

SUSTAINABLE NURSERY PRODUCTION

Spring 2021

HORT 4503 at University of Arkansas

HORT 4072/4012 at Louisiana State University

PSS 4363/6363 at Mississippi State University

HORT 4543 at Oklahoma State University

Instructor:



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*Are you having technical difficulties (e.g. problems logging in to Canvas)?
Contact the IT Help Desk at (405) 744-HELP (4357) or <http://help.okstate.edu/>.*

Instructor availability:

I will have set office hours on Friday from 8-10am, but feel free to call or email anytime. Email contact is preferred as I will be teaching three other courses and will be in and out of the office. I try to respond within 24 hours but usually it is a lot sooner. If you want to reach me at a specific time, it is probably best to set it up via e-mail prior to the time you would like to have the virtual meeting.

Course overview:

This course addresses issues and practices involved in production of a quality nursery crop for sale. We will discuss a variety of topics including, but not limited to locating a nursery, nursery layout, plant nutrition, plant water relations and irrigation needs, shipping, and managing people and resources to produce the crop.

Course Prerequisites:

- Woody Plant Identification (HORT 2613 at OSU)
- Fundamentals of Soil Science (SOIL 2124 at OSU).

Course goals:

The goal of this course is to help students understand the challenges and processes involved in growing a quality nursery crop for sale. Students will gain insight into the effect of various production practices on crop growth and quality and also the effect those same production practices may have on the environment.

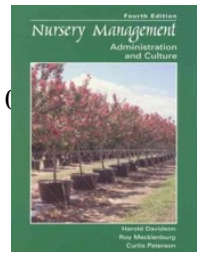
Learning Outcomes:

Upon completion of this course, students should be able to:

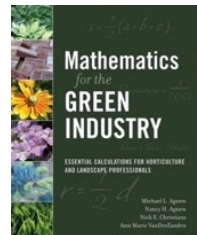
1. Compare and contrast site needs for container production, field production, or combinations of container and field production (use of pot-in-pot or fabric containers).
2. Evaluate the need for fertilizer application based on soil tests, foliar analysis, and plant symptoms.
3. Compare and contrast drip and sprinkler irrigation of nursery crops based on water use, installation costs, and maintenance costs.
4. Employ sound crop production methods to produce a nursery crop while limiting environmental impacts.

Texts:

Davidson, H., R. Mecklenburg, and C. Peterson. 2000. *Nursery Management, Administration and Culture*. 4th Edition. Prentice Hall, Upper Saddle River, NJ. ISBN 0-13-857996-2.



Agnew, M.L., N.H. Agnew, N.E. Christians, and A.M. VanDerZanden. 2008. *Mathematics for the Green Industry*. John Wiley & Sons, Hoboken, NJ. ISBN 978-0-470-13672-0.

**Other Required Publications:**

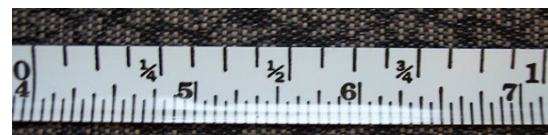
American Standard for Nursery Stock. Can be downloaded or printed free at

https://cdn.ymaws.com/americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf

Required Supplies:

A calculator. Cell phones may NOT be used as a calculator during exams!

A diameter tape or caliper for measuring tree trunk diameters. If you are on the OSU-Stillwater, University of Arkansas-Fayetteville, Mississippi State University-Starkville, or Louisiana State University-Baton Rouge campus, your instructor of record for your campus has diameter tapes and calipers that can be checked out. They can also be purchased from suppliers such as [Forestry-Suppliers](#) or [A.M. Leonard](#). Examples are shown to the right:



Other equipment and supplies will be necessary for activities in some modules. You will be notified of supplies needed in a timely manner. If you are on or near campus, we (your instructors of record and I) can likely provide most of the equipment and supplies but you must make arrangements in advance.

Format/Organization:

Sustainable Nursery Production is an internet-based course. The course is divided into modules that address topics pertinent to nursery production and management. Although the course is internet based, it is taught in real time. In other words, modules will become available for your use at specific times and the activities, including any assignments and quizzes or exams, must be completed within the timeline specified within each module.

Class modules that include various activities, assignments and methods of testing will be accessed using the Oklahoma State University Online Classroom (Canvas). You will need your OSU user ID and Okey password to log in to the Online Classroom. *If you have difficulties logging in, you can get help through the IT Help Desk at <http://help.okstate.edu/> or (405) 744-HELP (4357).*

Make-up Policy:

No late assignments will be excepted and quizzes and exams cannot be made up if missed unless previous arrangements are made.

Tentative Number of Points Available:

The following is the estimated number of points available during the semester.

Weekly Assignments	Weekly points	Semester total
Math applications	(Varies)	240
Quizzes	(25 points)	300

One-time Assignments	One-time points
Detailed Crop Production Plan	100
Nursery Production Project	100
Exams (3 at 100 points each)	300

Pick 4 of 5 25 assignments below

Retail Nursery Tour	25
Nursery Stock Sizes	25
Sprayer Calibration	25
Substrate Analysis	25
Professional Development (Career Fair)	25

Total points possible for course 1140

Bonus: By the end of the day Friday of the second week, post 5 powerpoint slides maximum about yourself in the discussion. Even though the course is online, I would like to know a little about each of you. This will be worth 10 bonus points.

Grading Scale:

A= 90-100%

B= 80-89%

C= 70-79%

D= 60-69%

F= less than 60%

Percentages will be based upon the total points available during the semester.

Quizzes:

Weekly quizzes will include questions from any section of the course but will primarily focus on the topic of the week. There may also be calculations included on the quiz from any type of calculation that has been covered prior to the quiz. Quizzes will be available on Fridays and will be worth about 25 points each. Quizzes will open at 8am and close at 11:59pm. You will have 15 minutes to complete each quiz, and quizzes may only be taken one time. A proctor is NOT required for quizzes, but the quizzes are timed and you will need to download Respondus Lockdown Browser after clicking on a quiz. You will not be able to go look up all of the answers in your notes, so be sure you know the information in the module before taking the quiz! Your lowest quiz grades will be dropped at the end of the semester, so if you decide that you do not want to take the quiz during your spring break or at some other time, your lowest quiz grade will be dropped.

Exams:

Three 100-point exams will be given online during the semester. Exams are tentatively scheduled on:

- February 19
- April 2
- April 27 (Final Exam)

This course will be using Examity, an online test proctoring software, for all exams. You must have access to a quiet room in which to complete the exam, high speed internet, and a computer that will load the Examity extension (please use the latest version of the Google Chrome browser). If you don't have all these elements, you will not be able to successfully complete an online exam with proctoring and will need to contact the instructor for assistance.

I strongly encourage you to complete the practice exam I have provided to become familiar with using Examity several days before the exam to ensure you have adequate internet and technology to complete a proctored online exam successfully. These steps will significantly reduce problems students typically encounter with auto-proctoring. Also, please give yourself a few extra minutes prior to the test to set up Examity. This will give you time to address any unexpected technical issues. If you encounter technical problems you should work through Examity's Support team. Contact information is on the course Canvas dashboard and in the Student Guidelines.

Graduate Credit:

If you are taking this course for graduate credit, you are required to do a project in addition to the assignments that undergraduates are expected to do. This extra project may consist of a hands-on research project, literature review, or factsheet and is negotiable between you and Dr. Dunn. The project must be approved by Dr. Dunn on or before Friday, February 1st at 5:00 p.m. The project is worth 100 points and is due April 19.

Important dates:

January 19	Course begins
Every Monday	Math Assignment is due
Every Friday	Quiz
February 1	Graduate students must have Graduate Project approved
February 10	Nursery Standards Assignment is due
February 19	Exam 1
March 3	Substrate Fertility Analysis Assignment is due
March 10	Garden Center Tour Report is due
March 17	Detailed Nursery Crop Production Plan is due
March 31	Sprayer Calibration Assignment is due
April 2	Exam 2
April 7	Professional Development (Career Fair) Report is due
April 14	Nursery Project is due
April 19	Regular coursework ends / Graduate Student Project is due
April 27	Final Exam & End of course

Please see the calendar in Online Classroom for more scheduling information.

Academic Integrity:

The University of Arkansas, Louisiana State University, Mississippi State University, and Oklahoma State University are committed to the maintenance of the highest standards of integrity and ethical conduct of their members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript (F!), and being suspended from the University. You can appeal.

You may contact the following office on your campus for more information:

- At the University of Arkansas, contact the Office of the Provost/Vice Chancellor for Academic Affairs, 422 Administration Building, 429-575-2151, <http://provost.uark.edu/>.
- At Louisiana State University, contact the Office of Student Advocacy and Accountability, 115 Johnson Hall, 225-578-4307 <https://www.lsu.edu/saa/faculty-staff/academicintegrity/>.
- At Mississippi State University, contact the Division of Student Affairs, 115 Lee Hall, 662-325-3045, <http://www.honorcode.msstate.edu/>.
- At Oklahoma State University, contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627 <http://studentaffairs.okstate.edu/>.

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