

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY  
HRT 119 - IRRIGATION SYSTEMS FOR TURF AND ORNAMENTALS (3 CR.)**

**Course Description**

Explains why, when and how irrigation systems are used by the grounds management industry. Includes component selection, system design, installation, operation and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**General Course Purpose**

This course is designed to help the student design, install and maintain irrigation systems for landscaped areas.

**Course Prerequisites/Co-requisites**

Students must be prepared to perform college-level calculations and to read technical course materials.

**Course Objectives**

Upon completion of the course students should be able to:

- Describe the many uses of irrigation systems in the landscape.
- Explain when to water and how much to apply in different situations.
- Design simple systems.
- Explain how to install irrigation systems.
- Maintain irrigation systems.

**Major Topics to be Covered**

- a. Why irrigate
- b. Irrigation timing
- c. Irrigation rate and intensity
- d. Water sources and quality
- e. Irrigation systems for various uses:
  1. Components
  2. Different types of each component
- f. Drainage and suction systems
- g. System design
- h. Installing irrigation systems
- i. System operation
- j. Maintenance and warranties
- k. Laboratory sessions during which students see actual components and operational irrigation systems, design systems for different situations, and may practice installation skills