

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY HRT 125 – CHEMICAL IN HORTICULTURE (3 CR.)

Course Description

Emphasizes basic chemical principles and their application to horticulture. Introduces principles of inorganic and organic chemicals. Studies chemical activities of insecticides, fungicides, herbicides, fertilizers, and growth regulators. Provides students an opportunity to test for their Commercial Pesticide Applicators License, administered by VDACS, at the end of the course. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose

Students will learn pesticide safety practices as well as applicable pest management techniques in order to prepare for the state certification exams. The ultimate outcome of the class is to become a commercial pesticide applicator in Categories 3A and 3B Ornamentals and Turf (as designated by the Virginia Pesticide Control Board). This course can be used for the Horticulture Chemistry requirement which is a required for the Horticulture Technology AAS degree.

Course Prerequisites/Corequisites

None

Course Objectives

Upon completing the course, the student will be able to:

- a. Summarize the principles of pesticide safety;
- b. Identify and comply with the regulations affecting commercial pesticide applicators in Virginia;
- c. Recognize and implement management techniques for ornamental and turf pests; and
- d. Compute square footage and perform other required calibration math to determine the correct rate of product application

Major Topics to be Included

- a. Pesticide regulations in Virginia
- b. Labeling and formulations
- c. IPM (integrated pest management)
- d. Environmental concerns
- e. Mixing, loading, and applying pesticides
- f. Personal protection
- g. Spill management
- h. Ornamental pest management
- i. Turf pest management