Credit hours: 3

# BSC 2362 – Tropical Ecology: Galápagos Study Abroad Program

Instructor: Dr. Stephanie JW Palomino

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### **Academic Department:**

Dean: Dr. Natavia Middleton

Office Location: UP 337, Seminole Campus

Office Phone Number: 394-6995

Associate Dean: Dr. Stephen Andrasik

Office Location: SP/Gibbs, Bay Pines Campuses

Office Phone Number: (727) 341-4275

## **STUDY ABROAD APPLICATION REQUIREMENTS**

Approval for participation in the program is subject to the participant:

- being a college student with a high school diploma
- being in good academic standing at the time of application (cannot be on academic warning, probation or suspension)
- being enrolled for credit in an approved study abroad program course
- interviewing with program's lead faculty member
- being approved by the Center for International Programs-paying all deposits and fees according to the fee schedule

The program plan for this class (class meetings and activities, etc.) meets the requirement of 47 contact hours for the course.

### **Course Description:**

This course emphasizes field recognition and observation of ecological relationships of plants and animals of the New World tropics and associated habitats. Lectures will emphasize basic ecological concepts, such as the niche concept, symbiosis, competition, trophic structure, evolutionary relationships, co-evolution and predation, with field components that will emphasize identification of representative forms of life of various tropical ecosystems in a study country located within the Neotropics. Natural and artificial biological communities will be visited. This course may not be offered every session. Contact a Natural Science Program Director for availability and duration. 47 contact hours.

# **Course Content (Major Learning Outcomes):**

- 1. The student will understand the ecological and evolutionary forces that shape tropical ecosystems.
- 2. The student will demonstrate an understanding of common native plants and animals found in a neotropical country.
- 3. The student will understand the scientific methodology and research as it relates to the study of

tropical/related systems and organisms associated with them.

4. The student will understand the anthropogenic influences on tropical systems.

## **Course Objectives Stated in Performance Terms:**

- 1. The student will understand the ecological and evolutionary forces that shape tropical ecosystems by:
  - a. describing the abiotic factors that influence organisms and the adaptations necessary to tolerate various environmental conditions.
  - b. delineating biotic factors that determine the distribution and abundance of tropical plants and animals.
  - c. identifying selected tropical ecosystems and explaining how they are formed and maintained.
- 2. The student will demonstrate an understanding of common native plants and animals found in a neotropical country by:
  - a. describing the classification hierarchy for selected tropical species.
  - b. participating in field observations of typical tropical groups including:
    - (1) epiphytes such as orchids, bromeliads, ferns, palms and cacti.
    - (2) insects such as scarab beetles, pollinators and morpho butterflies.
    - (3) amphibians and reptiles such as tree frogs, poison dart frogs, boa constrictors and mimetic forms.
    - (4) birds such as toucans, parrots, flycatchers, and hummingbirds.
    - (5) mammals such as monkeys, bats, agoutis and coatis.
    - (6) native plant species such as Ceropia, Walking Palms, Strangler Figs, and various species of tropical plants.
  - c. observing population interactions including commensalism, predation, parasitism, competition, and mutualism.
- 3. The student will understand the scientific methodology and research as it relates to the study of tropical/related systems and organisms associated with them by:
  - a. preparing field notes.
  - b. assessing scientific information and writing a research paper.
  - c. conducting field observations, research, or analysis.
  - d. comparing disturbed and undisturbed habitats.
  - e. describing the impacts of agricultural systems
- 4. The student will understand the anthropogenic influences on tropical systems by:
  - a. observing altered sites within tropical systems in comparison to undisturbed sites.
  - b. measuring levels of diversity changes within and between sites in comparison to standard levels of expected diversity.
  - c. describing the effects of human encroachment on tropical systems.

#### **Criteria Performance Standard:**

Upon successful completion of the course the student will, with a minimum of 70% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

**Course Prerequisite or corequisite:** Prerequisites: ((ENC 0020 or ENC 0025) and (REA 0002 or REA 0017) and (MAT 0024 or MAT 0028)) or (EAP 1695 and (MAT 0024 or MAT 0028)) or appropriate scores on the SPC Placement Test and consent of the instructor, or Program Director approval.

## **Assignments and Grading:**

Teamwork/Participation: 25%

Quizzes: 25%

Pre-program Exam: 25%

Final Project: 25%

\*\*Assignments/assessments are due or to be taken on the date assigned. No late work will be accepted.

### **Teamwork/Participation:**

You are expected to work effectively, whether individually or in groups. You are to assign roles in a team prior to recording, collecting, analyzing, and sharing data. You will be assessed based on attendance, promptness, preparedness, individual and group engagement, and completion in all activities throughout this course. Activities can include classwork, homework, fieldwork, paper discussions, show and tells, etc.

#### Quizzes:

Quizzes will be completed online during our pre-program meeting weeks, and I will be giving oral quizzes where I ask questions, and you write your answers on a sheet of paper to submit in country. Quizzes may be a combination of short answer, multiple choice, and True/False. Content will come from pre-program lectures and paper discussions in country that will be relevant to content in the course. BSC3931 students will present a paper, and you will be taking notes and asking questions. It will be important to take and review notes during our pre-program and in-country activities prior to taking the quizzes.

#### **Pre-Program Exam:**

You will take one proctored exam online before our departure. The content will be covered during our pre-program meetings.

### **Final Project:**

Your final project will involve data collection, analysis, and creating a video-recorded PowerPoint presentation. You will submit your recorded presentation as a discussion assignment 7 days after we return and then you have the last 3 days for the other students to view and ask questions about each other's work.

Presentation components include the following:

Part 1: You are to characterize and identify trends in biodiversity based on background and current research, observations, data collection and analysis from Florida, Costa Rica and the Galápagos. You will consider latitude and geomorphology while utilizing specific field techniques regarding identification of species, habitat characterization and health of the ecosystem. Specific emphasis on analysis will include using the Simpson Diversity index.

Part 2: You are then to select one species you recorded in the field that interests you to research further. You will discuss their importance and role in the ecosystem, current impacts facing their existence, and any present and future restoration and conservation efforts.

## **Representative Textbooks:**

There is no required textbook for this course. All lecture material, ID books and guides, and other content will be provided to the student through MyCourses and in person. A 1-subject composition notebook is also required for notetaking. Please see the following <a href="Link">Link</a> if you want a waterproof notebook. There will be 3 Go-Pros utilized in the field for the projects, but a reliable camera is necessary to document all flora and fauna.

### **Final Grade**

89.5-100% = A 79.5-89.4% = B 69.5-79.4% = C 59.5-69.4% = D

#### Attendance:

0-59.4% = F

The college-wide attendance policy is included in the Syllabus Addendum (https://www.spcollege.edu/current-students/student-affairs/student-right-to-know/studentresponsibilities). The policy notes that each instructor is to exercise professional judgment and define "active participation" in class (and therefore "attendance") and publish that definition in each syllabus. For this class, in-country attendance is mandatory and will be used to determine active participation in the course. Assignments and/or quizzes will not be permitted to be taken late due to an absence. Tardiness will not be tolerated. We leave promptly at varying times and will leave without you; therefore, it will count as an unexcused absence and will result in a zero for day. More than one unexcused or excused absence in-country will result in a non-participating grade (WF) entered into PeopleSoft. To ensure you know the start time each day, you will be told the night before the time to meet the next morning, and make sure to check our group chat in WhatsApp. For our pre-program classes, you must be there on time and ready to take notes and participate in discussion. You are allowed to miss one pre-program lecture due to an excused absence. An excused absence is one that is verifiable with written documentation. You are still responsible for all material covered during class. If you have more than one absence for the pre-program lectures that are either excused or unexcused, you will be in violation of the attendance policy and a non-participating grade (WF) will be entered into PeopleSoft.

#### Classroom environment and behavior:

- 1. The college has an official policy on academic honesty and proper classroom behavior. If there are any questions, please refer to the brochure, "Academic Honesty and Student Behavior: Expectations of Students at SPC" (also available online). I take this subject very seriously and will not tolerate academic dishonesty or inappropriate/disruptive behavior in the classroom. College policy states that a first offense (cheating, plagiarism, etc.) is given a "zero" for the assignment with no possibility of replacing the score. In addition, on the first offense, a form is filed with the Academic Integrity Committee. This does not go onto the student's transcript, but should a second offense occur, the student is then subject to expulsion from school.
- 2. All electronic devices are to be turned off before the class starts. Use of these devices during all scheduled class activities is in violation of College Policy and subject to disciplinary action. During unscheduled classroom activities or in the vans, you are allowed to use your devices, unless we have a class discussion.
- 3. Be on time. If you are late, we <u>will</u> leave without you and it will count as an <u>unexcused absence</u>. You will receive a zero for that day. Please review the attendance policy as to not violate it.
- 4. This is a field course where every day you will be outside. The weather will be hot, buggy, and wet. You will be on your feet all day and you need to be in good, physical condition to be able to participate in the activities. We walk for many hours sometimes over rough terrain, snorkel and are on a raft for many hours. Be aware and agree to these conditions if you wish to participate in this course.

- 5. Field clothes are expected to be worn on all classroom relocations. This includes proper shoes, sunscreen, insect repellent, hats, appropriate swimwear. Points will be deducted for each activity that a student is not prepared for.
- 6. All participants must stay hydrated. You must bring a refillable water bottle with you (BPA free) and either purchase water at the grocery store or with tap water.
- 7. Since this is an environmental awareness course, please be mindful of your impact on the ecosystem. Put trash in its proper place and recycle when you can!!!! Points will be deducted if littering of trash or cigarette butts occurs.
- 8. You are representing SPC on every classroom relocation. You must be on your <u>best behavior</u> which includes language used (profanity), not talking while I, another student, or our guide is talking, respecting each other and everyone we come into contact with, wearing appropriate clothing and swimwear, staying with the group at all times, and abstaining from possession and/or consumption of any type of intoxicants between event departure and return times, and removing yourself from the company of anyone indulging in intoxicants. Violations will result in the following disciplinary action (but not limited to): receiving a zero in the course, returning immediately from Costa Rica at your own expense, and reimbursement to the college of funds expended on your behalf. (*In addition, you will be reported to your site Associate Provost for further disciplinary action.*)
- 9. Smoking is only allowed in designated areas and not during scheduled activities.

#### **Course Schedule:**

Course Dates: 5/13 to 6/19/2026 Pre-program class meetings:

Lecture: Wednesday (5/13), Thursday (5/14)

Optional Weekend Sampling Field Trip to Florida Keys Friday (5/15) – Sunday (5/17)

Data Analysis: Monday (5/18)

Student Presentations: Tuesday (5/19)

Exam (online): 5/20-5/22 Travel Dates: 5/26- 6/3, 2026

Post-program class meeting: Friday, 6/5

Final project submission: June 16th by 11:59 pm via MyCourses

### **Special Accommodations:**

If you anticipate requesting of the Learning Specialist an accommodation for a documented disability, it is important to notify the International Programs office as soon as possible that you plan to make a request. Please also make an appointment with the Learning Specialist on campus to make your request as soon as possible. The Learning Specialist can be reached at 791-2628 or 791-2710 (CL), 341-4758 (SP/G), 394-6108 (SE), 712-5789 (TS), or 341-4532 (AC).

The instructor reserves the right to make changes where necessary to the schedule and assignments. Changes will be announced in class and/or D2L. (Students need to check D2L regularly for course information and are responsible to note any changes.)

### **Packing List:**

- Mosquito repellent (Please see the <u>CDC link</u> on current precautions.)
- Passport (must be valid at least 6 months after travel end date)
- Snorkel gear (it will be provided but you may bring your own and you should have a mask and snorkel for our pre-program snorkel field days)
- Waterproof watch (not water resistant) if you want to take one
- Rain gear (poncho or jacket)
- Bathing suit/wet suit
- Beach towel
- Closed-toed shoes
- Sandals (for shower), water shoes
- Sunscreen (w/out oxybenzone)
- Sunglasses if you want
- Shirts (long and short sleeve)
- Pants (for hiking) and shorts
- Sleepwear
- Toiletries
- Hat/visor strongly encouraged
- Undergarments
- Long Socks
- Camera w/ charger if you want different from a phone with a camera
- Pencils/Pens (pencil works best on waterproof paper)
- Water bottle (reusable water bottle to not use plastic water bottles)
- Cell phone with charger
- Personal medication, including epi-pen, as needed.

### **Safety Precautions:**

In addition, specifics regarding safety in an unfamiliar environment are covered in participant orientation, including the Study Abroad Emergency Checklist. This checklist covers knowing where to go in emergencies (how to get there, transportation options), emergency contact information (home and local) and contact numbers (local 911 equivalent, embassy, police, hospital, etc.), back-up plans, special conditions, emergency kits, and cash reserves and alternatives. Closer to the time of travel, current safety conditions can be obtained from the State Department via the Internet. All participants are required to carry international health insurance that covers \$100,000 accident/sickness coverage, including evacuation and repatriation of remains that will be included in your program fees.

<sup>\*\*\*</sup>Please see SAA Itinerary for more information on excursions and info while in country.