

be an optional 3-day field trip to the island of Hawaii during Spring Break. Assignments will include summary, analysis, and interpretation of data collected during the field trips.

3. Exams: Two mid-term exams will be given. A comprehensive final exam will be given during exam week.

Schedule of Topics

Weeks 1-2: Tropical Forests and Life Zone Classifications

Readings:

Kellman and Tackaberry. 1997. *Tropical Environments*. Chapter 3: Tropical Climates and Moisture Regimes.

Holdridge. 1967. *Life Zone Ecology*. Chapter 2 and 3: The Life Zone and The Life Zone Chart.

Discussion:

How well does Hawaii fit in life zone classification schemes?

Weeks 3-5: Tree and Forest Structure, Dynamics, and Measurements

Readings:

Idol. Handout: *Trees and Tree Architecture*.

Idol. Handout: *Tree and Forest Measurements*.

Kohm and Franklin. 1997. *Creating a Forestry for the 21st Century*. Chapter 2: Forest Stand Structure and Function.

Field Trip

Discussion: Comparison of forest inventory and analysis procedures

Week 6: Forests and Forestry in Hawaii

Readings:

Mueller-Dombois and Fosberg. 1998. *Vegetation of the Tropical Pacific Islands*. Chapter IX: The Hawaiian Islands.

Little and Skolmen. 1989. *Common Forest Trees of Hawaii*. Introduction.

Exam 1

Weeks 7-8: Tropical Forest Management from Pre-history to European Colonization

Readings:

Shepherd. 1992. *Managing Africa's Tropical Dry Forests*. Introduction.

Reed. 1997. *Forest Dwellers, Forest Protectors*. Chapter 3: Guaraní Production.

Colfer, Peluso, and Chung. 1997. *Beyond Slash and Burn*. Chapter 3: The Uma' Jalan System

Gill. 1931. *Tropical Forests of the Caribbean*. Chapter IV: The White Man's Invasion.

Discussion: The controversial role of shifting cultivation in tropical forest management

Weeks 9-10. Modern Silvicultural Systems

Readings:

Handout on harvest methods

Kellman and Tackaberry. 1997. *Tropical Environments*. Ch. 6: Tropical Forests and Forestry

Nambiar and Brown. 1997. *Management of Soil, Nutrients and Water in Tropical Plantation Forests*. Ch. 1: Plantations for the Tropics.

Evans. 2000. *Sustainability of Productivity in Successive Rotations*.

Discussion: Plantation forestry in the tropics

Week 11: Optional Field Trip to Hawaii Island, Mar. 24-26

Week 12-15. Tropical Agroforestry Systems

Readings:

Elevitch and Wilkinson. 2000. *Agroforestry Guides for Pacific Islands*.

Chapter 1. Information Resources for Pacific Island Agroforestry.

Chapter 2. Multipurpose Trees for Agroforestry in the Pacific Islands.

Huxley 1999. *Tropical Agroforestry*. Section III.

Chapter 12. The Tree-Crop Interface.

Chapter 13. Competition and Complementarity.

Chapter 14. Measuring the Efficiency of Agroforestry Systems.

Elevitch and Wilkinson. 2000. *Agroforestry Guides for Pacific Islands*.

Chapter 5. Introduction to Integrating Trees into Pacific Island Farm Systems.

Chapter 4. Integrating Understory Crops with Tree Crops.

Chapter 7. Economics of Farm Forestry.

Exam 2

Field Trip

Discussion: Tree-crop interactions in agroforestry systems.

Weeks 16-17. Designing Sustainable Forestry Systems

Readings:

Montagnini and Jordan. 2005. Ch. 5. Management of Tropical Forests.

Oliver. *Sustainable Forestry*. J. Forestry. July/August 2003.

USDA Forest Service. 2003. National Report on Sustainable Forests

Hendricks. *International Dialogue on Sustainable Forest Management*. J. Forest. July/Aug 2003.

Discussion: Sustainable forestry in the tropics