

FORESTRY 232 – SILVICS AND DENDROLOGY
Fall 2020 SYLLABUS

Lecture Instructor: Dr. Richard Hauer, 323 CNR, rhauer@uwsp.edu, 715-346-3642 (office)

Office Hours: Monday 8:00 – 8:50 am, Wednesday 8:00 – 9:50 am. Students are encouraged to schedule an appointment in case I am away due to scheduled or unscheduled conflicts. It is recommended that you seek assistance if needed.

Course Meeting Time and Location: Lecture meets Virtually with lectures posted in CANVAS. An online session on Wednesday from 1:00 – 1:50 pm is designed as a question and answer session and really talk anything about trees. Labs meet in two formats that fit your situation: in person outside or 100% online. See page 3 for the lab syllabus for assigned lab meeting time.

Attendance: Did you know that students who attend class regularly do better. Pick a schedule that works and try to stick to it. Active participation in class is expected and greatly increases the odds you will master a subject. Absence from an exam or quiz will result in a zero unless you make prior approval or arrangements.

Learning Objectives: After completion of this course you should be able to:

- 1) Identify trees and shrubs in the field by leaf, twig, fruit, bark, and other relevant attributes.
- 2) Identify woody plants with a key by twig and fruit.
- 3) Associate plant range and site conditions with covered tree and shrub species.
- 4) Predict the likelihood of plant tolerance to site conditions in urban and rural forests.
- 5) Associate important silvics and morphological characteristics with plants covered in the class and their uses in urban and rural forests.

Grade Policy: Grades are based on exams and laboratory quizzes as follows:

<u>Evaluation Area</u>	<u>% of Grade</u>
Lab – Quizzes (10 quizzes)	55%
Lecture – Exams (5 exams)	45%

<u>Mean Score</u>	<u>Letter Grade</u>	<u>Mean Score</u>	<u>Letter Grade</u>
100 - 93	A	79 - 78	C+
92 - 90	A-	77 - 73	C
89 - 88	B+	72 - 70	C-
87 - 83	B	69 - 68	D+
82 - 80	B-	67 - 60	D
		<60	F

Texts: Assignments are from the following texts as indicated in the attached outline:

Barnes, B.V., D. R. Zak, S. R. Denton, and S. H. Spurr. 1998. Forest Ecology. 4th ed. John Wiley & Sons, New York, N.Y. 774 pp.

Hardin, J.W., Leopold, D.J., and F.W. White. 2001. Harlow & Harrar's Textbook of Dendrology. 9th Ed. McGraw-Hill Book Co., New York, N.Y. 534 pp.

On line: The following links are useful on-line references for silvics and woody plant ID

Silvics of North America: https://www.srs.fs.usda.gov/pubs/misc/ag_654/table_of_contents.htm

Flora of Wisconsin: <http://wisflora.herbarium.wisc.edu/>

Trees of Wisconsin: http://www.uwgb.edu/biodiversity/herbarium/trees/tree_list01.htm

Dendrology Factsheets at Virginia Tech: <https://dendro.cnre.vt.edu/dendrology/factsheets.cfm>

University of Connecticut: <http://hort.uconn.edu/>

Oregon State University Plants: <http://landscapeplants.oregonstate.edu/>

Gymnosperm Database: <http://www.conifers.org/>

USDA Plants Database : <http://plants.usda.gov/>

The International Plant Names Index: <http://www.ipni.org/>

Course Location: Canvas Portal (<https://www.uwsp.edu/canvas/Pages/default.aspx>)

Lecture Schedule

<u>Dates</u>	<u>Topic (# of Lectures)</u>	<u>Readings</u>
Sept 2	Introduction and Silvics Concepts	Barnes et al. Ch. 1
Sept 7	No Lecture, Labor Day	
Sept 9	Introduction and Silvics Concepts	Barnes et al. Ch. 1
Sept 14	Introduction and Silvics Concepts	Hardin et al. Ch. 6
Sept 16	Systematics <u>Gymnosperms:</u> Ginkgoaceae, Taxaceae	Barnes et al. Ch. 4 Hardin Ch2, pp. 97-100
Sept 21	Pinaceae	Hardin pp. 101-208
Sept 23	Hour Exam (1)	Hardin pp. 101-208
Sept 28	Pinaceae	Hardin pp. 101-208
Sept 30	Pinaceae	Hardin pp. 101-208
Oct 5	Pinaceae	Hardin pp. 101-208
Oct 7	Cupressaceae	Hardin pp. 209-242
Oct 12	Cupressaceae	Hardin pp. 209-242
Oct 14	Hour Exam (2)	
Oct 19	<u>Angiosperms:</u> Magnoliaceae	Hardin pp. 243-254
Oct 21	Lauraceae, Platanaceae	Hardin pp. 255-263
Oct 26	Hamamelidaceae, Ulmaceae	Hardin pp. 263-278
Oct 28	Moraceae, Juglandaceae	Hardin pp. 278-304
Nov 2	Juglandaceae, Fagaceae	Hardin pp. 305-359
Nov 4	Hour Exam (3)	
Nov 9	Fagaceae, Betulaceae	Hardin pp. 305-359
Nov 11	Betulaceae	Hardin pp. 359-375
Nov 16	Tiliaceae, Salicaceae	Hardin pp. 379-408
Nov 18	Ericaceae, Ebenaceae, Rosaceae	Hardin pp. 409-415
Nov 23	Rosaceae	Hardin pp. 409-415
Nov 25	Hour Exam (4)	
Nov 30	Fabaceae	Hardin pp. 415-425
Dec 2	Hippocastanaceae, Sapindaceae (syn Aceraceae)	Hardin pp. 439-459
Dec 7	Hippocastanaceae, Sapindaceae (syn Aceraceae)	Hardin pp. 439-459
Dec 9	Oleaceae, Bignoniaceae	Hardin pp. 459-482
Dec 17	Hour Exam (5) (Thursday 8:00 am – 10:00 am)	

Lab Schedule (In Person)

Lab Instructors

Dr. Richard Hauer, 323 TNR, rhauer@uwsp.edu, 715-346-3642
Dr. James Cook, 242 TNR, jcook@uwsp.edu, 715-346-2269
Dr. Holly Petrillo, 363 TNR, Holly.Petrillo@uwsp.edu, 715-346-4230
Dr. Melinda Vokoun, 376 TNR, mvokoun@uwsp.edu, 715-346-2342

Lab sections (Instructor)

1 – W 8:00 – 10:50 (Vokoun)
2 – M 9:00 – 11:50 (Cook)
3 – R 9:00 – 11:50 (Vokoun)
4 – M 2:00 – 4:50 (Hauer)
5 – T 2:00 – 4:50 (Petrillo)

Date (week starting) Topic

Sept. 2 On-line	Introduction (Ch. 3, 4, 5, & 7 in Textbook of Dendrology) Campus
Sept. 8, 9, 10, 14	Intro Quiz (1%) 100% in CANVAS
Sept. 15, 16, 17, 21	Quiz 1 (5%) Campus and Schmeeckle Reserve
Sept 22, 23, 24, 28	Quiz 2 (5%) Campus and Schmeeckle Reserve
Sept 29, 30, Oct 1, 5	Quiz 3 (5%) Campus and Schmeeckle Reserve
Oct 6, 7, 8, 12	Quiz 4 (5%) Campus and Schmeeckle Reserve
Oct 13, 14, 15, 19	Quiz 5 (5%) Campus and Schmeeckle Reserve
Oct 20, 21, 22, 26	Quiz 6 (5%) Campus and Schmeeckle Reserve
Oct 27, 28, 29, Nov 2	Quiz 7 (5%) Campus and Schmeeckle Reserve
Nov 3, 4, 5, 9	Quiz 8 (5%) Campus and Schmeeckle Reserve
Nov 10, 11, 12, 16	Quiz 9 (5%) Campus and Schmeeckle Reserve
Nov 17, 18, 19, 23	Twig Quiz (10%) (100% in CANVAS)
Nov 24, 25, 26, 30	No Lab (Thanksgiving Break)
Dec 1, 2, 3, 7	Quiz (10%) Cones and Fruit (100% in CANVAS)

**The lowest two
quiz scores will
be dropped,
with 7 quizzes
worth 35% of
your course
grade.**

Lab grades: Lab quizzes make up 55% of your course grade. Each field lab quiz is weighted 5% equally (35% total), twig lab (10% total), and cone/fruit (10% total) will be combined to determine your lab grade. All field quizzes are closed book and you will need to know common name, genus, species, and family for species seen previously on fieldtrips. Species covered in lab generally will have been reviewed in the field as well, but regardless, the same information is required.

Text and supplies for lab:(Available online). Harlow, William M. 1946. Fruit Key and Twig Key. Dover Publications, Inc.
Barnes, B.V., and W.H. Wagner, Jr. 2004. Michigan Trees, Revised and Updated. The University of Michigan Press, Ann Arbor, Michigan is very helpful, but *optional*.

Lab Schedule (100% Distance Learning)

Lab Instructors

Dr. Richard Hauer, 323 TNR, rhauer@uwsp.edu, 715-346-3642
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Dr. Holly Petrillo, 363 TNR, Holly.Petrillo@uwsp.edu, 715-346-4230
Dr. Melinda Vokoun, 376 TNR, mvokoun@uwsp.edu, 715-346-2342

Lab sections (Instructor)

1 – W 8:00 – 10:50 (Vokoun)
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4 – M 2:00 – 4:50 (Hauer)
5 – T 2:00 – 4:50 (Petrillo)

Date (week starting) Topic

Sept. 2 On-line	Introduction (Ch. 3, 4, 5, & 7 in Textbook of Dendrology) Campus
Sept. 8, 9, 10, 14	Intro Quiz (1%) 100% in CANVAS
Sept. 15, 16, 17, 21	Quiz 1 (3% / 2%) CANVAS Quiz / Facts Sheets
Sept 22, 23, 24, 28	Quiz 2 (3% / 2%) CANVAS Quiz / Facts Sheets
Sept 29, 30, Oct 1, 5	Quiz 3 (3% / 2%) CANVAS Quiz / Facts Sheets
Oct 6, 7, 8, 12	Quiz 4 (3% / 2%) CANVAS Quiz / Facts Sheets
Oct 13, 14, 15, 19	Quiz 5 (3% / 2%) CANVAS Quiz / Facts Sheets
Oct 20, 21, 22, 26	Quiz 6 (3% / 2%) CANVAS Quiz / Facts Sheets
Oct 27, 28, 29, Nov 2	Quiz 7 (3% / 2%) CANVAS Quiz / Facts Sheets
Nov 3, 4, 5, 9	Quiz 8 (3% / 2%) CANVAS Quiz / Facts Sheets
Nov 10, 11, 12, 16	Quiz 9 (3% / 2%) CANVAS Quiz / Facts Sheets
Nov 17, 18, 19, 23	Twig Quiz (10%) (100% in CANVAS)
Nov 24, 25, 26, 30	No Lab (Thanksgiving Break)
Dec 1, 2, 3, 7	Quiz (10%) Cones and Fruit (100% in CANVAS)

The lowest two quiz scores and fact sheet scores will be dropped, with all worth 35% of your course grade.

Lab grades: Lab quizzes make up 55% of your course grade. Each field lab quiz is weighted 3% equally (21% total), facts sheets weighted 2% (14% total), twig lab (10% total), and cone/fruit (10% total) will be combined to determine your lab grade. All field quizzes are closed book and you will need to know common name, genus, species, and family for species seen previously on fieldtrips. Species covered in lab generally will have been reviewed in the field as well, but regardless, the same information is required.

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