



Silviculture

FORS 3347



Instructor: Dr. Jeremy Stovall
Lab Introduction



Group Activity

Then shalt thou count to three, no more, no less. Three shall be the number thou shalt count, and the number of the counting shall be three. Four shalt thou not count, neither count thou two, excepting that thou then proceed to three. Five is right out. Once the number three, being the third number, be reached, form a group.

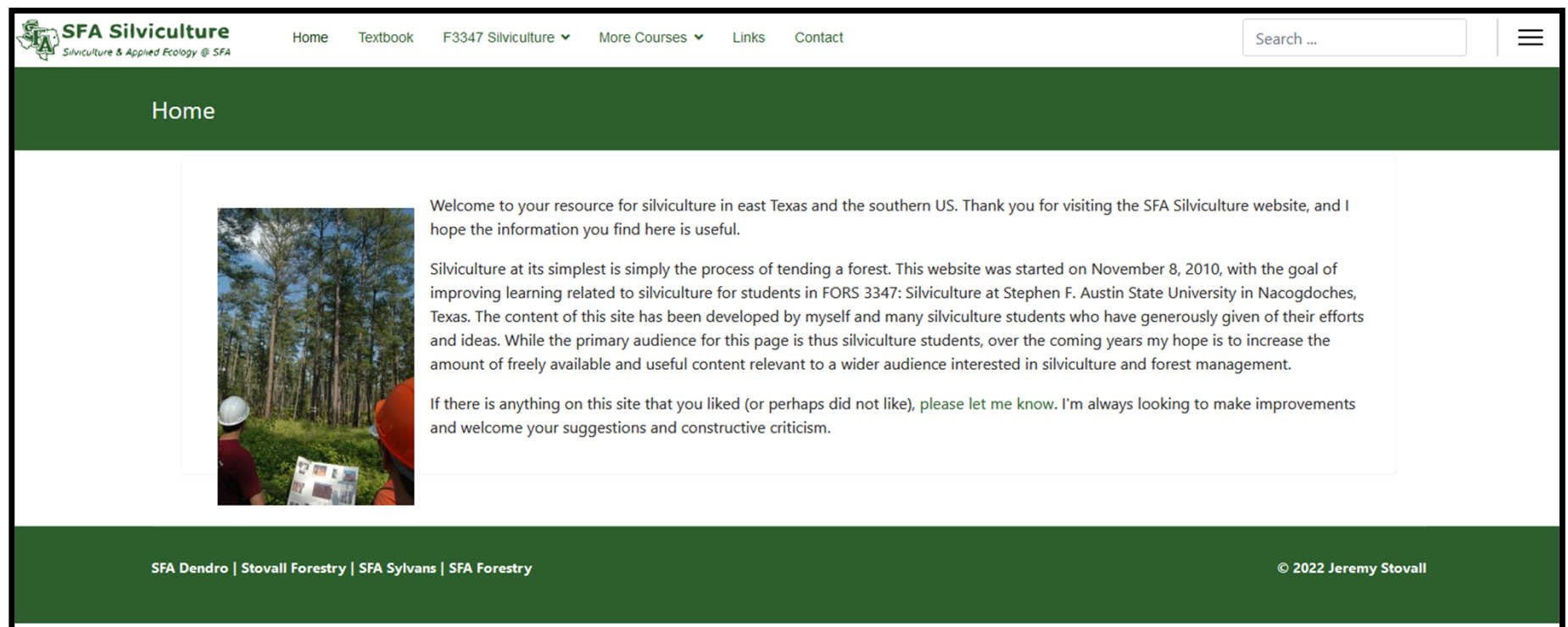
- List ~3 things you want to learn from this course
- List ~3 goals for the course
- Rank your goals from MOST to LEAST difficult
- Put both your group's consensus lists on the board

Silviculture Course Objectives

1. Demonstrate an understanding of stand dynamics, including concepts of stand structure, function, establishment, growth, composition, health, and quality
2. Explain the ecological underpinnings and technical considerations for common regeneration, establishment, and intermediate treatments that comprise modern silvicultural systems
3. Develop data-driven, time- and space-bounded prescriptions for forest stands considering ecological, economic, and societal aspects of management decisions in an ethical context, including logical rationale supporting management decisions
4. Create solutions to real-world forest management challenges by applying higher-order thinking skills to their knowledge of silviculture

Course Website

www.sfasilviculture.com




The screenshot shows the homepage of the SFA Silviculture website. At the top left is the logo for SFA Silviculture, which includes a small tree icon and the text "SFA Silviculture" and "Silviculture & Applied Ecology @ SFA". To the right of the logo is a navigation menu with links for "Home", "Textbook", "F3347 Silviculture" (with a dropdown arrow), "More Courses" (with a dropdown arrow), "Links", and "Contact". On the far right of the top navigation bar is a search box labeled "Search ..." and a hamburger menu icon. Below the navigation bar is a dark green header with the word "Home" in white. The main content area is white and features a large image on the left showing two people in hard hats looking at a map in a forest. To the right of the image is a welcome message and a paragraph about the website's purpose. At the bottom of the page is a dark green footer with the text "SFA Dendro | Stovall Forestry | SFA Sylvans | SFA Forestry" on the left and "© 2022 Jeremy Stovall" on the right.

SFA Silviculture
Silviculture & Applied Ecology @ SFA

Home Textbook F3347 Silviculture ▾ More Courses ▾ Links Contact

Search ...

Home



Welcome to your resource for silviculture in east Texas and the southern US. Thank you for visiting the SFA Silviculture website, and I hope the information you find here is useful.

Silviculture at its simplest is simply the process of tending a forest. This website was started on November 8, 2010, with the goal of improving learning related to silviculture for students in FORS 3347: Silviculture at Stephen F. Austin State University in Nacogdoches, Texas. The content of this site has been developed by myself and many silviculture students who have generously given of their efforts and ideas. While the primary audience for this page is thus silviculture students, over the coming years my hope is to increase the amount of freely available and useful content relevant to a wider audience interested in silviculture and forest management.

If there is anything on this site that you liked (or perhaps did not like), please let me know. I'm always looking to make improvements and welcome your suggestions and constructive criticism.

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Quizzes

- Half your grade
- At beginning of lecture (usually)
- PowerPoint questions, quiz form
- Typically about 15 minutes
- Accommodations
- Go over answers immediately
- Returned next class
- Grades posted ASAP



Quiz Tip #0

- You cannot take a quiz if you are not in class.
- Quizzes are **NOT** dropped.



Quizzes

- Two points per question
- Partial credit (one point) possible
- Quiz worth 10, but 12 possible
- Same series of question types on each
 - Terminology – 2 questions
 - Short answer – 1 question
 - Readings – 1 question
 - Quantitative – 1 question
 - Bonus – 1 question



Terminology Questions

- Terms list in syllabus packet & online
- Terms quiz on website
- See week that terms become fair game
- Silviculture is verbatim, others are not

The screenshot shows a web interface for a 'Silviculture Terminology Quiz'. At the top, there is a blue navigation bar with four links: 'Home Silviculture at SFA', 'FORS 3347 Course Documents', 'Terms List Download a PDF', and 'Questions? Email Dr. Stovall'. Below this is a green header with the text 'Silviculture @ SFA' and 'Silviculture Terminology Quiz'. A dropdown menu shows 'All (161 terms)'. The main content area is titled 'Silviculture' and features a green box with the definition: 'The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.' To the right of the definition are three small icons: a green checkmark, a red 'X', and a plus sign. Below the definition, there is a blue button with a left arrow and a red button labeled 'Flash Cards'. To the right of these buttons are two more sets of icons: a green checkmark and a red 'X' above a blue left arrow and a blue right arrow. At the bottom, a green footer contains the text: 'Programming by Kevin Stovall', 'Content developed by Jeremy Stovall', and 'Terminology mostly follows the [2012 Silviculture Terminology Reference List](#)'.


Term	Definition	Week
Silviculture	The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.	1
Silvics	The study of the life history and general characteristics of forest trees.	1
Cultural Treatment	The manipulation of vegetation to meet silvicultural objectives.	1
Extensive Forestry	The practice of forestry on a basis of low operating and investment costs per acre, typically on a longer rotation.	1
Intensive Forestry	Managing a forest to obtain a high level of productivity through the application of the best techniques of silviculture and management, typically on a shorter rotation.	1
Silvicultural System	A planned process spanning a whole rotation whereby a stand is tended, harvested, and reestablished.	1
Rotation	In even-aged systems, the period between regeneration establishment and final cutting. In uneven-aged systems, the approximate time it takes to regenerate the entire area within a stand, or the age of the oldest planned cohort within a stand.	1
Even-aged System	A planned sequence of treatments designed to maintain and regenerate a stand with one age class. The range of tree ages is usually less than 20 percent of the rotation.	1
Two-aged System	A planned sequence of treatments designed to maintain and regenerate a stand with two age classes.	1
Uneven-aged System	A planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes.	1

Terminology Tips

- STUDY (17% of grade!)
- Repetition in any form
- Make it interactive
 - Flash cards
 - Groups
 - Test yourself
 - Practice quizzes
- Consider the context
 - How are these terms connected to silviculture & your experiences?

terminology noun

 Save Word

ter·mi·nol·o·gy | \ ,tər-mə-'nä-lə-jē 

plural terminologies

Definition of *terminology*

- 1 : the technical or special terms used in a business, art, science, or special subject
- 2 : nomenclature as a field of study

Short Answer Questions

- General concepts from classes or labs
- Website has 99% of lecture slides and 100% of videos
- Also YouTube playlists
 - Channel is Jeremy Stovall

F3347 Silviculture ▾ More Courses ▾ Links Contact

Course Documents

You are here: F3347 Silviculture / Course Documents / Lecture 1: Intro

Lecture 1: Intro

Lecture Video

This lecture was filmed during a livestream Zoom class session with students during the 2020 Coronavirus Pandemic.

Introduction to Silviculture - SFA Silviculture

Watch later Share

Course Documents

Watch on YouTube

Click [HERE](#) to watch the video directly on YouTube.

Lecture Slide Handouts

One slide per page, 10 x 7.5 inches. This may be a large file (5-10 Mb): [PDF](#)

SFA Silviculture FORS 3347

Instructor: Dr. Jeremy Stovall

Lecture 1

Intro to Silvicultural Systems

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Short Answer Questions

Take Good Notes

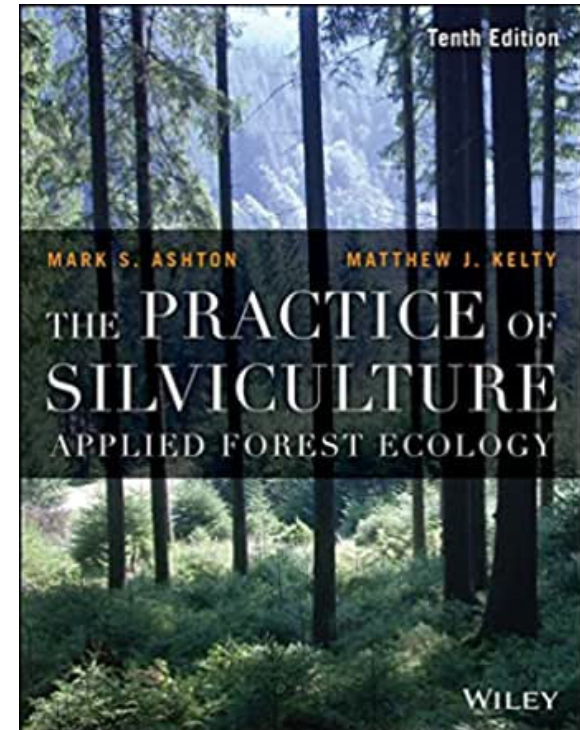
- Preview material before class
- Write main points, not verbatim (you have videos & slides)
- Jot down questions
- Create a clear, consistent structure to your notes
- Be consistent
- Review after class
- **Can you explain it?**

The screenshot shows a webpage from 'THE LEARNING CENTER • University of North Carolina at Chapel Hill'. The page title is 'Effective Note-Taking in Class'. The content includes an introductory paragraph about the challenges of note-taking, a section titled 'Why good notes matter' with sub-sections for 'In-class benefits' and 'Post-class benefits'. On the right side, there are two orange buttons: 'View All Tips & Tools' and 'Visit Our Blog'. Below these are social media icons for Instagram, Twitter, YouTube, and Facebook, and a list of 'Blog Posts on Notetaking' with links to various articles.

<https://learningcenter.unc.edu/tips-and-tools/effective-note-taking-in-class/>

Reading Questions

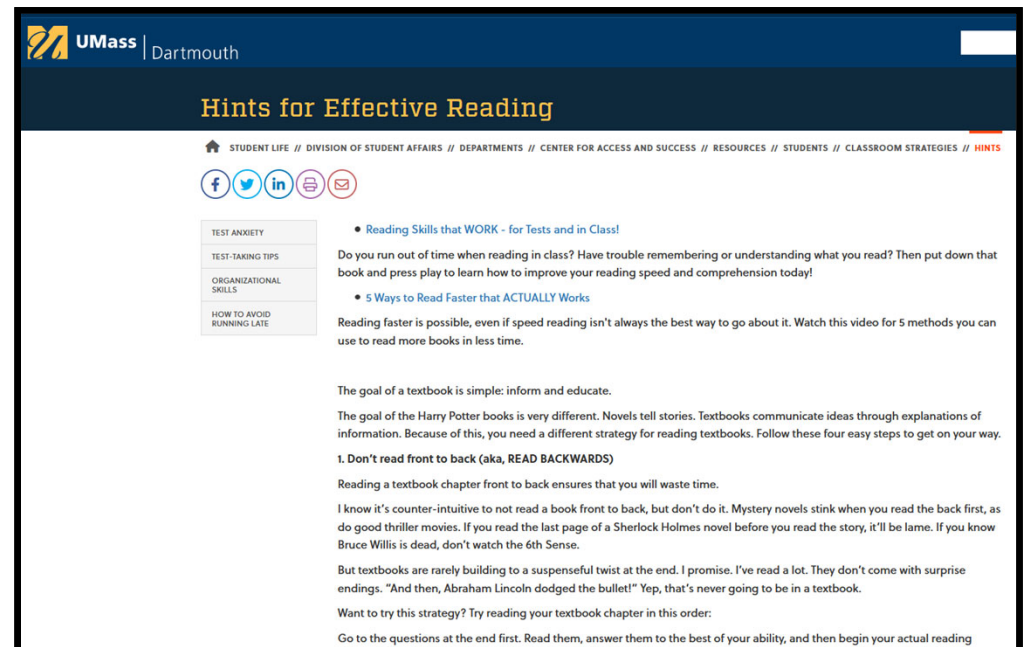
- Reading abbreviations
 - Don't need PS right away
- Reading password – write on syllabus
- Don't try to memorize everything
- Focus on the main points
- Which reading is fair game on a quiz?



SILVICULTURE TENTATIVE SCHEDULE****					
WEEK	DATE	DAY	LECTURE	READING ASSIGNMENT	LAB
1	10-Jan	Tue	<i>NO CLASS</i>	n/a	Intro to Silviculture
	12-Jan	Thu	1 Introduction to Silvicultural Systems	OT* 1.1 – 1.3	

Effective Reading

- Take notes or make an outline
- Outline first only the big ideas
- Then note a few key details that support each big idea
- Don't try to be comprehensive
- Don't re-read the book
- Review your notes instead
- **Can you explain it?**



The screenshot shows a webpage from UMass Dartmouth titled "Hints for Effective Reading". The page has a dark blue header with the UMass Dartmouth logo and navigation links. Below the header, there are social media icons for Facebook, Twitter, LinkedIn, YouTube, and Email. A sidebar on the left contains a menu with items: TEST ANXIETY, TEST-TAKING TIPS, ORGANIZATIONAL SKILLS, and HOW TO AVOID RUNNING LATE. The main content area features a list of links: "Reading Skills that WORK - for Tests and in Class!" and "5 Ways to Read Faster that ACTUALLY Works". Below these links, there is a paragraph of text discussing the goal of a textbook and the importance of reading backwards. The text includes examples like "1. Don't read front to back (aka, READ BACKWARDS)" and "Reading a textbook chapter front to back ensures that you will waste time." It also mentions "I know it's counter-intuitive to not read a book front to back, but don't do it. Mystery novels stink when you read the back first, as do good thriller movies. If you read the last page of a Sherlock Holmes novel before you read the story, it'll be lame. If you know Bruce Willis is dead, don't watch the 6th Sense." and "But textbooks are rarely building to a suspenseful twist at the end. I promise. I've read a lot. They don't come with surprise endings. "And then, Abraham Lincoln dodged the bullet!" Yes, that's never going to be in a textbook." The page concludes with "Want to try this strategy? Try reading your textbook chapter in this order: Go to the questions at the end first. Read them, answer them to the best of your ability, and then begin your actual reading."

<https://www.umassd.edu/dss/resources/students/classroom-strategies/hints-for-effective-reading/>

Quantitative Questions

**“I am bad at
math.”**

Quantitative Questions

**YOU ARE NOT
BAD AT MATH!**

Quantitative Questions

- Fixed Mindset
 - I am bad at math.
 - I will always be bad at math.
 - Because this is a fixed property of me, I can do nothing about it.
 - I fail things involving math.
 - Career paths that require math are closed to me.

Quantitative Questions

- Fixed Mindset
 - I was bad at math.
 - I was never good at math.
 - Because of a fixed property of me, I can't do better about it.
 - I failed in math.
 - The paths that lead to success in math are closed to me.

If the fixed mindset were true....

.....THEN WHY GO TO SCHOOL AT ALL?

Quantitative Questions

- ~~Fixed Mindset~~

- ~~• I was bad at math.~~
- ~~• I was never good at math.~~
- ~~• Because of a fixed property of me, I can't do anything about it.~~
- ~~• I failed in math.~~
- ~~• Career paths that require math are closed to me.~~

- Growth Mindset

- Math is a skill.
- Skills can be learned.
- If I practice and find the right resources, I can learn math.
- I may struggle, but I will eventually learn what math I need/want.
- Career paths that require math are open to me, if I'm willing to put in the effort.

Quantitative Questions

**I NEED MORE
PRACTICE AT
MATH!**

Quantitative Questions


- Taken from lecture or lab
- Most equations provided
- Fair game after we've covered
- See practice problems
 - Roughly in order for semester
- Plot and stand size questions are already fair game (#1 - #3)
- Practice problems, videos, and solution handouts on website
- Change the numbers, try again.
- **Can you explain it?**

Silviculture Quantitative Practice Problems List Page 1 of 16

Silviculture Quantitative Practice Problems List

Some problems adapted from bonuses submitted by: Reid Pitts, Alejandra Martinez, and Nathan Homeier.

1. Calculate the short side length of a rectangular $1/80^{\text{th}}$ hectare plot in meters. The long side is 40 m.
1 hectare = 10,000 m², $\pi = 3.14159$ SOLUTION: <https://youtu.be/Jp80dp1Nw4>



1. Calculate the short side length of a rectangular $1/80^{\text{th}}$ hectare plot in meters. The long side is 40 m.
1 hectare = 10,000 m², $\pi = 3.14159$

$\frac{1}{80}$

$A = lw$

$\frac{A}{l} = w$

Bonus Questions

- Usually short answer or quantitative
- Study for the other types of questions, and you'll be prepared for these.



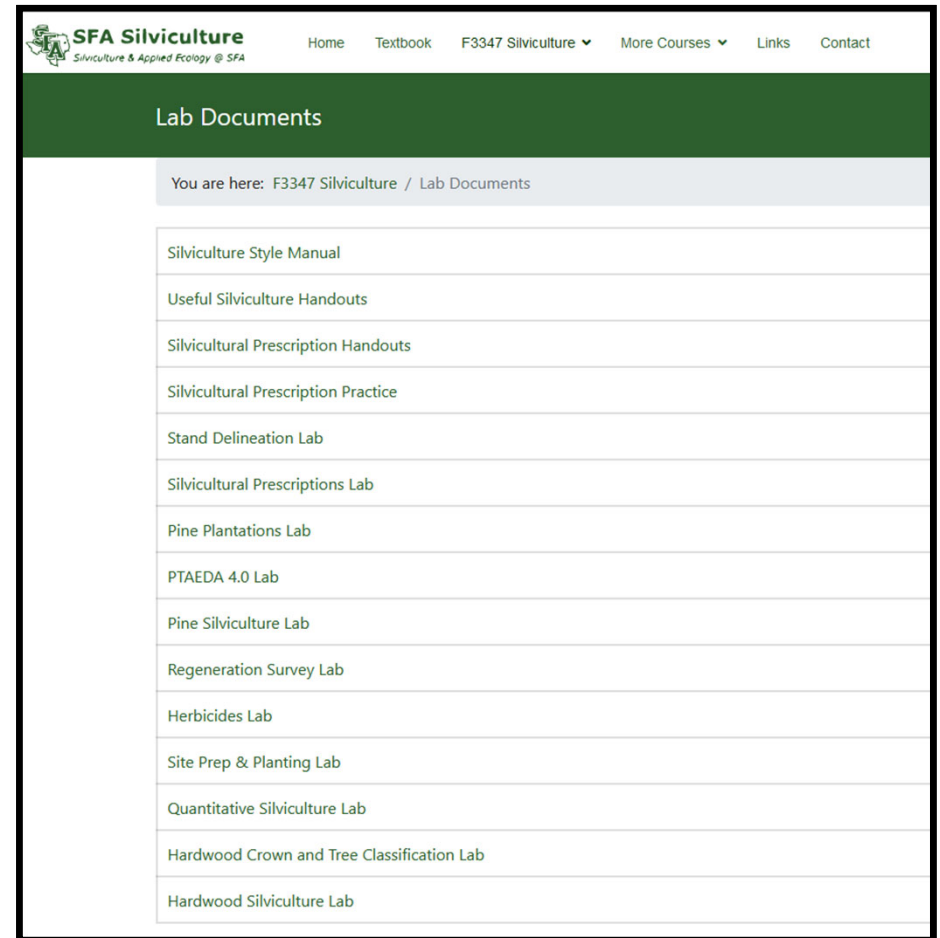
Big Quiz

- In lieu of a final exam
- Equivalent to four quizzes
- No reading questions
- 50% terms
- 25% short answer
- 25% quantitative
- Cumulative over whole course



Labs

- Lab assignments completed in lab
- A couple as ‘homework’
- Some group, most individual
- Prescription sheet
- Prescription grading
- Prescription crib notes
- Useful handouts packet – print it if you don’t have it yet
- Labs online, but I’ll print you a copy
 - Don’t lose your copy during lab (jeez!)



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- Silviculture Style Manual
- Useful Silviculture Handouts
- Silvicultural Prescription Handouts
- Silvicultural Prescription Practice
- Stand Delineation Lab
- Silvicultural Prescriptions Lab
- Pine Plantations Lab
- PTAEDA 4.0 Lab
- Pine Silviculture Lab
- Regeneration Survey Lab
- Herbicides Lab
- Site Prep & Planting Lab
- Quantitative Silviculture Lab
- Hardwood Crown and Tree Classification Lab
- Hardwood Silviculture Lab

Practice Prescriptions

- Two stands on campus
- Two different landowner objectives
- Example prescriptions for two of these scenarios provided
- Can review if you'd like

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Bonuses

- Email questions
 - By 7:30am
 - Two per reading
 - In body of email
- Textbook chapters
 - List of topics in my office
- Errors / Suggestions
 - Email Stovall

SFA Silviculture
Silviculture & Applied Ecology @ SFA

Home Textbook F3347 Silviculture More Courses Links Contact

Course Documents

You are here: F3347 Silviculture / Course Documents / Silviculture Bonus Opportunities List

Silviculture Bonus Opportunities List

A PDF of the silviculture bonus opportunities available each semester to all students (~100 Kb): [PDF](#)

Bonus Opportunity List Page 1 of 2

Silviculture Bonus Opportunity List

Bonus assignments may be submitted throughout the semester. All bonus opportunities are due before the beginning of the final lecture section (not the final exam period, but the last class). Anything turned in after this will receive no credit.

Name	Value
Course Improvements	1+ bonus point each, unlimited
Reading Questions	1+ bonus point each, 52 points
Textbook Chapters	up to 50 bonus points each, limit 2 chapters
Other	Announced each semester based on opportunities that become available.

*All bonus points will be added to the numerator of your QUIZ grade. Each bonus point is worth 0.2 quiz points. Thus 5 bonus points will make up for missing one point on one quiz, and 50 bonus points will make up for an entire quiz.

Reading Questions

- Submit a question you have on a course reading. Maximum two questions per reading. If you have more than two questions, please ask, but only your first two will count for this bonus opportunity.
- Submit via email, must be sent at least 30 minutes before the start of the lecture the reading was assigned for.
- One or more bonus points (at my discretion) will be given for each question depending on the quality of the question.
- No points will be given for questions that have obvious answers you could find in the reading.
- I will attempt to answer your question either via email, verbally, or as part of the lecture for the whole class, depending on the nature of the question. Occasionally there may be such a volume

Bonuses

- One bonus point = 0.2 quiz points
- So 50 bonus points = a 0/10 quiz becoming a 10/10 quiz
- **DO THE BONUS OPPORTUNITIES**



Tips for Success

- Split into your groups of **three** →
- Discuss each person's study plan for silviculture this term
- Provide constructive criticism to each other

- Produce a group list of common study plan items among all four group members
- Put it on the board



Study Plan

- Need to commit weekly time to studying for this class
- Schedule it like you'd schedule a class
- Focus on **EFFECTIVE** studying, not just time
- Be here
- Be on time
- Be prepared

Each week you should spend time on:

- Terminology
- Readings
- Quantitative Problems
- Reviewing Lectures / Labs

Wrap Up- Don't Leave Yet!

- Three things you're looking forward to learning in silviculture this semester
- Two concerns you have about the course this semester
- One question you'd like answered about silviculture or the course
- Form is anonymous (but with option to include name if you'd like)

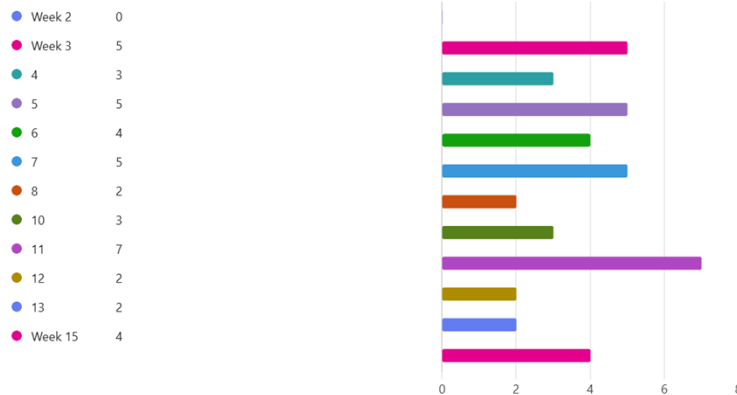


<https://forms.office.com/r/i6p8zqr7JR>

Quiz Scheduling

- I'll try to avoid your busiest times of the semester in other classes.
- This won't work perfectly for everyone.

1. Check the weeks when you have exams in your other classes. See page 5 of the syllabus for dates.



<https://forms.office.com/r/A0KEuj3U6E>