PLSC: PLANT SCIENCE (PLSC)

PLSC 140. Principles of Plant Science. (3 Credits)
An in-depth study of the fundamentals of plant science, including basic principles of plant growth, culture, development, propagation and the relationship of the broad industry of agriculture to plant development.

PLSC 250. Introd Natural Resr & Forestry. (3 Credits)
A study of the fundamental concepts of natural resource management, including forestry, forest products, conservation, wildlife, and recreation. Critical natural resource issues will be emphasized, including biophysical and socioeconomic aspects, as well as careers that address these issues. Prerequisites: PLSC 140 Principles of Plant Science; sophomore or above standing.

PLSC 341. Field Crops Production. (3 Credits)
A study of the distribution, adaptation, cultural practices, and selection of the principal field crops. Special attention will be given to the identification and habitats of cereal crops, legumes and grasses.

PLSC 352. Forage Crops And Pasture Mgmt. (3 Credits)
A study of the production and handling of leading forage crops, their relationship to the livestock industry and the maintenance of soil fertility. Special attention is given to hay and pasture management.

PLSC 353. Integrated Pest Mgmt Strategie. (3 Credits)
A study of the combined use of biological, chemical, and cultural methods utilized to keep pest populations below accepted threshold levels. Special attention is given to pesticide applications, ecological/environmental factors, residues, application equipment, and economical considerations.

PLSC 440. Plant Resistance To Insects. (2 Credits)
The study of mechanisms of plant resistance to insects' attack and the utilization of insect control by chemical and non-chemicals means. Special attention is given to factors related to the cause of resistance and methods of breeding insect restraint varieties of field and horticultural crops. Prerequisites: Junior or above standing.

PLSC 441. Plant Pathology. (4 Credits)
A study of the nature, cause and control of plant diseases. This course will concentrate on disease of field, orchard and vegetable crops. Prerequisites: PLSC 140 Principles of Plant Science; junior or above standing.

PLSC 442. Problems In Plant Science. (3 Credits)
This course is designed for advanced students to work independently on problems relating to genetics and physiology of horticulture and field crops. The problem studied must be one of modern concern to the plant science industry. Prerequisites: Junior or above standing.

PLSC 444. Genetics. (3 Credits)
An in-depth study of the fundamental principles, mechanisms, and heredity of plants and animals. Emphasis will be placed on genetic engineering and gene transfer of crops and animals.

PLSC 445. Economic Entomology. (3 Credits)
A study of the classification, structure, description, habits of the principal insects and the methods of control. Student will also become familiar with the economic benefits and importance of insects to humans. Prerequisites: BIOL 120 Principles of Modern Biology, GEC 142 Principles of Agricultural Economics and BIOL 313 General Zoology or equivalent.

PLSC 446. Plant Physiology. (4 Credits)
A study of the plant cell, solutions, and membranes in relation to the cell root systems. Emphasis will be placed on the plant cell response to the intake of water, intake of solutes, induced elements, and the loss of water. Prerequisites: PLSC 140 Principles of Plant Science, junior or above standing.

PLSC 448. Plant Breeding. (3 Credits)
Astudy of the application of genetics and simple biometric constants to the breeding of field and horticultural crops. The history and creation of plant transformation will be emphasized. Prerequisite: PLSC 444 Genetics; academic advisor's approval and junior or above standing.

PLSC 450. Introduction To Forestry. (3 Credits)
A study of the broad concept of forestry and forestry products with special interest on ecology, silviculture, reproduction, protection, measurement and other forest management practices.

PLSC 452. Urban Natural Resource Mgmt. (3 Credits)
An overview of the ecosystem services provided by urban and suburban trees and green space, as well as methods to evaluate and manage potential benefits, risks, and costs. The course will include a study of the social needs and values of urban ecosystems; urban forest resource inventories; tree and vegetation ordinances; the development, financing, and management of urban forestry programs; and community involvement, public relations, and urban forestry education programs. Prerequisite: PLSC 250 Introduction to Natural Resources and Forestry.

PLSC 454. Special Topics In Crop Science. (3 Credits)
Selected topics for advanced student dealing with current issues in crop science. Special emphasis is placed on modern crop production problems. Prerequisites: Junior or above standing.

PLSC 455. Turf Management. (3 Credits)
A study of turf grasses and their growth requirements, including the various turf operations, equipment needs, materials and work programs designed for the efficient maintenance of turf as related to specific uses.