HORT 306 Trees and Shrubs for Sustainable Built Environments
Course Syllabus, Fall 2018

Instructor: Dr. Michael Aloysius Arnold (http://aggie-horticulture/faculty/arnold.html)
Lecture: HFSB 102, Monday and Wednesday, 12:40 PM - 1:30 PM
Laboratories: Section 501,*110 HFSB, Tuesday, 10:00AM - 12:00PM
               Mr. Jonathan Caples assisting.
               Section 502,*110 HFSB, Tuesday, 1:00PM - 3:00PM.
               Mr. Jonathan Caples assisting.
               Section 503,*110 HFSB, Tuesday, 3:00PM - 5:00PM.
               Ms. Amanda Birnbaum assisting.
               Section 505,*110 HFSB, Wednesday, 3:00PM-5:00PM.
               Ms. Amanda Birnbaum assisting.
               *Note that most laboratory sessions will meet in 110 HFSB. However, laboratories
could meet at several locations on some occasions. Laboratory locations will be
announced in preceding lectures or laboratory sessions. If no location is
announced students should report to the classroom in 110 HFSB for that week's
laboratory. Wear clothing and shoes suitable for mild hiking conditions in the
garden and surrounding naturalized areas, long pants and no open toed shoes are
advised.

Offices and telephone numbers:

Dr. Michael Arnold, HFSB 207, 845-1499, Home telephone number is 690-0265, emergencies only, and life threatening emergencies only after 8:00 PM or before 7:00 AM.

Mr. Jonathan Caples, HFSB 418, office hours and contact information to be announced during his first laboratory period.

Ms. Amanda Birnbaum, HSFB 413, office hours and contact information to be announced during his first laboratory period.

Messages:

Messages may be left in Dr. Arnold's or the lab instructor’s mailboxes in HFSB 201.
Email messages may be sent to ma-arnold@tamu.edu for Dr. Arnold.

Office Hours:

Office hours for Dr. Arnold will be held for one hour each day from 11:00 AM - noon on Monday and 11:00 AM - noon on Wednesday, or by appointment (979-845-1499 or ma-arnold@tamu.edu).

Office hours for Mr. Caples and Ms. Birnbaum will be announced during their first laboratory periods.
Course Description:

HORT 306. Trees and Shrubs for Sustainable Built Environments. (2-2). Credit 3. Better known woody ornamental trees and shrubs; identification, morphology, classification, nomenclature and adaptability for use in landscape environments. Prerequisite: Sophomore, Junior, or Senior classification, or approval of instructor.

Integration of Course Objectives with SLO of Undergraduate Horticulture Degrees and University Student Learning Objectives (SLO): Specific SLO addressed for the BA in Horticulture and BS in Horticulture degrees are identified for each major objective. University SLO addressed are indicated collectively after the enumeration of degree specific SLO. Students will be expected to develop understanding and skill in the following areas:

1) Identify horticultural plant characteristics and their uses (BA Horticulture SLO I.1 & 2; BS Horticulture SLO I.1-3; University Core Objectives: critical thinking skills and empirical and quantitative skills)
   Learn to identify, using scientific names, a working palette of woody plants on the basis of their vegetative and reproductive morphology.
   Develop knowledge of design characteristics and environmental adaptability of important native and introduced woody species relating to their use in specific landscape situations.
   Evaluate the relationships among selected woody plants and their characteristics to maximize aesthetic effectiveness and ecosystem services as design elements in sustainable landscapes.

2) Integrate knowledge of movement of water, nutrients and energy through the biosphere and the resulting impacts on plant growth and physiology (BS Horticulture SLO II.1, 2, & 4; University Core Objectives: critical thinking skills and empirical and quantitative skills)
   Develop an understanding of the interactions among environments conditions, particularly maximal, minimal and sequential effects of temperature exposures, deficiencies of nutrients, precipitation regimes, light exposures, and constraints of the built environment on woody plant responses and management solutions related to landscape design, installation and maintenance.
   Understand the relationships among soil pH, nutrient content and nutrient availability and their importance in the selection of appropriate woody taxa for sustainable landscape designs.
   Recognize the importance of regional variation and changes in seasonal patterns of temperature and moisture availability in the selection of appropriate woody taxa for creating sustainable landscape designs in built environments.

3) Critically evaluate options for sustainable plant management, including natural, urban and engineered horticultural systems (BS Horticulture SLO III.1, 2, & 5; University Core Objectives: critical thinking skills and empirical and quantitative skills)
   Develop the ability to appropriately select and explain the reasons for the selection of appropriate woody plant taxa based on the intended use, desired design functions, potential ecological consequences, and the environmental constraints at the intended site of implementation for the design.
   Recognize environmental constraints to the production of woody plant taxa or to their growth in nursery production and built landscape environments and integrate that information into effective management and design choices.
   Evaluate the potential economic consequences and value associated with effective incorporation of woody plants in built environment designs and the potential for production practices, transportation, handling, planting, post-establishment cultivation and management decisions to impact these economic values.
4) **Evaluate the role of plants and flowers play in human well-being (BA Horticulture SLO II.1 & 2; University Core Objectives: critical thinking skills, communication skills, and social responsibility)**

Evaluate the ecosystem services and sociological benefits provided by various categories of woody plant taxa in landscape designs for built environments.

Be able to describe the interactions woody plants exhibit with their natural and built environments and assemble suitable design combinations to accommodate these interactions.

Develop an appreciation for the historical, cultural, and social importance of various taxa of woody plants grown in sustainable built environments and an ability to suitably integrate them into contemporary landscape designs.

5) **Analyze and critique the principles and elements of design (BA Horticulture SLO III.1-3; University Core Objectives: critical thinking skills and communication skills)**

Exhibit the ability to explain how incorporation of woody plant taxa in built environments contributes to the achievement of theoretical elements and principles of sustainable landscape design.

Distinguish the importance of and opportunities provided by the individual woody taxa covered in the course for incorporating various elements of design in built landscape settings.

Analyze the contributions of various woody taxa to the aesthetic value and conceptual development of sustainable landscape designs.

6) **Explain how care and handling affect horticultural crop quality (BA Horticulture SLO IV.3; University Core Objectives: critical thinking skills)**

Understand and describe how nursery production decisions, transportation practices, landscape establishment techniques, and post-installation management decisions impact the economic and ecosystem service values of woody landscape plants placed in built environments.

7) **Collect, manage, analyze and interpret data (BA Horticulture SLO VI.1, 3, & 4; BS Horticulture SLO 2, 3, & 6; University Core Objectives: critical thinking skills, communication skills, and empirical and quantitative skills)**

Develop skills in searching the published literature related to solving problems in the landscape and communicating these findings to colleagues and clientele.

Describe how growth rates and ultimate plant sizes impact possible design concepts and input requirements.

Analyze data to distinguish among research based data, expert opinions, and various unreliable sources of information related to utilization of woody landscape taxa in built environments.

8) **Communicate effectively in speaking and writing (BA Horticulture SLO VII.1 & 4; BS Horticulture SLO VI.1 & 4; University Core Objectives: communication skills)**

Effectively communicate your analysis of landscape challenges, plant selections for meeting these design challenges, and subsequent maintenance recommendations orally or in writing using acquired horticultural knowledge from this course, pertinent literature, site analysis, and/or data collection.

Communicate the reasons for your decisions related to the selection and utilization of woody plant taxa in a clear, logical and professional manner using formats appropriate for professional and scientific audiences as well as the general public. For instance, the use of scientific names for plants and technical terminology for plant morphology, physiology, taxonomy, and production, maintenance, and inclusion of woody plants in landscape designs would be important communication skills for professional and scientific uses, while the ability to use common plant names and descriptions of practices for establishing plants without the use of scientific jargon would be important for communicating with the general public.

9) **Demonstrate personal and social responsibility (BA Horticulture SLO IX.3 & 4; BS Horticulture SLO VIII.3 & 4; University Core Objectives: personal responsibility and social responsibility)**
Develop an appreciation for the roles of woody landscape plants in providing design elements in sustainable resource efficient regional, national, and global landscapes. Students should be able to defend the recommend suitable woody taxa for solving landscape challenges in a range of conditions from those encountered regionally to broader applications on a national and international scale.

Students will weigh the implications of choosing taxa that will present reduced potentials for adverse environmental and human impacts, such as avoiding species with invasive tendencies, high resource requirements, or potentials for poisoning of non-target animals or humans.

Students will demonstrate an ability to judge the importance of ethical practices in design of built environments and nursery production and maintenance of woody landscape plants.

**General Order of Lecture Topics Covered** (laboratory exercises support the lecture topics):

Introduction to the course: Lecture 1
General terminology and definitions: Lectures 1 & 2
Plant hardiness and environmental interactions: Lecture 3
Texas and USA regional environmental considerations: Home reading assignment for lectures 3 & 4
Common disease and pest problems in Texas urban and suburban landscapes: Lecture 4
Plant development and genetic variation related to plant utilization: Lecture 5
Introduction to design principles covered with the various groups of woody taxa: Lectures 5 & 6
Palms and cycads, special cultural considerations and unique design elements: Lectures 6 & 7*
Large and medium deciduous trees I: Lectures 8 & 9*
Large and medium deciduous trees II: Lectures 10 & 11*
Commonly encountered trees with significant landscape liabilities: Lectures 12 & 13*
Small deciduous trees and large deciduous shrubs I: Lectures 14 & 15*
Small deciduous trees and large deciduous shrubs II: Lectures 16 & 17*
Small and medium deciduous shrubs: Lectures 18 & 19*
Large and medium evergreen trees: Lectures 20 & 21*
Small evergreen trees and large evergreen shrubs I: Lectures 22 & 23*
Small evergreen trees and large evergreen shrubs II: Lectures 24 & 25*
Small evergreen shrubs: Lectures 26 & 27*
Semester wrap up and linkages to the spring course: Lecture 28

*Each category of design elements from lectures 6 to 27 will begin with discussions of the design applications, ecosystem services, cultural considerations and broader utilization concerns of the group as a whole, followed by detailed discussions of taxa for achieving the purposes of this class of design elements.

**Examination Procedures:**

**Course grade:**

Each student's grade will be based on a total of 2400 points for the semester. A standard grading scale will be utilized. However, the instructor reserves the right to curve individual exam or course grades upward if an individual or the class performance warrants such action. In no case will the curving of grades result in a worse grade than was earned using the standard scale enumerated herein. Do not count on a curved grading scale for the course. After teaching plant materials courses for over twenty years, the instructor has curved only a few exams. In order for an individual course grade to be considered for curving up to the next highest grade, a student must be within 1% (24 points) of the next highest grade and have not missed more than two labs and/or lectures (as evidenced by unexcused missed examinations, lecture
quizzes, lab quizzes, or bonus point opportunities). If the student has more than two unexcused absences from labs and/or lectures, then their grade will not be eligible for curving up. **Individualized extra credit work will not be assigned, put your efforts into the assigned work and general extra credit opportunities offered to all students in the course.**

**The tentative grading scale for the course is:**
- 2160 (90%) to 2400 points (100%) = A
- 1920 (80%) to 2159 points (89%) = B
- 1680 (70%) to 1919 points (79%) = C
- 1440 (60%) to 1679 points (69%) = D
- 0 (0%) to 1439 points (<60%) = F

**Point breakdown by testing instrument:**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Points</th>
<th>Approximate % course total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture exam I</td>
<td>250</td>
<td>10.4%</td>
</tr>
<tr>
<td>Lecture quizzes</td>
<td>550 (11 at 50 each)</td>
<td>22.9% (approx. 2.1% each)</td>
</tr>
<tr>
<td>Lecture final</td>
<td>400</td>
<td>16.7%</td>
</tr>
<tr>
<td><strong>Lecture subtotal</strong></td>
<td><strong>1200</strong></td>
<td><strong>50%</strong></td>
</tr>
<tr>
<td>Laboratory quizzes</td>
<td>900 (9 at 100 each)</td>
<td>37.5% (approx. 4.5% each)</td>
</tr>
<tr>
<td>Laboratory final</td>
<td>300</td>
<td>12.5%</td>
</tr>
<tr>
<td><strong>Laboratory subtotal</strong></td>
<td><strong>1200</strong></td>
<td><strong>50%</strong></td>
</tr>
<tr>
<td><strong>Course total</strong></td>
<td><strong>2400</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Lecture:**

**Lecture Exams:**

Lecture exams will emphasize ornamental/horticultural information concerning plants’ growth habit, ecological considerations, ornamental and cultural attributes, use as design components, origins, availability and commercial value of selected plant taxa in sustainable landscapes. Taxonomic classification of groups of plants and conceptual information regarding interactions among geography, global and local climatic conditions, prevalent weather patterns, and cultural practices that impact woody landscape plant selection and efficacy in regional built environments will be emphasized. Lecture exams will encompass materials presented in lecture, reading assignments in the textbook, and slide sets/handouts and from the class website. Students are expected to have read the sections of the required text relating to the topics and taxa covered in lecture, assigned readings are indicated on each lecture slide set which are posted prior to the scheduled lecture sessions. Weekly plant lists will be provided as handouts in laboratories and posted on the class website (http://aggie-horticulture.tamu.edu/syllabi/206/home/frameset.htm). All materials from the general topic lectures and all taxa covered on weekly plant lists will be fair game for the lecture exams. Only the taxa specifically indicated for inclusion in laboratories, consisting of about 20 taxa per list will be covered on laboratory identification quizzes. Laboratory quizzes are cumulative. Lecture exams will be cumulative, but emphasize the material covered since the previous exam. Lecture exams and the lecture final will consist of multiple choice, fill in the blank, lists of requested information for various landscape scenarios, true/false, matching, labeling, design suggestions and/or short essay questions. The
lecture final will generally be more comprehensive in nature than the first lecture exam or lecture quizzes. No cell phones, computers, translators, or other electronic devices are allowed during any lecture or lab examination or quizzes. All work is expected to be independent, no group work is allowed unless expressly permitted by the instructor.

Two lecture exams will be given on the tentative dates indicated below:

- **Midterm** = 250 points. Wednesday October 10, 2018, in class.
- **Final** = 400 points. Monday December 10, 2018, 10:30 AM - 12:30 PM (university exam schedule).

**Lecture Quizzes, Take-Home Assignments, or Bonus Assignments:**

Past tracking of students' attendance at lecture and their performance on exams consistently indicated that good attendance tended to equate with good exam scores. Hence, ten weekly quizzes and/or short take-home assignments will be made at the instructor's discretion during the semester. Each quiz / assignment will be worth 50 points each (550 total points for the ten quiz / assignments) toward the final semester point total. These lecture quizzes will be not be cumulative, but include material covered since the last lecture quiz. This will give students an opportunity to assimilate the course information in "chunks" prior to testing on the cumulative midterm and final exams. Students must be present to take the quiz or personally hand in the assignment. One student may not hand in a quiz or take home assignment for another. In some cases these quizzes may be given as take-home assignments and must be turned in at the beginning of the next lecture (or other date and time as specified by the instructor). **All assignments are to be done individually unless you are directed otherwise by the instructor**; any collaboration on said quizzes or assignments unless you are directed to do so by the instructor will constitute plagiarism. Students are expressly forbidden from copying any quiz or assignment handouts for use by other students; no student is permitted to obtain a take-home quiz or assignment for another student; if students do so it will constitute cheating. **Late quizzes and assignments will not be accepted.** Quizzes will be based on questions from the previous lectures, assigned readings, or students will be asked to apply acquired skills and knowledge in problem solving scenarios. Assignments will be made that will enhance information gathering skills, incorporate current events into the course, or integrate plant materials use with landscape / interiorscape design concepts. A medical excuse from TAMU student health services or a qualified medical doctor, prior approval to be absent by the instructor, or a university approved absence is required to avoid zero points on missed quizzes, exams or assignments. **Self explanatory excuses for illness are not accepted.** The excused absences must be on the official university list or a written excuse from a licensed medical doctor is required, not just a note from another instructor. **If another instructor wishes to request consideration for excusing students from lecture or laboratory sessions in HORT 306 to attend field trips or other activities for another class, approval must be requested in writing and approved by the HORT 306 instructor in advance of the activity. The activity must be on the official university list or approved by the HORT 306 instructor in advance of the activity before the excuse will be considered valid.** Unexcused absences during quizzes or assignments will result in a score of zero points for that quiz or assignment. Students are not requested by the HORT 306 instructor to miss time from other classes' lectures or laboratories, the same consideration is expected related to removal of students from the HORT 306 lectures and labs.
Laboratory:
Announced Quizzes:

Eleven weekly plant identification quizzes will be given beginning the second week of classes. Each quiz will be worth 100 points. The first nine quizzes are required. The remaining two quizzes are intended as make-ups for excused absences during the prior nine quizzes. In the event that a student has not had two or more excused absences from the first nine quizzes, that student may take one or both of the make-up quizzes and use them to replace their lowest respective scores on the first nine quizzes. Thus, each individual's best 9 quizzes (of 11 possible) will count toward the final grade. Unexcused absence during a quiz will result in zero points for that quiz. Documentation for excused absences as previously defined will be required to be presented to the course instructor (Dr. Arnold) within two working days of returning to classes. If more than two excused absences are approved, the 900 point total for laboratory quizzes will be based on the average performance achieved on those quizzes that were taken. Prorated quiz grades will be assigned for students only if there have been three or four excused absences for laboratory quizzes. If more than four excused or unexcused quizzes are missed, an incomplete may be assigned for the course at the instructor’s discretion.

The first laboratory quiz will test your knowledge of the correct writing of scientific and common names of plants and identification of morphological traits of plants discussed in the initial laboratory and assigned lecture readings. Each of the succeeding quizzes will consist of 10 plants or cuttings (10 points per plant). Students will be expected to know the scientific (family, genus, specific epithet, and subtaxa if covered; 8 points) and common name (2 points) of each plant species (10 points total). Each misspelled word will count one point off. Omitting appropriate punctuation (single quotes, hyphens, periods, etc.) or adding unneeded punctuation counts as a spelling error. Laboratory quizzes will account for 900 total points toward the final grade.

Bonus plants may be added to quizzes at the discretion of the laboratory instructors. Bonus plants can only be used to increase students’ quiz totals, not decrease them. Note that the same plant taxon may occur more than once on a given quiz. Lab quizzes are not cumulative, covering the most recent group of taxa covered, however bonus quiz material is cumulative throughout the semester. In addition to the names of plants that we have formally covered in laboratories, bonus questions may include family names or the genus name for a closely related species to those that we have formally studied in laboratory.

Laboratories and quizzes will be held rain or shine, so dress appropriately and bring pencils (ink will run if wet). Cuttings and/or potted specimens of the species covered for the week will be placed in the laboratory classroom in HFSB 110 or an appropriate greenhouse prior to the first laboratory each week. These specimens will be retained in the classroom or the greenhouse until after the final lab of the week. After this time students will need to go to the textbook or course website for images to study or access the plant images on the Plant Picture Pages section of the class website. Laboratory instructor’s decisions on laboratory quizzes are final. Print legibly (print, no script), illegible answers count as incorrect answers.

Laboratory grading for scientific and common names on laboratory quizzes and lab final:
Each plant is worth 10 points, which are awarded as follows:

**Straight species (or species type):**

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceraceae</td>
<td>Acer rubrum</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Red Maple</td>
<td>2</td>
</tr>
</tbody>
</table>


**Subspecies, variety, or forma of a species;**

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bignoniaceae</td>
<td><em>Chilopsis linearis</em> subsp. <em>arcuata</em></td>
<td>West Texas Desert Willow</td>
</tr>
<tr>
<td>Malvaceae</td>
<td><em>Malvaviscus arboreus</em> var. <em>mexicanus</em></td>
<td>Giant Turk’s Cap</td>
</tr>
<tr>
<td>Caprifoliaceae</td>
<td><em>Viburnum plicatum</em> f. <em>tomentosum</em></td>
<td>Doublefile Viburnum</td>
</tr>
</tbody>
</table>

**Cultivar of a species;**

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bignoniaceae</td>
<td><em>Chilopsis linearis</em> ‘Dark Storm’</td>
<td>Dark Storm Desert Willow</td>
</tr>
</tbody>
</table>

**Cultivar of a subspecies, variety or forma;**

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabaceae</td>
<td><em>Gleditsia triacanthos</em> var. <em>inermis</em> ‘Skyline’</td>
<td>Skyline Thornless Common Honeylocust</td>
</tr>
</tbody>
</table>

Common names must include all words in the common name in the correct order to receive credit for the common name. One point will be deducted for each misspelled word, total points will not go below zero. Leaving out the “X” on intergeneric hybrids, “x” on intrageneric hybrids, or single quotation marks on cultivars counts as a 1 point spelling error each. Leaving out the subtaxa designations ("subsp.", “var.”, or “f.”), or indicating them improperly, counts as a 1 point spelling error.

**Laboratory Final:**

*The lab final will each consist of 30 potted plants or cuttings,* with each plant being graded as described on the quizzes. The lab final will contribute a total of 300 points toward the final grade. The lab final will be given during the regularly scheduled lab periods. Decisions on the lab final by the laboratory instructors are definitive. Be aware that the laboratory final is comprehensive, covering any materials studied in lab to that point in the semester.

**Makeup Policy:**

Makeup examinations or quizzes (see quiz section) will be granted only for excused absences. **Self explanatory excuses for illness are not accepted.** The excused absences must be on the official university list or a written excuse from a licensed medical doctor is required, not just a note from another instructor. If another instructor wishes to request consideration for excusing students from lecture or laboratory sessions in HORT 306 to attend field trips or other activities for another class, approval must be requested in writing and approved by the HORT 306 instructor in advance of the activity. The activity must be on the official university list or approved by the HORT 306 instructor in advance of the activity before the excuse will be considered valid. Unexcused absences during quizzes or assignments will result in a score of zero points for that quiz or assignment. Two opportunities for make-up laboratory
quizzes are provided during the laboratories at the end of the semester. Additional opportunities for makeup quizzes will be granted only if more than two excused absences are documented for a given student. Any lecture exam, lecture final or laboratory final that is excused in advance by the instructor for a valid conflict, must be made up prior to the regularly scheduled examination or another time agreeable to the instructor. *Makeups for lecture exams missed due to illness or other unforeseen circumstance deemed acceptable as an excuse by the instructor must be scheduled within two working days of the originally scheduled exam time.* Failure to contact the instructor (Dr. Arnold) within this two working day period, unless students are physically unable to do so, with a valid medical excuse will result in a zero for that examination, exceptions will be granted only if hospitalization or similar dire circumstances are required.

**Laboratory Safety Compliance:**

Students are required to log into their Howdy account and acknowledge the laboratory safety guidelines posted therein. Students will be provided with additional safety instructions at the first laboratory and as needed by their lecture or laboratory instructors.

**Required Textbook:**


**Supplementary lecture materials:**

A copy of this syllabus, weekly updated grades, and other supplementary materials can be accessed on the course website, http://aggie-horticulture.tamu.edu/syllabi/206/home/frameset.htm. Official revised plant lists will be posted on the HORT 306 class home page, these will be the official lists of plants covered during the semester. Adobe Acrobat files of the lecture PowerPoint presentations are available on the same web site. Color images and a synopsis of critical plant characteristics are available on the Plant Pictures Pages website (accessed through the class website) for most taxa. These taxa can be accessed via a searchable data base. Any reading materials not in the textbook will be placed on the HORT 306 website or provided as handouts in lecture. Check out the class website for other study materials as the semester progresses. All materials in handouts or on the class websites carry the same copyright reservations as materials presented in the text and syllabus.

**Laboratories:**

Laboratories will be conducted as in laboratory or on-campus field trips during the laboratory time periods. We will study specimens in the lab and at times walk to landscape locations of plant materials on or near the Texas A&M University campus. Labs will typically originate from 110 Horticulture/Forestry Sciences Building. Dress for mild hiking conditions (long pants, hiking boots or tennis shoes, and appropriate coats, gloves, raincoats, etc. for cool or wet weather and uneven terrain). Students will be notified of where the labs will meet in lecture, if no notification is given the labs will meet in 110 Horticulture/Forestry Sciences Building. All work is expected to be independent. **Laboratories will meet during the first week of classes.**
Attendance:

Attendance in both lecture and laboratory is mandatory. Due to the nature of the material, presentations and fresh plant samples, it is necessary for students to attend lectures and labs. Unexcused absences (as previously defined) during quizzes and exams will result in zeros for that quiz or exam. Students are expected to attend the laboratory section in which they are officially enrolled, unless prior permission is obtained from the course instructor (Dr. Arnold). See the syllabus sections on laboratory quizzes, lecture quizzes/assignments, makeup policies, and exam policies for information specific to attendance and these examination procedures.

Use of Electronic Devices in Lecture or Laboratory:

Cell phones should be turned off during lectures and laboratory periods. If a person’s cell phone rings, they are expected to turn it off or leave. Text messaging during lectures, labs or examinations is prohibited. No electronic devices (tablets, laptop computers, i-phones, translators, calculators, cell phones, etc.) may be used during any lectures sessions, exams, quizzes, or laboratory quizzes unless specifically requested in advance by student services on a student’s behalf or approved by the instructor. The single exception will be that a camera or cell phone is permitted to photograph the plants during laboratories, however taping of lectures or labs is not permitted. Photographing or recording of fellow students or the instructors is prohibited without their express permission.

Cheating and Plagiarism:

“An Aggie Does Not Lie, Cheat or Steal or Tolerate Those Who Do.” Cheating in any form during quizzes, take-home assignments, or exams, will result in a zero for that examination and possible other disciplinary actions per current TAMU Student Rules. Students observed giving or receiving answers during a quiz, exam, or assignment will receive a zero on that examination instrument. In the event of a repeat offense, an F* will be assigned for the course. Copying or plagiarism (including failure to cite sources) on the assignments will result in a zero for the assignment. Cheating and plagiarism defrauds the instructor and fellow students, is a violation of the TAMU honor code, and will not be tolerated. All infractions will be reported via the Aggie Honor Code system and may result in more severe disciplinary actions than outlined above. Resources for students to clarify what is considered cheating, plagiarism, and academic dishonesty can be accessed on the Aggie Honor Code webpage at http://aggiehonor.tamu.edu/.

Suggested Inclusions from Speaker of the TAMU Faculty Senate:

Copyright / plagiarism statement:

"The handouts used in this course are copyrighted. By “handouts”, I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, PowerPoint® presentations, images, websites, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy any of the course materials, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated."
If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty”.

**Americans With Disabilities Act (ADA) Policy Statement:**

“The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.” If you would like to be considered for disability accommodations, you must first register with disability services and provide medical documentation to support your request for consideration.

**Safety Guidelines:**

- Work only as authorized by your instructor. Do not perform unauthorized experiments/activities.
- Maintain a professional demeanor during laboratory and laboratory activities. Do not run, engage in horse-play, or otherwise act recklessly.
- Learn emergency procedures and know the locations of the nearest first aid station, eye wash, fire extinguishers, and/or chemical cleanup materials.
- Carefully read all instructions and thoroughly plan your work.
- Wear appropriate clothing and secure-fitting, hard-soled, closed-toe shoes during all laboratory and field sessions. Confine long hair and remove dangling jewelry. Store personal items in the area designated by your instructor.
- Keep work areas neat, clean, and free of clutter.
- Do not eat, drink, use tobacco products, chew gum, apply cosmetics, or handle contact lenses in the laboratory or greenhouse.
- Do not use cell phones, computers, or other personal electronic devices during laboratory or field sessions unless asked to do so by your instructor.
- Notify your instructor immediately if any type of accident or emergency occurs.
- Notify your instructor immediately and seek appropriate medical treatment if you are injured during a lecture, laboratory or field session.
- Be watchful during field sessions for hazards such as uneven soil surfaces, roots and other trip hazards, steep terrain and depressions, poison ivy, fire ants, bees, wasps, snakes, etc.
- Stay with the class group at all times unless directed to do otherwise by your instructor.
- Dress appropriately for bright sun or inclement weather conditions. Apply water-resistant sunscreen prior to outdoor or greenhouse activities.
- Do not operate equipment unless asked to do so by the instructor.
- Notify your instructor of any known allergies to insect bites or other plants or animals that may be encountered in the laboratory or field before laboratory of field sessions.
- Notify your instructor immediately and seek appropriate medical treatment if you are injured.


Study Hints For HORT 306:

- Learn to identify approximately 20 species covered each week within the week that they are covered. This will not only enhance performance on lab quizzes, but reinforce the lectures with the identification features of each species.

- Copies of lecture and laboratory PowerPoint® slides (Adobe Acrobat format) will be available on the course website along with the course syllabus. Other plant materials information is also available on the Plant Picture Pages. These images are large enough to print out as study aids or to blow up to full screen size for easy viewing.

- Go back and review what the twigs of deciduous plants look like after they lose their leaves in the fall or as the leaves expand in the spring.

- Make flash cards with the taxa's common name and identification features on one side and the scientific name on the other side to aid identification skills and to learn the correct spelling of scientific and common names. Common names account for only 20% of the identification points for a given taxon on laboratory quizzes and the lab final. Also, all lecture quizzes, lecture exams, and the lecture final refer to plants by their scientific names, hence learning only common names will likely result in failure of the course.

- Pay attention to family names, they are often clues to distinguishing among broad categories of species and provide hints on ecological requirements of unfamiliar taxa. It pays to learn the family names.

- Make lists of species with similar cultural, ornamental, design, ecosystem services, ecological roles, or identification characteristics.

- Organize a study group. Students who participate in study groups and routinely attend lectures and labs consistently earn better grades.

- Study the specimens provided in the laboratories in a timely manner. Fresh specimens can deteriorate rapidly in hot weather (this can be a particular problem early in the early fall or late in the spring).

- Do not wait till the last minute to study. The course contains much information and the plants take time to learn. It can be likened to learning a foreign language or mathematics course, if you keep up it is easy, if you once fall behind it is very difficult.

- There is a great deal of information to learn about the individual taxa in addition to the general course concepts. Learning this detailed information is critical to proper use of the plants in landscape designs, however, it is often useful to think about what are the general characteristics or requirements for the majority of trees and shrubs in a given design element group. Then, when studying emphasize how an individual taxon differs from the “typical shrub or tree” for that group of landscape plants. For instance, most trees and shrubs will grow well in a moist well drained slightly acidic fertile soil. For instance with most Rhododendron spp., one must have moist well drained acidic soils or they develop micronutrient deficiencies, hence they have an absolute requirement rather than being adapted to a broader range of soil conditions. Conversely, with Texas Mountain Laurel, Sophora secundiflora, plants have a tolerance for alkaline soils, but will also grow although more slowly on the acidic soils which Rhododendron spp. inhabit. This tolerance to a particularly challenging alkaline soil condition would be important to remember. Similar typical versus atypical traits and responses can be envisioned for other plant characteristics. Essentially, remember what makes a given taxon unique, either good or bad, plus or minus in use or adaptation.

- Spend time outside the lab and lecture periods studying the plants, it takes time, there is no substitute for hard work! It is expected that students will spend two to three hours outside of class or lab for each hour spent in lecture or lab. The laboratory is open weekdays from approximately 8:00 AM to 5:00 PM. Please keep in mind that specimens will be cleared out for room cleaning and returned to the greenhouse, nursery, or storage cooler after the last laboratory of the week so that they will be in good
shape for Monday morning. Students are welcome in the lab any time it is open that there is not a formal laboratory session underway in the room.

- Laminate your written notes to avoid ink run from rain, spills, and tears, lol ☺.

**Bonus Point Opportunities:**

- See opportunities as described under quizzes and attendance sections, numerous bonus opportunities will be present in both lecture and laboratory, but you MUST be in attendance to earn them.
- Bonus questions may be included on some exams.
- Plant Materials Games will be held during one or more lecture periods. Participating individuals will receive bonus points.
- Occasional mystery plants or diagnostic scenarios will be presented as bonus opportunities.
- Take-home assignments on a variety of plant materials related topics may be given as bonuses.
- Service learning sessions or tasks associated with the TAMU gardens and greenways can earn bonus points, but only for those opportunities open to all students (these will be announced in class).
- Students must be present, whether an absence is excused or not, to receive credit for bonus points. These are meant to be an extra incentive to students who are actually in attendance and are not a part of the required examinations for the course.
- Bonus points during lecture and laboratory often total 10% or more of the total points for the course. This means there is a potential for a built in curve that can be earned throughout the semester. These points are only available to those in attendance participating during those times. Bonus points must be earned and are another mechanism to encourage attendance and participation.

**Extra Credit Work:**

*Individualized extra credit work will not be assigned, put your efforts into the assigned work and class-wide bonus opportunities.*
Lecture Quiz 1
Acknowledgment of the terms of this class as stated in the above syllabus

I, the undersigned, acknowledge that I have read and understand the terms of this HORT 306 course syllabus (as stated in the preceding document) and that I agree to abide by the terms of this syllabus. All terms of this syllabus are subordinate to published TAMU policies and all federal, state, and local laws and ordinances. Subordination of one or more clauses in this syllabus does not render the remaining clauses unenforceable.

Print your name: __________________________________________________________

Sign your name: __________________________________ Date __________

HORT 306
Permission to Post Grades, Fall 2018 (optional)

If you wish to have your grades posted on the class website for HORT306 using a code you provide, then please sign the release below and provide a code. If you do not provide a code or do not sign for to indicate your permission, your grades will not be posted.

I wish to have my grades posted on the HORT 306 class website during Fall Semester 2018 using the following code I have provided.

Print your Name: __________________________________________________________

Sign your Name: __________________________________________________________

Code to use when posting my grade (choose any combination of five or more letters and/or numbers, please avoid using your student ID, social security numbers, or other numbers that would personally identify you to others, use a minimum of five digits/letters, all letters should be upper case letters, do not begin the code with a zero – use a capital O as an alternative).

Code: __________________________________________________________