

## Syllabus

### HRT 151 Woody Plant Materials

#### General Information

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**Date**

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**Author**

Shawn Kenaley

**Department**

Conservation

**Course Prefix**

HRT

**Course Number**

151

**Course Title**

Woody Plant Materials

#### Course Information

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**Credit Hours**

3

**Lecture Contact Hours**

2

**Lab Contact Hours**

2

**Other Contact Hours**

0

**Catalog Description**

This course integrates classroom and hands-on learning towards the identification and utilization of trees and shrubs - native and non-indigenous – in commercial and residential ornamental landscapes as well as the horticulture industry at large. This course emphasizes plant anatomy, taxonomic identification, culture requirements, landscape value, proper placement and maintenance, and seasonal interest within gardens and the broader landscape. Students will develop recognition skills of commonly used trees and shrubs in Northeast gardens and planted landscapes according to their scientific classification and, hence, will develop tree and shrub selection skills – assembling best-fit plants for garden/landscape application based on aesthetics, ecology, and sustainability. Classroom learning will be reinforced by practical experiences on the grounds of FLCC, including arboretum, and visits to local cemeteries and botanic gardens.

**Prerequisites**

None

**Co-requisites**

None

**Grading Scheme**

Letter

#### First Year Experience/Capstone Designation

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This course DOES NOT satisfy the outcomes applicable for status as a FYE or Capstone.

# SUNY General Education

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This course is designated as satisfying a requirement in the following SUNY Gen Ed category

None

## FLCC Values

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Institutional Learning Outcomes Addressed by the Course

None

## Course Learning Outcomes

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### Course Learning Outcomes

1. Define and give examples for relevant terms as they relate to woody plants, trees and shrubs.
2. Identify woody plants using classification criteria (e.g. seasonal characteristics, cultural needs, and landscape uses).
3. Apply an identification scheme (e.g. health, leaf arrangement, twig and bark characteristics, growth habit, and flower type and morphology) to differentiate trees and shrubs with similar characteristics.
4. Recommend woody material based on a variety of aesthetic needs and observed cultural conditions.

## Program Affiliation

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This course is required as a core program course in the following program

AAS Horticulture

## Outline of Topics Covered

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1. **Introduction to Plant Classification, Morphology, and Vocabulary**
  - a. **Nomenclature and taxonomy**
  - b. **Leaf and twig anatomy**
  - c. **Branching arrangement**
  - d. **Flower and fruit types as well as associated morphological characteristics**
  - e. **Common descriptive terms utilized in botany and, at large, plant identification to compare and contrast families and specific taxa based on growth habit as well as leaf, flower, fruit, and twig morphology.**
  
2. **Introduction to Woody Plants: Ecology and Sustainable utilization**
  - a. **Angiosperms versus gymnosperms**
  - b. **Deciduous versus evergreen plants**
  - c. **Plant selection criteria**
    - i. **Flowering and fruiting times**

- ii. **Site considerations**
  - 1. **Light and exposure**
  - 2. **Soil (drainage, pH, nutrient availability, texture)**
  - 3. **Hardiness zone**
- iii. **Native versus non-native**
- iv. **Pests and disease**
- v. **Utilization strategies**
  - 1. **Windbreaks**
  - 2. **Wildlife**
  - 3. **Foundational plantings**
  - 4. **Winterscape (post-defoliation/evergreen color and texture)**
  - 5. **Privacy**
  - 6. **Native plant landscapes**
  - 7. **Aesthetics**

### 3. **Identification and Culture of Woody Plants in Residential and Commercial landscapes**

#### a. **Plant Lists**

##### i. **Deciduous trees and shrubs**

###### 1. **Winter identification**

a. **Bark, branch arrangement, buds, growth habit, and twigs.**

###### 2. **Growing season identification**

a. **Leaf anatomy and arrangement, bark, branch arrangement, buds, flowers, fruits, and twigs.**

##### ii. **Broadleaf evergreens**

1. **Leaf anatomy and arrangement, branch arrangement, buds, flowers, fruits, and twigs.**

##### iii. **Coniferous trees and shrubs**

1. **Needle arrangement and morphology, buds, cones, growth habit, and twigs.**