Special Topics: Food Forests
Fall 2016
Department of Earth and Environment

Course numbers: EVR 4934 (89686), EVR 5935 (84077)

Course credit: 3 hours

Meeting time: MWF 1-1:50pm

Room: Graham Center (GC) 273B

Instructor: Dr. Cara Rockwell
crockwel@fiu.edu
305-348-8140
AHC5 361

Office hours: TW 11:00 am– 1:00 pm or by appointment

Required course materials:
- Atangana, A., Khasa, D., Chang, S., Degrande, A. 2014. Tropical Agroforestry. Springer, Dordrecht, the Netherlands.

Reference Books (Copies of these will be kept ON RESERVE in the Green Library)**:**
- Jacke, D., Toensmeier, E. 2005. Edible Forest Gardens (Volumes 1 and 2). Chelsea Green Publishing, White River Junction, Vermont.
- Paull, R.E., Duarte, O. 2011. Tropical Fruits (Crop Production Science in Horticulture). CABI.
- Schroth, G., DaFonseca, G.A.B., Harvey, C., Gascon, C., Vasconcelos, H.L., Izac, A.M.N. 2004. Agroforestry and biodiversity conservation in tropical landscapes. Island Press.

Course description: The purpose of this course is to provide a strong foundation for student evaluation and interpretation of urban and rural food forests. The class will review the ecological principles of food forests as sustainable agroecosystems and highlight the socioeconomic benefits of integrating forest gardening into the South Florida landscape.

Learning objectives:
- Demonstrate an understanding of the biological, social, and economic principles required to establish an effective food forest
- Engage in qualitative and quantitative methods for evaluating food forest productivity
- Evaluate ecological potential of urban and rural food forests to complement ongoing agro-ecosystem restoration and natural resource management efforts
- Assess South Florida's breadth of food forestry examples in the context of Latin American and Caribbean tropical agroforestry systems
- Address land-use limitations and environmental issues in South Florida and how they may be mitigated by food forest establishment

Undergraduate Grading:

•	Class attendance and participation	10%
•	Other assignments, etc.	20%
•	Mid-term exam	20%
•	Group Presentation	30%
•	Final Exam	20%

Graduate Grading:

•	Class attendance and participation	10%
•	Other assignments, etc.	10%
•	Mid-term exam	20%
•	Group Presentation	20%
•	Final Exam	20%
•	Food forest development proposal	20%

Grades: A: 90 and above; B+: 85-89; B: 80-84; C+: 75-79; C: <75

Course Requirements:

1. Students will be responsible for researching two individual plant species and presenting their findings to the class (15 minutes max). Leaf (and flower or fruit if possible) collections will be made by each student. The plants will randomly be assigned based on the following groups: Nitrogen fixer; Food producer; Fiber/Fuel producer; Medicinal/Other. Students will need to press the leaf sample. In addition to correctly identifying and collecting a sample, students will be responsible for compiling a brief summary of the plant including but not limited to
   - Latin Name
   - Common/Local names
   - Plant family
   - Description
   - Distribution
   - Needs/Tolerances
   - Uses in an Food Forestry System

   In addition to presenting findings to class, students are expected to write up a brief (2 page) summary of their findings.

2. During our field excursions, we will collect socioeconomic (e.g., Rapid Rural Appraisal with landowners) and ecological data (e.g., mapping and identification of plant species). We will divide students in the class based on their interests and ask each group to compile data from these different systems for a comparison that will be presented at the end of the semester to the class as well as our hosts from local farms.

3. Graduate students registered for the course will be required to plan and design a food forest based on an actual property in the Miami Dade County area. You will have a chance to submit a tentative plan by September 16; you will then discuss the proposed research subject with Dr. Rockwell in an individual meeting. A final paper based on your research and design will be by December 5.

Date	Class Content	Work Due
22 Aug	Course organization and goals; Assignment of plant species	
24 Aug	Definition of food forest and agroforestry	
26 Aug	Agroforestry history, concept, principles	
29 Aug	Biological aspects of food forests: plant biology	
31 Aug	Biological aspects of food forests: plant biology	
2 Sep	Biological aspects of food forests: soil	Food Forest development proposal idea (graduate students)
5 Sep	Labor Day (no class)	
7 Sep	Biological aspects of food forests: environmental services	
9 Sep	Economic aspects of food forests	
12 Sep	Socio-cultural aspects of food forests	
14 Sep	Case study ("Valuing environmental benefits of silvopasture practice: a case study of the Lake Okeechobee watershed in Florida")	Assigned reading for case study
16 Sep	Participatory Rural Appraisal	
17 Sep	**Visit to Possum Trot**	
19 Sep	Permaculture principles	
21 Sep	Permaculture in Miami-Dade County (guest lecture)	
23 Sep	Design and management of food forest	
26 Sep	Agroforestry techniques: soil conservation	
28 Sep	Examples of food forests: Latin America	
30 Sep	Examples of food forests: Caribbean	
3 Oct	Examples of food forests: South Florida	
5 Oct	Plant species presentations	Plant species summaries
7 Oct	Plant species presentations	
10 Oct	Fruit production	
12 Oct	Fruit production	
14 Oct	Agroforestry techniques: pruning	
15 Oct	**Visit to LNB Farms (pruning demonstration)**	
17 Oct	Social aspects of food forests	
19 Oct	Social aspects of food forests	
21 Oct	Silvicultural Management and Productivity	
24 Oct	Agroforestry techniques: nursery development	
26 Oct	Agroforestry techniques: grafting	
28 Oct	Mid-term exam	
29 Oct	**Grafting exercise (MMC Organic Garden)**	

31 Oct	Community-based food forest initiatives	
2 Nov	Community-based food forest initiatives (guest lecturer)	
4 Nov	Silvopastoral systems and food forests	
7 Nov	GIS Applications in Agroforestry	
9 Nov	Mapping Fruit Production Systems (guest lecture)	
11 Nov	Veteran's Day (no class)	
14 Nov	Pertinence of food forests in era of global climate change	
16 Nov	Carbon sequestration and climate change mitigation via agroforestry systems	
18 Nov	Carbon sequestration and climate change mitigation via agroforestry systems	
19 Nov	**Visit to Hialeah schools' food forests**	
21 Nov	Market aspects for local farms	Draft Food Forest development proposal (graduate students)
23 Nov	Recent research and development initiatives	
25 Nov	Thanksgiving Holiday (no class)	
28 Nov	Group presentations	
30 Nov	Group presentations	
2 Dec	Group presentations	Final Food Forest development proposal (graduate students)
3 Dec	**Edible South Florida table (Possum Trot)**	
5 Dec	Final Exam	

Course policies

- Attendance is a prerequisite to in-class participation. **Every student is expected to attend every class.** You will lose credit for each additional absence. If you know you will need to miss a class, let me know immediately. In general, more than one absence is not acceptable (except under extreme circumstances), and will be reflected in your participation grade. Unplanned absences (emergencies) are dealt with differently.

- Please come to class ready to engage in group discussion

- All assignments will be submitted electronically via Blackboard. No late assignments will be accepted unless exceptional conditions apply per the *Student Handbook.* If these conditions apply, please provide dated, written documentation of your emergency.

- As per University policy, a grade of incomplete will only be given "…for work not completed because of serious interruption not caused by the student's own negligence." An incomplete will only be given after consultation with me and the preparation and signing of a written agreement outlining the reason for the incomplete and a timetable for making up the missing work.

Academic Honesty, FIU Counseling Services, FIU Police Department, Services for Students with Disabilities

Academic Honesty

FIU students are bound by the FIU Code of Academic Integrity which states: "I will not represent someone else's work as my own; I will not cheat, nor will I aid in another's cheating; I will be honest in my academic endeavors; I understand that if I am found responsible for academic misconduct, I will be subject to the Academic Misconduct procedures and sanctions, as outlined below".

Disciplinary sanctions:
1. expulsion, including record on transcript.
2. suspension, including record on transcript.
3. disciplinary probation
4. failing or reduction of grade
5. restitution or reimbursement for damages
6. restriction of university privileges
7. service to the university
8. counseling
9. enrolling in a specified course
10. other

Procedures
1. referral through the vice provost
2. charges brought by faculty member, student, or even person outside the university
3. complainant must meet with suspected student first
4. student's status unchanged pending the outcome of investigation
5. informal resolution: completed within 14 days of event; complainant discusses event with vice provost first
6. formal resolution: referred directly to vice provost; student hears from this office within 7 calendar days of submission of information

7.   student informed in writing
8.   university academic conduct review board hearing: one grad faculty, one administrator, two grad students
9.   university academic conduct review board finds student responsible or not responsible based on a preponderance of evidence; chair votes to break ties
10.   vice provost: choice to accept recommendation or remand the case for a rehearing
11.   student has right to appeal; done within 14 days of decision notification

FIU Student Affairs Counseling and Psychological Services
http://counselingservices.fiu.edu/
Appointments: 305-392-1575
24 Hour Hotline: 305-348-3000

FIU Police Department
(305) 348-2626 (Modesto Maidique Campus) or 9-1-1 for emergencies.

Students with Disabilities
Students with disabilities requesting accommodations should register early in the semester with the FIU Student Affairs Disability Resource Center [305-348-3532 (Modesto Maidique Campus), http://drc.fiu.edu/] in order to receive accommodation.