COURSE DETAIL

TROPICAL CROP ECOLOGY
Country Barbados
Host Institution University of the West Indies
Program(s) University of the West Indies
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences Agricultural Sciences
UCEAP Course Number 163
UCEAP Course Suffix
UCEAP Official Title TROPICAL CROP ECOLOGY
UCEAP Transcript Title TROPIC CROP ECOLOGY
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines the study of the interactions between crop plants and their abiotic and biotic environments within the tropical agroecosystem. In this course, the focus is on the environmental relations of individual crop species (autecology). Characteristics of the crop production system will be studied along with human and environmental influences on the provision of ecosystem services, resource use efficiency, crop yield, and sustainability. Crop evolution, breeding and distribution will be explored using selected crop examples and taking into account propagation issues, environmental influences and crop production goals. Physical factors of particular interest include solar irradiance, temperature, water supply, atmospheric conditions, and soil characteristics (including mineral nutrient supply). The balance of carbon, energy, water, and mineral nutrients in crop ecosystems is also relevant for the analysis of input use efficiency. Biotic factors of interest include cropping system features, plant density, weeds, pests, diseases, and beneficial organisms. Biotic and abiotic stress factors will be identified along with the nature of plant stress injuries and adaptations/manipulations that favor growth and production in suboptimal environments. Integrated approaches for the management of abiotic and biotic constraints to crop production will be considered.

Language(s) of Instruction
English

Host Institution Course Number
ECOL3463

Host Institution Course Title
TROPICAL CROP ECOLOGY

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree
Host Institution Department Biological and Chemical Sciences
Course Last Reviewed 2022-2023

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