Title: “Food, Trees and Culture—Indigenous Sustainable Agroforestry Systems”
Draft Syllabus Winter 2018
Instructor: Jean B. Faye
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Course Description and Purpose:
The purpose of this course is to make students of environmental studies, food studies and other natural resources disciplines familiar with the major types of sustainable agroforestry systems used by people in both developed and developing countries and inform them about the ecological benefits they provide to humans, plants, animals, and to the environment. This course aims to educate students interested in the interaction of biophysical, social, political and economic issues underlying the adoption and application of world agroforestry systems. The lectures emphasize the basic components and concepts of cognate subjects of agroforestry and human-environment relations. Assigned readings add training in analyzing complex social and ecological systems and specific applications such as nut-tree crop combinations, forest farming, carbon farming, and concepts of climate change adaption.

This course can contribute to the Natural and Social Sciences components of the UO core requirements. It focuses on the interplay between the science of sustainable agriculture (or agroecology), forestry, environmental issues, and livestock husbandry with the social and economic aspects of communities to improve agri-cultural production while protecting the environment. Critical thinking is encouraged through class-discussions, assigned readings and writing Rhetorical Précis, midterm examination questions, and writing a final research-based term paper.

Course Learning Objectives:
. To be able to identify and explain the various social and ecological agroforestry concepts, cultures and techniques used worldwide.
. To understand the interactions between farming communities, agricultural crops, livestock and trees for food, nutrients, water, and minimize competition for these resources.
. To analyze the connections between this course and other environmental courses.
. To develop the ability of students to think critically about environmental issues and practices associated with social agroforestry, domestically and globally.
. To enable each student to investigate in depth at least one agroforestry issue or practice and learn to find feasible solutions to current environmentally related problems.
. To identify different land-use systems, characterize economic and socio-cultural qualities.

Course Requirements:
Class discussions and debates on social, environmental benefits and misunderstandings about the concepts and classification of this progressively recognized land-use discipline. 
Lectures, Readings, Videos, and Field trips: Relevant videos will be shown in class.
The syllabus includes daily assigned readings. For each class session, 2 articles, excerpts
of the book “Hidden Life of Trees: What They Feel, How They Communicate” are
designated, and copies of assigned readings or Internet links to readings are available on
Canvas. One or two Field trips to farms applying some sort of agroforestry systems in the
area will be organized.

Short reflections (of one article per week) using the **Rhetorical Précis** (RP) format are
due at the beginning of class, once a week only via Canvas. Everyone is expected to read
all assigned articles on the class list and write a RP of the selected article for the week.
RPs together with other assignments will only be accepted via Canvas. The **Rhetorical
Précis** is a formally structured abstract of the content and context of a written work. It
treats articles as a form of active discourse between the author and the reader. Students
are highly discouraged to *copy* the assigned articles’ abstracts for submission. More
description about the Précis format, including an example can be found in Canvas. There
will be 4 surprise quizzes (short answers questions from lectures) during the term.

**Field Trips:** There are one or two required field trips. Students are expected to participate
in all field trips and write a report on them. Students who cannot participate in those field
trips must make alternative arrangements with the instructor by the first days of class.

**Attendance and Participation**
Please come to class prepared to participate in highly interactive and organized round-
table discussions, small group work, question and answer sessions. And if you need to be
absent for health reasons and/or family emergencies, let me know beforehand. Roll will
be taken.

**Final Term Paper:** A short scholarly paper (4-5 p) is required due at the final. Please
see instructions for term paper rubric posted on Canvas.

**Grades scale:**
- Attendance and Class Participation: 10%
- 1 Midterm Exam (short questions examination) = 30%
- Rhetorical Précis (6) and Quizzes (5) = 25%
- Field trips and book reports (3-4 pg. Essay) = 20%
- 1 Research-based term paper including Proposals = 15%

**Students Learning Outcomes:** At the end of the term, I would want students to
understand, be able to describe the subject matter, and to critically analyze topics through
round-table discussions, midterm, quizzes, group presentations, and final term paper.
- Identify the five major types of sustainable agroforestry concepts (i.e. silvopastures,
  alley-cropping, riparian buffers, forest farming, and windbreaks) socio-economic and
  environmental benefits associated with them.
- Consider the biological, socio-cultural and environmental factors when designing or
evaluating sustainable agroforestry systems.
- Understand the complex human-environment interactions of food, trees, and culture

**Studying for Examinations:**
Examinations will be of the “short answers, essay” type. Successful answers to exam
questions will include information drawn from lecture materials, videos and assigned
readings.
Methods of Instruction:
The class will be organized so that students are sitting in a circle to allow open-discussion among students and instructor to discuss readings, lectures, class activities, and short videos.

Academic Dishonesty and Student Conduct:
The course conforms to the University of Oregon Administrative Rules related to Student Conduct. Please respect your fellow students by not exhibiting disruptive behavior. More expectations for student conduct can be found at https://uodos.uoregon.edu/StudentConductandCommunityStandards.aspx

Course Outline:
Syllabus and Assigned Readings: This course uses a set of assigned readings rather and a published textbook (“Hidden Life of Trees: What They Feel, How They Communicate”, by Peter Wohlleben). The book and set of assigned articles were selected to give a broad view of trees and community sustainable agroforestry systems, including both specific technology along with the social, cultural, economic, and biological context in which these environmental systems operate.

Week 1: Defining Indigenous Sustainable Agroforestry, Land Use Issues, and Biomes Classification

8 Jan. Introduction to the course; Definition and History of Agroforestry

10 Jan. Biomes: Classification and description; Major Land uses Issues; Indigenous Agroforestry: Tropical Forest Swidden Systems and Impacts.

Week 2: Classification of Sustainable Agroforestry: Basic Concepts and Practices

15 Jan. No Class (MLK Holiday)

17 Jan. Types of Agroforestry in America and Europe: Analysis of Alley Cropping, Sylvopastoral, and Agroforests (i.e. coffee), Windbreaks, Riparian buffers, etc.
Olea, L., & Ayanz, S.M. 2006. The Spanish Dehesa. A traditional Mediterranean silvopastoral system linking production and nature conservation growing, Badajoz, Spain (Opening paper)

**Week 3: Classification of Sustainable Agroforestry in Africa and Environmental Services**

**22 Jan. Types of Indigenous Agroforestry Systems in Africa and Asia: Homegardens, Parklands, Intercropping, Rotational Tree Fallows, Agroforests (i.e. coffee), etc.**
**Assigned Readings:** Kumar, B.M. 2006. Agroforestry: the new old paradigm for Asian food Security. *Journal of Tropical Agriculture* 44 (1-2) 1:14

**24 Jan. Ecological Interactions and productivity: Nutrient Cycling; SOM; Effects of Trees on Soils: Biological Nitrogen Fixation**
**Assigned Readings:** Rizvi, S. 1999. Allelopathic Interactions in Agroforestry Systems, [http://dx.doi.org/10.1080/07352689991309487](http://dx.doi.org/10.1080/07352689991309487)

**29 Jan. Soil Fertility and Productivity: Soil Conservation and Biodiversity Conservation**
**Assigned Readings:** Schwab, N., Schickhoff, U., and E. Fischer. 2015. Transition to agroforestry significantly improves soil quality: A case study in the central mid-hills of Nepal, Agriculture, Ecosystems and Environment 205: 57-69

**Week 4: Sustainable Agroforestry and Climate Change Impacts: Carbon Farming**

**31 Jan. Sustainable Agroforestry and Climate Change in the Americas and Europe**

**Week 5: Sustainable Agroforestry and Climate Change cont’d**
**5 Feb. Indigenous Agroforestry and Climate Change in Africa and Asia: Carbon Sequestration**

7 Feb. Midterm Exam (No assigned readings)

Week 6: Agroforestry Systems, Food Security and Agrobiodiversity

12 Feb. Tree Crops: Creating an Evergreen Agriculture for Food Security and Livelihood Resilience

**Assigned Readings:** Assah, E. et al. 2011. Trees, agroforestry and multifunctional agriculture in Cameroun; [http://www.tandfonline.com/loi/tags20](http://www.tandfonline.com/loi/tags20)


14 Feb. Food and Agroforestry Systems


Week 7: Social and Cultural Basis of Indigenous Sustainable Agroforestry

19 Feb. Land Tenure and Society: Social Equity, Class and Gender Issues


**Book Report due (3-4 pages)**

21 Feb. Land tenure and society: Social-Cultural Aspects; Division of Labor and Decision-making.

**Assigned Readings:** Fairhead, J., Melissa Leach and Ian Scoones. 2012. Green Grabbing: a new appropriation of nature?

Galvan, D. 2004. Trove of the Maad: The State and the Rain Festival

Week 8: Economic Basis of Sustainable Agroforestry Systems

26 Feb. Economic Basis for Sustainable Agroforestry: Cost & Benefit Analysis

**Assigned Readings:** Gram, S., L.P. Kvist, and A. Caseres. 2001. The economic importance of products extracted from Amazon flood plain forests. *Ambio* 30:365-368

28 Feb. **Cost and Benefits of AFS; Policy Support**


**Week 9: Future of Global Sustainable Agroforestry Systems and Opportunities**

5 Mar. **Future of Sustainable Agroforestry Systems: Constraints/Obstacles to Sustainable Agroforestry adoption**


7 Mar. **Open**

**Week 10: Group Presentations**

12 Mar. **First Group**

14 Mar. **Second Group**

19 Mar. **FINAL Research-based Paper due**

**Some interesting web sites:**

- Oregon Small Farms Site - [http://smallfarms.oregonstate.edu/](http://smallfarms.oregonstate.edu/)
- UO Urban Farm Site - [https://blogs.uoregon.edu/urbanfarm/](https://blogs.uoregon.edu/urbanfarm/)
- World Agroforestry Center (formerly ICRAF) - [http://www.worldagroforestry.org/](http://www.worldagroforestry.org/)
- USDA National Agroforestry Center - [http://www.unl.edu/nac](http://www.unl.edu/nac)
- The Overstory- Agroforestry.net - [http://agroforestry.net/](http://agroforestry.net/)
- California Hardwood Page - [http://danr.ucop.edu/ihrmp/](http://danr.ucop.edu/ihrmp/)
- University of Missouri Agroforestry Center - [http://www.centerforagroforestry.org/](http://www.centerforagroforestry.org/)