

**Southern Maine Community College  
South Portland, Maine 04106**

**Title: Arboriculture & Lab**  
**Catalog Numbers:**  
**Total Contact Hours:**

**Credit: 3**  
**Lecture: HORT 150 11**  
**Lecture: 32 hrs. T. 8 -10**

**Instructor: Thomas Hoerth**  
**Lab: HORT A150 11**  
**Lab: 32 hrs. T. 10 - Noon**

**Course Syllabus**

**Contact Information**

Instructor: Thomas Hoerth  
Cell: (207)-894-8444  
Email: thoerth@smccme.edu, thoerth@gmail.com

**Office Hours**

I will always be available at the end of class. Please feel free to call, email or leave me a note. For lengthy meetings, please make an appointment.

**Course Description**

This is an introductory course in arboriculture, the planting and care of trees. The student will study the identifying features, growth habits, and cultural requirements for trees. The principles of tree care, pruning, repair, support, and maintenance are covered. The techniques of tree climbing and appropriate knot tying and usage are presented. Preparation to become a Maine State licensed arborist is given. Many classes have an outdoor element to them, so always dress appropriately. Please have a calculator for class. Prerequisite: HORT 120 01 or Department Chairs' approval.

**Important Scheduling Information:** The Horticulture Department's classes end the week ending April 20. To fulfill the required number of contact hours for each of our spring courses, Horticulture students will have academic responsibilities during SMCC's spring break (the week of March 12-16). All students enrolled in Horticulture classes will be encouraged to attend a 3 day / 2 night field trip from Tues. March 13 to Thurs. March 15 to the Philadelphia area where we will visit Longwood Gardens, and attend the Philadelphia Flower Show. Students should make every effort to attend. If you are unable to go, please notify your instructor as soon as possible, and you will be provided with an alternative assignment to complete. More specific details about the field trip will be provided as they become available. Students with three or more absences in any of their HORT courses will not be eligible to participate in this trip, and will be required to complete an alternative assignment. Transportation, accommodations, and admission fees will be provided by the Horticulture Department. Students will be responsible for their own food and spending money.

**Course Objectives:**

After successful completion of this course the student will be able to:

1. Identify tree and shrub species by various plant characteristics
2. Evaluate nursery stock for quality specimens
3. Evaluate sites for appropriate species and planting locations
4. Prune plants for desired objectives
5. Record observations and measurements leading to assessing tree values
6. Demonstrate appropriate knot tying for tree climbing and securing limbs
7. Understand the use and placement of tree support systems
8. Evaluate trees for hazard and potential failure
9. Discuss soil and water relationships and their roles in tree establishment and growth
10. Understand the electrical hazards associated with urban trees
11. Identify insect and disease presence on trees and shrubs and control measures to limit plant damage
12. Achieve proficiency toward successful completion of the Maine Arborist's licensing exam

**Tentative Topical Outline of Instruction: [\* denotes guest speaker(s) or alternate study site]**

	<b><u>Topic</u></b>	<b><u>Reading/Homework</u></b>
<b>Week 1 (1/16)</b>	Introductions, Review Industry, History, Paces	Paces Chart, Locate Tree to be appraised (1, 2, 19-21, 29)
<b>Week 2* (1/23)</b>	CODIT, physiology, Anatomy, References	Measure DBH of Tree (26, 27, 62)
<b>Week 3* (1/30)</b>	Pests, diseases, IPM, Tools	Height of Tree (Clinometer) (16, 18, 28, 84)
<b>Week 4 (2/6)</b>	Equipment, PPE, Identification, Biltmore stick	DBH & Ht. with Biltmore, ID (15,17, 25, 32-36)
<b>Week 5* (2/13)</b>	Cabling, Bracing, Lightening Protection	Portland Country Club (55, 56)
<b>Week 6* (2/20)</b>	EHAP, Safety, Pruning, Location	Locate Tree w/ GPS/Azimuth/Ref. Pt., (3-14, 46, 52, 53, 69)
<b>Week 7 (2/27)</b>	Inventories, ITFD, Species Rating, Big Tree	Assess Tree, Species Rating, Big Tree Pts. (22-24, 30, 31, 45, 47, 58, 61, 63-68, 70-72)
<b>Week 8 (3/6)</b>	Appraisals, Trunk Formula, iTree Eco	Assess site & location of Tree, Trunk Appraisal TRA Article #1 (39-41, 73-76)
<b>Week 9 (3/20)</b>	Replacement Formula, Knots, gear, rope	Replacement Value, TRA article #2 (77)
<b>Week 10* (3/27)</b>	Climbing & Throwline techniques	TRA Article #3
<b>Week 11 (4/3)</b>	Site Selection/evaluation, planting, suitability	(37, 38, 42-44, 48-51, 54, 57, 59, 60, 78-81, 83)
<b>Week 12 (4/10)</b>	Planting, water, soil, nutrition	Research Alternative Selections / <b>Risk Report Due</b> (82)
<b>Week 13 (4/17)</b>	Final Exam & Practical	<b>Open Notes / Completed Appraisal Record Due</b>

### **Required Text**

Maine Department of Transportation (MDOT) Work Zone Pocket Guide. Tree Risk Assessment (ISA Publication). Additional handouts and outside readings will be assigned, and either handed out or posted on the Blackboard.

### **Course Requirements**

Attendance is very important and students are expected to attend all scheduled lecture and lab sections. Poor attendance generally results in poor grades. Students having difficulties because of absenteeism should discuss this matter with the instructor. You will be evaluated on your attendance, participation, and discussion.

Tests and quizzes will be announced in advance. There are no make up quizzes and exams unless arrangements are made prior to the announced date. Assigned homework is due the next class period and will be reviewed. There will be assignments every week, as noted on syllabus. The breakdown of your final grade will be homework 15%, quizzes 15%, iTree Eco 20%, Appraisal 25%, and Final Exam 25%.

Lectures, readings, and handouts will present the fundamentals of the subject matter. Labs will provide practical application of the subject matter.

**DRESS APPROPRIATELY FOR OUTDOOR ACTIVITY!!**  
**Please SILENCE cell phones during lecture and lab periods.**

### **Semester Grades**

Grades will be determined by the total points earned divided by those assigned, and will be based on the following:

93-100 A	78-79 C+
90-92 A-	73-77 C
88-89 B+	70-72 C-
83-87 B	60-69 D
80-82 B-	0-59 F

**IMPORTANT:** Horticulture majors must earn a C or better in order to graduate

### **NONDISCRIMINATION STATEMENT**

Southern Maine Community College does not discriminate in its education and employment programs on the basis of age, race, color, gender, sexual orientation, national origin, disability, or religion. The College complies with Title VI of the Civil Rights Act of 1964, Title IX Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990.

Inquiries regarding Title VI and Title IX may be made to:

Affirmative Action Officer  
Southern Maine Community College  
2 Fort Road  
South Portland, ME 04106  
Telephone (207) 741-5798

If you have a disabling condition and wish to request accommodations in order to have reasonable access to programs and services offered by SMCC, you must register with:

ADA Services Coordinator Mark Krogman  
Southern Maine Community College  
2 Fort Road  
South Portland, ME 04106  
Telephone (207) 741-5629 TTY (207) 741-5667