FOR 2324 1 Credit
Spring 2017

Dendrology Laboratory

Required Text: *Woody Plants In North America*
Kendall-Hunt Publishing
Multimedia Computer Software

Other Texts:
A Field Guide to Trees and Shrubs by G. Petrides
The Peterson Field Guide Series
Houghton Mifflin Co.

It is also recommended that you carry with you a hand lens (10x) and a small pocket knife.

Instructor:

Dr. John Seiler is the instructor in charge of the course. His office is in Room 230J Cheatham. Teaching assistants will also be assigned to the various course sections. Any questions you may have regarding course content or grades should be directed to Dr. Seiler (jseiler@vt.edu, 231-5461). The lab assistants' office hours will be announced in lab by the second week of the semester. We all try to keep an open door, so please feel free to stop by at any time.

My teaching Assistants: _____

_____

Educational Goals:

a. To expose students to morphological, ecological and phenological traits used in field identification of woody plants.

b. To stimulate curiosity about woody plant vegetation in North America and to gain an appreciation of its uses by wildlife and people.

c. To introduce some basic characteristics of forest ecosystems.

Specific Objectives:

a. Students should know and be able to list characteristics useful in distinguishing woody plant families and genera.

b. Students should know the scientific and common names of each plant studied in laboratory.

c. Students should be able to identify and name each plant covered in laboratory, either by fruit, cone, leaf, twig, bark, habit, or any combination of these or other characteristics.

d. Students should be familiar with the basic ecology and range of each species covered in the lab through reading materials in the texts.

If you are a person with a disability and desire any assistive devices, services, or other accommodations to participate in this class, please contact John Seiler, 230J Cheatham, at 231-5461, jseiler@vt.edu during business hours of 8 a.m. to 5 p.m. to discuss accommodations.

Grading:

So that you can earn partial credit on wrong answers, the point distribution for grading each quiz specimen is as follows:

Family:	1 point	Species:	1 point
Genus:	1 point	Common Name:	3 points

One-half point will be deducted for each misspelling of any part of the Latin name.

The final numerical grade in the course will be based on the average of all quizzes. The final course average will be calculated as points earned/total points possible.

You will also have the opportunity to earn **bonus points**. During the lab, certain tree quizzes will be designated as **bonus** trees. Correctly identifying these trees by common name only will earn **1 point per tree**. These bonus points will be added only to the **points earned** portion of your grade. Missing a bonus tree will not lower your grade.

If you miss a quiz, the grade will be recorded as a zero (0) unless an acceptable medical excuse is provided or a death occurs in your immediate family. The instructor will schedule a make-up quiz if and when appropriate. If you are sick or need to travel home, contact one of the instructors as soon as possible. Written permission to schedule a make-up quiz must be obtained from the course instructor. The College of Natural Resources Firefighting Policy will be followed.

Final Course Grade:

If your final numerical grade is:	Your final course grade is:
93 or above	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
59 or below	F

Safety Awareness:

All laboratories are conducted outdoors in whole or in part, **regardless of weather conditions.** Appropriate protective clothing should be worn when inclement weather is anticipated. Boots are recommended for off-campus trips. ***Because of the obvious health risks associated with exposure to inclement weather, the instructors reserve the right to dismiss any student who is not properly dressed from any lab period.***

Being outdoors carries some additional risk. Always be aware of your surroundings. Pay special attention while crossing roads or examining trees near roads. Use your knife responsibly. Bees, wasps and yellow jackets, although not common, may be encountered during a lab. You may wish to inform your instructor and TA of any allergies or other medical conditions you may have. Poison ivy will be present so know what the species looks like. It is everyone's responsibility to keep the class safe so stay alert.

Other Digital Media:

The Dendrology Class Home Page can be found at:

http://www.dendro.cnre.vt.edu/dendrology/main.htm

This site has links to the syllabus, grades, announcements, the weather, and much more. Also available are printable tree fact sheets that can be printed out beforehand and carried to the field. ***We strongly encourage the use of these fact sheets.***

Virginia Tech Tree Identification free smart phone app can be found at your app store.

Other Help:

The Dendrology Lab, Room 218 Cheatham Hall, will be set up with specimen examples (twigs, leaves, fruit, etc.) for each week's laboratory. This is for your use on your own time. In addition, we will be having occasional outdoor review sessions. These will be announced in class and e-mail. Pay attention to and take advantage of these opportunities. You are paying a large sum of money for this course, so make the most of it.

Transportation:

Many of the labs are off campus. You are responsible for getting to these locations on time. The locations are nearby (e.g., Pandapas Pond) and the class web page has maps to all locations. We encourage you to carpool. If you do not have a car and need help arranging a ride, let us know. Please plan ahead (e.g., be sure you have gas) and be sure you know where you are going.

Dendrology Lab Schedule

Dates	Laboratory # and Site
Aug. 23, 24	1 – On Campus
Aug. 30, 31	2 – On Campus
Sept. 6, 7	3 – On Campus
Sept. 13, 14	4 – Mid-County Park
Sept. 20, 21	5 – On Campus
Sept. 27, 28	6 – On Campus
Oct. 4, 5	**7 – Midterm Outdoor Exam**
Oct. 11, 12	8 – Pandapas Pond, lower lot
Oct. 18, 19	9 – Seiler Home
Oct. 25, 26	10 – Pandapas Pond, upper lot
Nov. 1, 2	11 – On Campus
Nov. 8, 9	12 – Pandapas Pond, lower lot
Nov. 15, 16	13 – Mid-County Park
Nov. 29. 30	14 – Review/Bonus Day
Dec. 6, 7	15 – **Final Outdoor Exam**

Lab #1: On Campus

Family	Botanical Name	Common Name
Aceraceae	*Acer rubrum*	red maple
Aceraceae	*Acer saccharum*	sugar maple
Anacardiaceae	*Toxicodendron radicans*	poison-ivy
Cornaceae	*Cornus florida*	flowering dogwood
Fagaceae	*Quercus alba*	white oak
Oleaceae	*Fraxinus pennsylvanica*	green ash
Pinaceae	*Picea glauca*	white spruce
Pinaceae	*Pinus strobus*	eastern white pine
Pinaceae	*Abies concolor*	white fir
Pinaceae	*Picea abies*	Norway spruce
Platanaceae	*Platanus occidentalis*	American sycamore
Rosaceae	*Prunus serotina*	black cherry

Lab #2: On Campus

Family	Botanical Name	Common Name
Annonaceae	*Asimina triloba*	pawpaw
Aceraceae	*Acer negundo*	boxelder
Aceraceae	*Acer platanoides*	Norway maple
Aceraceae	*Acer saccharinum*	silver maple
Fagaceae	*Fagus sylvatica*	European beech
Fagaceae	*Fagus grandifolia*	American beech
Hamamelidaceae	*Liquidambar styraciflua*	sweetgum
Lauraceae	*Sassafras albidum*	sassafras
Magnoliaceae	*Liriodendron tulipifera*	yellow-poplar
Cornaceae	*Nyssa sylvatica*	blackgum
Rosaceae	*Prunus avium*	sweet cherry
Salicaceae	*Salix babylonica*	weeping willow
Salicaceae	*Salix nigra*	black willow
Cupressaceae	*Metasequoia glyptostroboides*	dawn redwood

Lab #3: On Campus

Family	Botanical Name	Common Name
Betulaceae	*Betula lenta*	black (sweet) birch
Betulaceae	*Betula nigra*	river birch
Fabaceae	*Gleditsia triacanthos*	honeylocust
Fagaceae	*Castanea mollissima*	Chinese chestnut
Fagaceae	*Quercus montana*	chestnut oak
Fagaceae	*Quercus imbricaria*	shingle oak
Fagaceae	*Quercus macrocarpa*	bur oak
Fagaceae	*Quercus palustris*	pin oak
Fagaceae	*Quercus phellos*	willow oak
Fagaceae	*Quercus velutina*	black oak
Pinaceae	*Tsuga canadensis*	eastern hemlock
Rosaceae	*Pyrus calleryana*	Callery pear
Fabaceae	*Gymnocladus dioicus*	Kentucky coffeetree

NOTE: Because taxonomists occasionally rename species, a botanical name on the syllabus may not match what is in your book. The syllabus has the most updated name.

Lab #4: Mid-County Park and Pool

Family	Botanical Name	Common Name
Betulaceae	*Ostrya virginiana*	eastern hophornbeam
Fabaceae	*Cercis canadensis*	eastern redbud
Fabaceae	*Robinia pseudoacacia*	black locust
Caprifoliaceae	*Viburnum prunifolium*	blackhaw
Oleaceae	*Fraxinus americana*	white ash
Fagaceae	*Quercus rubra*	northern red oak
Fagaceae	*Quercus muehlenbergii*	Chinkapin oak
Cornaceae	*Cornus alternifolia*	alternate-leaf dogwood
Juglandaceae	*Juglans nigra*	black walnut
Pinaceae	*Pinus virginiana*	Virginia pine
Lauraceae	*Lindera benzoin*	spicebush
Magnoliaceae	*Magnolia acuminata*	cucumbertree

Lab #5: On Campus

Family	Botanical Name	Common Name
Betulaceae	*Betula papyrifera*	paper birch
Betulaceae	*Betula populifolia*	gray birch
Betulaceae	*Carpinus caroliniana*	hornbeam
Bignoniaceae	*Catalpa speciosa*	catalpa
Cupressaceae	*Juniperus virginiana*	eastern redcedar
Ebenaceae	*Diospyros virginiana*	common persimmon
Juglandaceae	*Carya glabra*	pignut hickory
Juglandaceae	*Carya ovata*	shagbark hickory
Juglandaceae	*Carya tomentosa (alba)*	mockernut hickory
Juglandaceae	*Carya cordiformis*	bitternut hickory
Pinaceae	*Larix decidua*	European larch
Rosaceae	*Crataegus* spp.	hawthorn
Tiliaceae	*Tilia americana*	American basswood
Tiliaceae	*Tilia cordata*	littleleaf linden

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Lab #6: On Campus

Family	Botanical Name	Common Name
Cornaceae	*Cornus kousa*	kousa dogwood
Ericaceae	*Rhododendron maximum*	great rhododendron
Ginkgoaceae	*Ginkgo biloba*	ginkgo
Magnoliaceae	*Magnolia grandiflora*	southern magnolia
Pinaceae	*Picea pungens*	blue spruce
Pinaceae	*Pinus nigra*	Austrian pine
Ulmaceae	*Celtis occidentalis*	hackberry
Ulmaceae	*Ulmus americana*	American elm
Ulmaceae	*Ulmus parvifolia*	Chinese elm
Ulmaceae	*Ulmus pumila*	Siberian elm
Ulmaceae	*Ulmus rubra*	slippery elm
Ulmaceae	*Zelkova serrata*	Japanese zelkova
Pinaceae	*Pinus palustris*	longleaf pine

Lab #7: Midterm Outdoor Exam

Lab #8: Pandapas Pond, lower lot

Family	Botanical Name	Common Name
Rosaceae	*Rubus occidentalis*	black raspberry
Ericaceae	*Oxydendrum arboreum*	sourwood
Betulaceae	*Alnus serrulata*	hazel alder
Cornaceae	*Cornus amomum*	silky dogwood
Ericaceae	*Kalmia latifolia*	mountain laurel
Ericaceae	*Vaccinium pallidum*	low bush blueberry
Ericaceae	*Rhododendron calendulaceum*	flame azalea
Pinaceae	*Pinus pungens*	Table Mountain pine
Fagaceae	*Quercus ilicifolia*	bear oak

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Lab #9: Seiler Home

Family	Botanical Name	Common Name
Anacardiaceae	*Rhus glabra*	smooth sumac
Anacardiaceae	*Rhus typhina*	staghorn sumac
Anacardiaceae	*Rhus copallinum (copallina)*	shining sumac
Salicaceae	*Populus grandidentata*	bigtooth aspen
Fagaceae	*Quercus stellata*	post oak
Fagaceae	*Castanea pumila*	eastern chinkapin
Pinaceae	*Picea rubens*	red spruce
Pinaceae	*Pinus taeda*	loblolly pine
Pinaceae	*Pinus resinosa*	red pine
Betulaceae	*Betula alleghaniensis*	yellow birch
Rosaceae	*Malus pumila*	common apple
Rosaceae	*Rubus allegheniensis*	Alleghany blackberry
Pinaceae	*Picea mariana*	black spruce

Lab #10: Pandapas Pond, upper lot

Family	Botanical Name	Common Name
Myricaceae	*Comptonia perigrina*	sweetfern
Fagaceae	*Castanea dentata*	American chestnut
Fagaceae	*Quercus coccinea*	scarlet oak
Hamamelidaceae	*Hamamelis virginiana*	witch-hazel
Rosaceae	*Amelanchier arborea*	downy serviceberry
Aceraceae	*Acer pensylvanicum*	striped maple
Pinaceae	*Pinus rigida*	pitch pine

Lab #11: On Campus

Family	Botanical Name	Common Name
Aceraceae	*Acer palmatum*	Japanese maple
Aquifoliaceae	*Ilex opaca*	American holly
Cupressaceae	*Thuja occidentalis*	northern white-cedar
Moraceae	*Morus rubra*	red mulberry
Pinaceae	*Abies balsamea*	balsam fir
Pinaceae	*Abies fraseri*	Fraser fir
Pinaceae	*Pinus thunbergii*	Japanese black pine
Pinaceae	*Pseudotsuga menziesii*	Douglas-fir
Pinaceae	*Tsuga caroliniana*	Carolina hemlock
Taxaceae	*Taxus* spp.	yew
Cupressaceae	*Taxodium distichum*	baldcypress
Scrophulariaceae	*Paulownia tomentosa*	royal paulownia
Pinaceae	*Pinus sylvestris*	Scots pine

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Lab #12: Pandapas Pond, lower lot

Family	Botanical Name	Common Name
Caprifoliaceae	*Viburnum acerifolium*	mapleleaf viburnum
Caprifoliaceae	*Sambucus nigra*	American elderberry
Ericaceae	*Gaultheria procumbens*	teaberry
Rubiaceae	*Mitchella repens*	partridge berry
Smilacaceae	*Smilax rotundifolia*	greenbrier
Ericaceae	*Epigaea repens*	Trailing arbutus
Elaeagnaceae	*Elaeagnus umbellata*	autumn-olive
Vitaceae	*Parthenocissus quinquefolia*	Virginia creeper

Lab #13: Mid-County Park and Pool

Family	Botanical Name	Common Name
Caprifoliaceae	*Lonicera maackii*	Amur honeysuckle
Caprifoliaceae	*Lonicera japonica*	Japanese honeysuckle
Celastraceae	*Celastrus* spp.	bittersweet
Hippocastanaceae	*Aesculus flava*	yellow buckeye
Oleaceae	*Ligustrum* spp.	privet
Pinaceae	*Pinus echinata*	shortleaf pine
Rosaceae	*Rosa multiflora*	multiflora rose
Vitaceae	*Vitis* spp.	grape
Simaroubaceae	*Ailanthus altissima*	tree-of-heaven

Lab #14: Review

Lab #15: Final location to be determined

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