

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
HRT 127 - HORTICULTURAL BOTANY (3 CR.)**

Course Description

Studies plant taxonomy, morphology, anatomy, physiology, reproduction and genetics. Stresses their importance in plant identification, propagation and culture. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose

This course provides students with the fundamentals of plant science with special emphasis on plant biology, including anatomy, plant physiology and plant taxonomy. It emphasizes microscopic and macroscopic examination of vascular plants.

Course Prerequisites/Corequisites

Students should be able to read at the college level.

Course Objectives

Upon completion of the course students should be able to correctly draw and label, describe, define, list, identify, compare or contrast:

- The major internal and external anatomical parts of higher plants, particularly those plants used for economic purposes.
- The major environmental and physiological processes relevant to plant growth.
- The major classification systems commonly used in botanical nomenclature.

Major Topics to be Included

- The science of botany
- Cell structure and functions
- Plant genetics
- Structure and function of plant tissues and organs
- Photosynthesis and respiration
- Water and nutrient absorption
- Plant hormones
- Ecology and evolution
- Horticulturally important families