Dinner 7-8 pm. Evening discussion or night survey 8.30-9.30 pm.

2nd Campus component
Day 16 Study day
Day 17 Final Exam
Day 19 Hand in field notebook

Evaluation
Exam I 25%
Participation 25%
Final Exam 25%
Field notebook 25%

Readings (preliminary list)


Glynn et al. 1979 Coral Reef Growth in the Galapagos: Limitation by Sea Urchins. Science 203, 47-50


