Syllabus ICDS

"SUSTAINABILITY PRACTICES & FOOD SECURITY IN RURAL COSTA RICA"

A. Course description

a) Introduction

The course entitled "Sustainability Practices and Food Security in rural Costa Rica" is designed to provide students a hands-on opportunity to learn about food security, sustainable farming techniques, and ecology in Costa Rica.

b) Location

Finca Agroecológica La Flor lies in the highlands of Costa Rica's Central Valley, above the Orosí Valley, near the towns of La Flor and Paraíso de Cartago. Its grounds include ten hectares of secondary forest, botanical and medicinal gardens, domestic animal husbandry (goats, chicken, horses), and organic agriculture.

c) Faculty

The course will be led by an ICDS professor specialized in environmental issues, with the support of La Flor's own specialists and staff.

d) Description

The international Center for Development Studies (ICDS) is working with the educational farm "Finca Agroecológica La Flor" to offer a beginner course focusing on sustainable farming, water management, organic agriculture, and food security.

Students will live at Finca La Flor for the duration of the course, where they will share with the farm's community members their work, meals, accommodations and other activities. They will participate in all farming and living activities, and learn about organic agriculture, permaculture, water management, and other aspects of sustainable development, including income diversification, animal husbandry, medicinal plants, sustainable tourism, and healthy cooking among others.

The course involves a total of ninety (85) contact hours, to be dedicated to the study of relevant concepts of water management and organic agriculture, forest conservation and management, as well as the corresponding field work in the farm. During this time, students will become familiar with various aspects of water use for agriculture and animal husbandry, as well as techniques for farming without agrochemicals to avoid land degradation and

pollution. They will learn about medicinal and botanical gardens, permaculture and animal husbandry, healthy food and bioconstruction, among others.

Students will be allowed to contribute to the farm's goals, not only through their field work but also by way of individual projects for farm improvement, involving research and analysis of best policies, practices and techniques for the sustainable development of the farming community of La Flor.

e) Course objectives /Learning outcomes

- Acquire knowledge of concepts such as food security, permaculture, organic agriculture, low-impact animal husbandry, ecotourism, forest conservation and management, medicinal plants, clean energy, water management, recycling, sustainable development and environmental education
- Demonstrate practical understanding of sustainable development and agricultural production principles, as well as their application in a rural setting
- Enjoy hands-on experience of sustainable tropical agriculture
- Develop ability to research, design, and implement improvements to existing sustainable practices

B. Course contents

Week/Session	Topic(s)
Week 1 – Day 1	Introduction, course description, tour of the farm, and individual project assignment
Week 1 – Day 2	Definitions (agricultural systems, sustainability, agroecology, food security, permaculture, etc.)
Week 1 – Day 3	History and evolution of agriculture
Week 1 – Day 4	Ecosystem services, primary production, soil conservation, integrated pest management, and other sustainable farming issues
Week 1 – Day 5	Forest conservation and management
Week 1 – Day 6	Sustainable water management
Week 1 – Day 7	Field visit
Week 2 – Day 1	The case of Costa Rica: experiences in sustainable development (national parks, biodiversity, payment for environmental services, etc.)

Week 2 – Day 2	Effects of climate change on food production
Week 2 – Day 3	Clean energies
Week 2 – Day 4	Food security and health
Week 2 – Day 5	Sustainable tourism
Week 2 – Day 6	Natural medicine
Week 2 – Day 7	Field visit
Week 3 – Day 1	Sustainable communities
Week 3 – Day 2	Independent work on project presentations
Week 3 – Day 3	Students' project presentations
Week 3 – Day 4	Evaluations
Week 3 – Day 5	Wrap-up course - Feedback

C. Methodology

The course will use a participatory approach where students will be allowed to select their main areas of work, based on their own interests, ICDS approval, and La Flor's available options and priorities.

Each day will include 4 hours of farm work and 4 hours of classroom work. In both cases, students will dedicate 2 hours to assigned tasks and another 2 to their selected projects.

Beyond that, students will dedicate time to read assigned materials, research assigned or selected topics, and prepare for the next day's activities.

D. Evaluation

Students will be graded based on the following criteria:

- Attendance and participation in field and classroom work 20%
- Classroom evaluation (quizzes, assignments and exams) 40%
- Individual project development and final presentation 40%

Special Needs

In case of requiring additional time for taking exams or experiencing any circumstance during the course that could interfere with the student's ability to complete his/her work or take a test, students should let the professor know ahead of time.

E. Description of assignments and other course assessments

- Students will perform fieldwork under the direction of farm staff, who will supervise and evaluate their participation and performance (20%)
- Classroom work and reading assignments' evaluation will be based on quizzes, oral assignments and a formal exam (40%)
- Students will dedicate time in the field to work on individual projects, and time in class to research, analyze, write, and prepare presentations on their selected projects, to be evaluated by academic and farm staff (40%)

Sample topics for individual work (actual assignments will be defined on-site):

- Forest maintenance
- Forest inventorying
- Implementation and maintenance of biodigestor systems
- Implementation and maintenance of water management systems
- Implementation and maintenance of waste management and recycling systems
- Implementation and maintenance of permaculture systems
- Upkeep and development of gardens (botanical, medicinal, recreational. etc.)
- Design and implementation of healthy food menus
- Community outreach programs and environmental education
- Development of a library and teaching resources project
- Composting
- Milk and cheese production
- Goat keeping, animal husbandry and farm animal care
- Improving accessibility
- Innovations and improvements with low impact technologies

F. Average minimum amount of out-of-class or independent learning expected per week

Students are expected to dedicate 2 hours a day to independent, out-of-class learning and research work.

G. Bibliography (subject to modification)

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http://agroeco.org/wp-content/uploads/2010/12/Bioscience-devSustAg.pdf

http://agroeco.org/wp-content/uploads/2011/02/ecolrolebiodiv.pdf

http://agroeco.org/wp-content/uploads/2010/09/Altieri-agroecoMR.pdf

Viewing:

You Tube – Seeds of Permaculture – Tropical Permaculture.
http://search.yahoo.com/search?p=Seeds+of+Permaculture+you+tube&ei=utf-8&fr=chr-yie9

H. ICDS Academic Integrity Code

Students are expected to abide by common sense, normal regulations on Academic Integrity. Violations of the Academic Integrity policy include, but are not limited to plagiarism, fabrication, cheating, and academic misconduct, including dishonest acts such as tampering with grades or taking part in obtaining or distributing any part of an administered or non-administered test/assignment. The intent to violate this policy also represents a violation of this policy.

Possible Sanctions for Violating Academic Integrity Policy: If an act of academic dishonesty is determined to have occurred, one or more of the following sanctions will be imposed, depending on the severity of a first-time offense:

- Reduction of a course grade
- Obtention of an "F" grade for the assignment or exam
- Failure for the entire course
- Other action deemed appropriate by the faculty member
- Any of the above sanctions with the inability to withdraw.

The decision about the sanction to apply will be made jointly by the course's professor and ICDS' Academic Director, in consultation with home university on-site Director for the program, if applicable. The incident will be reported to the home university and may result in an official conduct record for the student(s).

Second Academic Violation: A second violation will result in **s**uspension or expulsion from the program, in addition to any sanction issued from the list above.

Changes to Syllabus: The student acknowledges receipt of this syllabus and the information herein by continuing to attend this course. The Instructor reserves the right to make changes to this syllabus if circumstances warrant such change, with previous approval of ICDS' Academic Director. All major changes will be provided to the student in writing.