.VĒRITAS
UNIVERSIDAD

CENTER FOR INTERNATIONAL PROGRAMS AND SUSTAINABILITY STUDIES

Full Internship for the Green Lab Biocenter
Total Contact Hours: 120 per month (30 hours per week)

Minimum internship assignment is 8 weeks.

Internship Code:	INTERN-8W	240 hours
	INTERN-12W	360 hours
	INTERN-16W	480 hours

Faculty mentors:
Isa Torrealba (Ph.D. Natural Sciences and Sustainability)
Helen Temple (Ph.D. Environmental Sociologist)
Amanda Calvo (Lic. Agriculture and Forestry)
Sebastián Hernandez (Ph.D. Marine Molecular Biology)
Francisco Gonzalez (Ph.D. Entomology)
Cesar Sánchez (Ph.D. Ornithology)
Mariano Barrantes (Lic. Wildlife management)
Juan Guillermo Chica (MBA Organic fibers for textiles)

PREREQUISITES
According to the specific internship assignment, students must be a biology, life sciences, environmental sciences, agriculture or related major. Students must be juniors or seniors. Although not completely required it is STRONGLY recommended that student have at least an intermediate level of spoken Spanish language proficiency.

DESCRIPTION
The internship opportunities at the Green Lab Biocenter are structured around general research, maintenance and monitoring of different projects. The tasks will be established according to each student's experience and interest in collaborating with some of the ongoing lines of research performed in the Biocenter. The student will acquire both scientific and social knowledge and experience by working in the field and being involved in some of our community based research projects. Although it isn't a requirement to be in a specialty area directly related to one of our faculty members, tasks and projects will be assigned according to the student's degree and experience.
In addition, many of the internship assignments and projects will require for the student to mobilize back and forth from San Jose to Guanacaste depending on the development of the project and tasks. Students might be involved in both field and laboratory tasks.

GENERAL OBJECTIVE
The students will learn about general environmental education, sustainable livelihoods, agroforestry, conservation and other sustainability topics key to the mission and vision of the Biocenter.

SPECIFIC LEARNING OUTCOMES

- Understand sustainability concept and implications
- Learn about current cases of applied sustainability on the field
- Apply theory to determine the possibilities for sustainability in the Biocenter
- Gain exposure to sustainability issues in Costa Rica and Central America through observation and study case analysis
- Evaluate sustainability from local, regional, and/or global scales
- Develop the ability to act toward creating a sustainable model
- Communicate effectively about the meanings of sustainability in your life

1. Understand general concepts, depending on the main areas of interest, such as: Sustainability by means of community focus, Marine Conservation Biology, Endangered Species, Agroecology
2. Learn about current approaches to address ~~ecological~~ key questions and into critical information for different sustainability approaches.
3. Develop scientific interest in answering aspects of the ~~natural history~~ sustainability production processes, like the principles of permaculture design.
4. To promote team work in practical activities carried out in field.
5. To encourage the student to develop critical thinking in designing research studies and to propose alternatives to unsustainable practices that impact conservation efforts and community development.

All our ongoing research projects require research assistance in several areas. For instance, students and/or interns will need to be involve with different activities in the field:

a) For Marine conservation projects:
    a. In-water activities to collect marine organisms
    b. Landing port activities to sampling fishes and elasmobranch
b) For forestry projects:
    a. Data base typing and processing of botanical and forestry species, marine organisms, reptiles, birds and mammals.
    b. Agricultural work
    c. Botanical species sample collection and data processing for national data base
    d. Farm animal caretaking and maintenance for energy generation, byproduct consumption (milk, cheese, butter).

c) For design and production projects:
    a. Fiber processing for textile experimentation and production

d) Biomolecular Laboratory activities in support of field research:
    a. Animal dissections and scientific drawing
    b. Processing tissues samples for DNA extraction

    c. Learning the Polymerase Chain Reaction (PCRs)
    d. Loading and running electrophoresis gels
    e. Analyzing genetic data and learning about bioinformatics software
    f. Processing research information and writing research articles
e) Other Biological small projects:
    a. Applied enthomology: Meliponae beekeeping and honey harvesting
    b. Applied ornithology
f) Community Outreach and environmental management.
    a. Environmental education initiatives
    b. English as a second language classes.

Students complete the work of the internship under the supervision of an on-site supervisor.

Students should report to their faculty supervisor on their activities from time to time during the semester.

Students should report any problems with their internship to their faculty supervisor immediately.

Internship students will be assigned a specific project development task according to their major and level of experience and will evaluated on the project assignment results.

Every two weeks, Internship students will participate in a meeting (meeting is also open to participating Service Learning students) where everyone shares their results and advances in their research. This is a good opportunity to become familiarized with everyone's research and learn more about our activities.

In addition, the students participating in an Internship need to do a final presentation of their commitment to their tasks at the Biocenter, which will be evaluated based on knowledge assimilation (SL students may voluntarily assist Interns in their presentation).

The report will generally contain the following elements:

- The description of the activities undertaken
- The discussion of the methods used along the internship
- An analysis of how what was learned during the internship relates to the application of a sustainability topic
- An evaluation of the internship as an educational experience in sustainability.

Students interested in maintaining communication and scientific collaboration with part of our team, will be encouraged to apply for future funding (i.e. Fulbright, Gillman, etc.) and to participate in international science conferences to present the results of their research as part of a long term research project.