

INSTRUCTIONAL PACKAGE

FOR 271 Silviculture

Effective Term Fall 2023/Spring 2024/Summer 2024

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Departmental Mission Statement:

Forestry Management Technology Department & Program Mission Statement

The mission of the Department, the Programs and its faculty is to support the broader College's goals as detailed above, but also provide a comprehensive silviculturally based environmental education that recognizes the broad multiple uses demanded from the forest environments of South Carolina, the Southeastern United States and the nation.

- We want our graduates to recognize how their daily decisions will have a lasting impact on the social, cultural, economic, and environment fabric of our state, region and country.
- Their natural resource decision making process must be based on the highest professional and ethical standards for the long term protection and promotion of a high demand resource.
- We strive to prepare well trained forest, wildlife and natural resource technicians for both public and private sector employers and promote career opportunities for our graduates.

Part I: Course Information

Effective Term: Fall 2023/Spring 2024/Summer 2024

COURSE PREFIX: FOR 271 COURSE TITLE: Silviculture

CONTACT HOURS: 3.0 Lecture, 3.0 Lab CREDIT HOURS: 4.0 Credits

RATIONALE FOR THE COURSE:

Forestry is a profession requiring the manipulation of environmental factors to achieve certain human goals (timber production, water quality improvement, wildlife habitat enhancement, etc.). The Silviculture course is an in-depth look into regeneration, intermediate treatments and harvesting operations performed on a forest property in order to achieve the goals of a landowner or society as a whole, given economic and ecological considerations.

COURSE DESCRIPTION:

This course covers the treatment of forest stands to achieve prescribed objectives. Specific topics include intermediate forest management practices, the four basic harvest methods, and regeneration of trees.

PREREQUISITES/CO-REQUISITES:

Credit level FOR 156 Minimum Grade of C or Credit level FOR 156 Minimum Grade of TC

*Online/Hybrid courses require students to complete the <u>DLi Orientation Video</u> prior to enrolling in an online course.

REQUIRED MATERIALS:

Please visit the BOOKSTORE online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

ADDITIONAL REQUIREMENTS:

SAFETY AWARENESS

All laboratories are conducted outdoors in whole or in part, regardless of weather conditions. Appropriate clothing is required, including pants and boots. Please do not wear sandals, tennis-shoes, sneakers, crocs, flip-flops, slippers, etc. Appropriate protective clothing should be worn when inclement weather is anticipated. Students should consider raingear, jackets, and gloves. Because of the obvious health risks associated with exposure to inclement weather, the instructors reserve the right to dismiss any student who is not properly dressed from any lab period.

Being outdoors carries some additional risk. Always be aware of your surroundings. Pay special attention while crossing roads or examining trees near roads. Bees, wasps and yellow jackets, although not common, may be encountered during a lab. You may wish to inform your instructor of any allergies or other medical conditions that you may have. Poison-ivy will be present, so know what the species looks like. It is everyone's responsibility for keeping the class safe.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials. Access to myHGTC portal for student self-services.

College email access – this is the college's primary official form of communication.

STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit Online Netiquette.

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

MODULE 1

Materials Covered: Extension Bulletins, Videos

*Assessment(s): Classroom Activity, Vocabulary Quiz, Lab reports.

Unit Test

Learning Outcomes:

- 1. Explain the purpose and limitations of silviculture.
- 2. Identify the various fields of silvicultural practice.
- 3. Relate silviculture practices to forest management in broad terms.
- 4. Relate cutting practices to the manipulation of stand structure and growing stock.

MODULE 2

Materials Covered: Extension Bulletins, Scientific Publications, Videos

*Assessment(s): Classroom Activity, Quiz, Lab reports.

Unit Test

Learning Outcomes:

- 1. Describe the ecological role of natural disturbances on the forest.
- 2. List the kinds of natural regeneration disturbances that occur in the forest.
- 3. Explain the stages of natural regeneration.
- 4. Explain the elements of silvicultural systems.
- 5. Relate application of silviculture practices to landowner objectives.
- 6. Identify environmental impacts of silvicultural practices.
- 7. Identify and describe stand conditions and composition, through measurements and observation.

MODULE 3

Materials Covered: Extension Bulletins, Scientific Publications, Videos

*Assessment(s): Complete classroom activity, Quiz, Lab reports.

Unit Test

Learning Outcomes:

- 1. Define silvicultural systems.
- 2. Compare high and low forest reproduction methods.
- 3. Identify the objectives of a silvicultural system.
- 4. Discuss control of damaging agents.
- 6. Define sustained yield.

- 7. Discuss the need for planned reproduction.
- 8. Define clearcutting.
- 9. Identify the modifications of clearcutting.
- 10. Discuss the application of clearcutting and its advantages and disadvantages.
- 11. Define the seedtree system, the characteristics of a good seedtree, and their number and distribution.
- 12. Identify the modifications of the seedtree system.

MODULE 4

Materials Covered: Extension Bulletins, Scientific Publications, Videos

*Assessment(s): Complete classroom activity, Quiz, Lab reports.

Unit Test

**Program Learning Outcome Forestry 1 – Assessment in form of landowner recommendation for stand initiation and stand treatments.

**Program Learning Outcome Forestry 2 - Students will create a map using ArcGIS Profor recommended forest stand treatment areas.

Learning Outcomes:

- 1. Identify alternatives available for regeneration.
- 2. Describe tree improvement work in the South.
- 3. Describe steps used in obtaining seed for regeneration.
- 4. Identify methods of planting seedlings.
- 5. Describe southern nursery operations.
- 6. Identify factors to consider use of natural seed source.
- 7. Identify seedbed preparation methods.
- 8. Identify advantages and disadvantages of planting and natural seeding.
- 9. Describe factors to consider while planning regeneration of a site.
- 10. Describe seed orchard operations.

MODULE 5

Materials Covered: Extension Bulletins, Scientific Publications, Videos

*Assessment(s): Quizzes, lab reports

Unit Test

Learning Outcomes:

- 1. Identify various methods and modifications of thinning.
- 2. Describe the objectives, advantages and disadvantages of each thinning method.
- 3. Identify the types of release cuttings.
- 4. Describe the objectives of each type of release cutting and the class of stems to be removed.
- 5. Identify the ways and means of stem removal or chemical eradication.

- 6. Describe chemical activity on plants when used for stem removal.
- 7. Identify various means of chemical application.
- 8. Identify potential environmental impacts of chemicals used in release operations.
- 9. Relate stand conditions and composition to correct thinning application.
- 10. Relate effect of thinning to intermediate and long-term forest development.
- 11. Identify environmental impacts of silviculture on wildlife habitat.
- 12. Identify environmental impacts of silviculture on watersheds.

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

Tests	50%
Assignments	30%
Quizzes	10%
Final Exam	10%
	100%

^{*}Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.

GRADING SYSTEM:

Please note the College adheres to a 10 point grading scale A = 100 - 90, B = 89 - 80, C = 79 - 70, D = 69 - 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the <u>academic calendar</u> for deadlines for add/drop. You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

^{*}Students - please refer to the Instructor's Course Information sheet for specific information on assessments and due dates.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

- Academic tutors for most subject areas, Writing Center support, and college success skills.
- 2. Online **tutoring** and academic support resources.
- 3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the <u>Student Success & Tutoring Center</u> website for more information. To schedule tutoring, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at <u>www.penjiapp.com</u>. Email <u>sstc@hgtc.edu</u> or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the <u>Online Resource Center</u> to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following free resources:

1. **Getting around HGTC**: General information and guidance for enrollment, financial aid, registration, and payment plan support!

- 2. Use the Online Resource Center (ORC) including Office 365 support, password resets, and username information.
- 3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
- 4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the <u>Tech Central</u> website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.



HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries are equipped with computers to support academic research and related school work; printing is available as well. Visit the <u>Library</u> website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms (which may have a fee associated with the usage) Furthermore, tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the <u>Online Testing</u> section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's <u>Accessibility and Disability Service webpage</u>. The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student,

develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, Title VII, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX, Section 504, and Title II Coordinator Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228

Melissa.Batten@hatc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

Affirmative Action/Equal Opportunity Officer and Title IX Coordinator Building 200, Room 205B, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hatc.edu