INSTRUCTOR: Dr. Thomas Kuzmic

OFFICE & CONTACT INFO: Office: 015 Agricultural Hall
Office Hours: Appointments have priority; walk-ins welcome as available.
   Monday: 1:00-4:30pm
   Tuesday: 1:00-4:30pm
   Wednesday: none
   Thursday: 1:00-4:30pm
   Friday: 11:30am-noon
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TIME & PLACE: Lecture: Monday & Wednesday, 9:30 - 10:20am, 169 Ag Hall
Lab: Wednesday, 1:30 - 5:20pm, 019 Ag Hall

COURSE DESCRIPTION: Taxonomy, identification and distribution of major forest trees, shrubs and vines of the United States, including their natural range, ecological characteristics, environmental site requirements, ecosystem services, and utilization by people for goods and services.

COURSE OBJECTIVES: By the completion of this course, you should be able to demonstrate your knowledge, skills and abilities in the following:
- Understand basic taxonomic principles, schemes, and terminology used in the identification of forest trees and shrubs.
- Describe and distinguish between major taxonomic families and genera of forest tree, shrub and vine species in the United States.
- Know the taxonomy, geographic distribution, ecological characteristics, environmental requirements, associate species, and principal uses of up to 180 different tree, shrub and vine species presented in the lecture.
- Identify up to 160 tree, shrub and vine species in the field and/or from preserved specimens in the lab by utilizing morphological characteristics including leaf, twig, bark, fruit or cone.
COURSE FORMAT: Two indoor lectures per week complemented by PowerPoint slides and one four-hour laboratory each week that is predominantly field-based. PowerPoints will be posted on CANVAS the OSU on-line learning site.

Lectures will focus on principles of taxonomy and the organization of tree and shrub species across a range of taxonomic families and genera, and across a range of landscape regions and environmental conditions. Principal uses and values associated with each species will be presented.

Labs will stress the identification of species and the application of taxonomic terminology.
- Up to 15 new tree, shrub and vine species will be introduced each week during lab.
- Students are expected to learn the new species weekly, and to retain a cumulative knowledge and ability to identify all previously covered species throughout the semester.
- Field labs will be held in any and all weather, and in all field conditions from city streets to dense woodlands and creek bottoms. Students are expected to dress appropriately for the weather conditions on lab days. Always be prepared with a water bottle on hot days early in the semester; raingear on days when rain is in the forecast; and a jacket, hat and gloves on days when cold weather may occur later in the semester. Sturdy footgear is required for all labs. Open-toe sandals will never be suitable for lab.

Under all circumstances, you are responsible for all missed material if you happen to miss a class or lab session. There will be no make-up lectures or labs given. You will have to rely on the PowerPoints, species information in the textbook and manual, and specimens on display in the classroom to catch up and keep up.

TEXTBOOKS: The following texts are required of all students. Both are available at the Student Union Bookstore.

by Hardin, Leopold & White
McGraw-Hill

Dendrology Manual, Silver Anniversary Edition, Revised 2017 (with a yellow cover)
by Kuzmic

***Do not buy or use any previous edition!

LAB GEAR: Each student will need the following items for lab:
- 10X hand lens (pocket-size or wear-around-the-neck)
- Pocketknife
- Plastic bag(s) for collecting field specimens for personal study
EVALUATION & GRADING:

Your performance on lecture exams, species identification quizzes in lab, and a lab final will be used to determine your course grade on the following basis. Equal weight will be given to the total points associated with lecture and lab in calculating final course grades.

3 Lecture Exams @100 points ................................................................. 300 points
10 Lab Species ID Quizzes @100 pts ...... 1000 points
Lab Species ID Final ................................................................. 500 points

1500 pts ÷ 5 = 300 points

TOTAL ........................................................................................................... 600 points

Final course grades will be earned as follows:

A = 540 - 600 points (90-100%)
B = 480 - 539 points (80-89%)
C = 420 - 479 points (70-79%)
D = 360 - 419 points (60-69%)
F = below 360 points (0-59%)

Lecture Exams are scheduled for the following dates:
- Monday, September 23 (Week #6 at regular class time)
- Wednesday, October 30 (Week #11 at regular class time)
- Friday, December 13 (Final Exam Week, 8:00-9:50am)

Lecture Exam Protocol & Policy:

- Will cover course content related to dendrological theory, terminology, principles, and characteristics of families, genera, and species as presented in the lecture portion of the course.
- Exams will not be comprehensive. Each will only include the new material covered since the preceding exam.
- Though you will never be given an actual tree specimen to identify on an exam, you will be expected to distinguish between species, genera and families of trees based on morphological characteristics or other features (such as geographic range, ecological conditions, uses, etc.) as presented in lecture.
- You may not have any books or notes, or a phone, computer, or other electronic device in hand, on the table, or visible during an exam.
- Failure to take an exam on the scheduled dates will result in a "zero" score unless you have a predetermined valid reason and excused absence that you have cleared in advance with the instructor, or within a day afterwards. In such cases, a make-up exam must be completed within two days of the scheduled exam that was missed.
Species Identification Quiz Protocol & Policy:

- Quizzes will be administered weekly in lab, starting with the second lab during week #2.
- They will test you solely in the identification of physical specimens of tree, shrub and vine species (whole plant or any part of the plant).
- Quizzes may be held indoors, outdoors, or both.
- Each lab quiz will be comprised of ten specimens, for which you will have to write the taxonomic family, genus, specific epithet, and common name for each (all correctly spelled and properly capitalized). Names must be spelled out in full, with no abbreviations. No need to underline or write in italics.
- Ten points are allocated to each quiz specimen as follows:
  - Family: 2 points
  - Genus: 2 points
  - Specific epithet: 3 points
  - Common name: 3 points
  - One-point deduction for the misspelling of any of the four. If it is badly misspelled, then it will be considered as completely wrong.
- Species coverage for each lab quiz will be cumulative and comprehensive for all species covered during lab to date.
- There will be no "unknowns" on a quiz. However, repeat species are possible on any quiz.
- Quiz specimens may be presented at any time during the course of the lab session.
- There will be twelve lab quizzes. Ultimately your two lowest quiz scores will be dropped from your quiz point total.
- If you miss a quiz for any reason, it will be counted as a dropped quiz score.
- Graded quizzes will be returned at the next class on Monday morning. You will have 24 hours to review your quiz and contest a perceived grading error. After 24 hours, the score stands as recorded.
- Students must work independently during quizzes:
  - No talking
  - No helping
  - No pointing
  - No sharing
  - No notes, manuals or books
  - No cameras or phones
  - No nothing!
  Any breech will result in a zero score for the specimen.
  A second breech during a quiz will result in a zero for the quiz and a referral to the OSU Academic Integrity Office.
**Lab Species Identification Final:**
- **Wednesday, December 4** (Week #16 or "Pre-Finals Week" at the regular lab time).
- Will follow the same protocol used for lab quizzes.
- Will include 50 specimens and be comprehensive for all species presented during all labs spanning the full semester.
- Failure to take the lab species identification final on December 5 will result in a "zero" score. No exceptions or excuses will be accepted. No make-up is possible.

**FEE IN ADDITION** A transportation fee (apprx. $24) will be assessed to each student’s

**TO TUITION:** Bursar account to cover the use of University vehicles during labs.

**OSU POLICY:** We will adhere to the standard University policy and schedule for *dropping or withdrawing from class* and for *academic integrity* (see next section) as printed in the University catalogue, the official OSU Syllabus Attachment (which is attached), and posted on the OSU website.

**ACADEMIC INTEGRITY:** I am committed to upholding OSU’s Academic Integrity Policy and you should be as well. I expect all students to align with the standards of academic integrity and ethical conduct as delineated in University Academic Regulation 6.12 in the OSU catalog and as presented at [www.academicintegrity.okstate.edu](http://www.academicintegrity.okstate.edu) on the OSU website. Behavior that violates the OSU academic integrity policy will not be tolerated and will be subject to disciplinary action.

**PEP-TALK:** Consider the following tips, advice and inspiration as you proceed through the course:

- **You will be absolutely crazy to ever voluntarily miss a lab!**
- In a way, studying dendrology is like studying a foreign language. Both require a lot of memorization. It is critical that you devote regular and considerable study time to the course on a daily basis---and even better, multiple times each day. This is not a course that involves logic and problem-solving. To learn it, you must engage considerable time in repetitive review and drill.
- Review the lab and field specimens on a regular basis, preferably daily.
- Review with one or more fellow students in the course, to revisit field specimens, to quiz each other, and to gain different perspectives, ideas, and gimmicks for learning names and for mastering species identification.
- Make "flash cards" to help you learn scientific names. Carry them with you wherever you go (to dinner, on a date, on a road-trip, to the laundromat, to Grandma's for Thanksgiving dinner, etc.) and
use them often (but not while driving or enjoying your turkey dinner). Review them during breaks between classes; while you are waiting in line somewhere; while you are waiting for a website to load; during half-time at a football game; first thing in the morning when you get up; and the last thing before you end the day. The more you review, the better!

♦ Make your own personal collection of leaves, twigs, fruits, and cones from the field specimens that are visited during lab, so that you can study them at home. Bring zip-lock baggies, twisty ties, tape, etc. to label specimens and keep them straight and organized. Take pictures of trees in the field with your camera or phone for good visual reference and recollection. **You may not take any of the lab specimens home, however!**

♦ Practice using the tree identification key in the manual. It will help sharpen your observation skills and your mastery of dendrological terminology.

♦ Read and use the textbook regularly!

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♦ Foresters! You should view this course as an important component of your forestry education. Trees are the tools of our forestry trade. If you cannot identify the trees where you will be working, whether it be the wild forest or the urban forest, it will be almost impossible to make sound management prescriptions and decisions.

♦ This course poses a worthy challenge to any student, and it requires a solid learning and time commitment. Regardless, you should view dendrology as a learning adventure filled with discovery and even a sense of wonder! It should be a pleasurable experience! Have fun becoming a **dendrologian**!

**WISDOM:**

"The sooner you fall behind, the more time you will have to catch up."  
-Anonymous

"Procrastination charts a course for frustration and failure."  
-Dr. K

"Dendrology was my favorite course as an undergraduate!"  
-Dr. K