INSTRUCTIONAL PACKAGE

FOR 268
Forest Protection Practices

Effective Term
Fall 2022/Spring 2023/Summer 2023

INSTRUCTIONAL PACKAGE

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: <u>Spring 2023</u>

COURSE PREFIX: FOR 268   COURSE TITLE: Forest Protection Practices

CONTACT HOURS: 3.0 Lecture, 3.0 Lab   CREDIT HOURS: 4

RATIONALE FOR THE COURSE:

This course is designed to assist the student with prescribed and wildfire decisions, pesticide application and forest pest identification.

This course studies the major Southern Forest damage agents, including fire, insects and disease, and protection practices used. Specific topics include prescribed burning, pesticide use and safety, wildfire suppression, insect and disease identification and control measures.

COURSE DESCRIPTION:

This course covers forest fires and the major insects and diseases which attack southern forests. Methods of prevention and control are explored.

PREREQUISITES/CO-REQUISITES:

Must be enrolled in one of the following Fields of Study (Major, Minor, or Concentration):
    Forestry Management Tech
    Wildlife Management

Multiple Measures English 1 or Credit level ENG 101 Minimum Grade of C or Credit level ENG 155 Minimum Grade of C or Credit level ENG 101 Minimum Grade of TC or Credit level ENG 155 Minimum Grade of TC

*__Online/Hybrid__ courses require students to complete the DLi Orientation Video 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:

Students will be required to take the SC Commercial Pesticide Exam administered by Clemson University Department of Pesticide Regulation. The cost of the exam is $38.00.

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 student portal for course materials.
myHGTC and college email access.

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: Wildland Fire, Fire Behavior, Prescribed Fire
*Assessment(s):   Classroom activities, Quiz, Completion of IS-100, IS-700, S-190, S-130
                                  2 - Unit Tests
   Learning Outcomes:
1. Identify the uses and purposes of prescribed burning.
2. Effectively apply drip torches, fire flaps, fire rakes, and other prescribed burning tools.
3. Differentiate between a wildfire and a managed fire.
4. Choose the correct burning techniques, based on weather, topography, manpower vegetation, and other considerations.
5. Describe different methods of wildfire control.
6. Analyze and forecast fire behavior.
7. Explain the personnel organization for wildfires and prescribed burning.

Labs:
1. National Wildfire Coordinating Group – online courses S-190, Introduction to Wildland Fire Behavior and S-130, Wildland Firefighter Training.
2. FEMA online course I-100, Intro Incident Command.

Module #2
Materials Covered: Applying Pesticides Correctly, Southern Forest Pesticide Application and Uses
*Assessment(s):   Classroom activities.
                                  1 - Unit Test; Commercial Pesticide Applicator State Exam

Learning Outcomes:
1. Pesticide safety and correct usage
2. Correctly calculate active ingredient based on product content.
3. Explain calibration of hand sprayers, spot guns, and tank sprayers.
4. Identification of forests pests and treatments with Category 2 – Forestry Pesticides.
5. Completion of State Pesticide Commercial Applicator licensing test.
6. Completion of State Pesticide Commercial Application of Category 2 – Forestry Pesticides.

Labs:
1. Reading and interpreting different pesticide labels
2. Correctly identifying Algaecides, Insecticides, Herbicides, Rodenticides and Fungicides and their use.
3. Calculations for calibration of equipment and pesticide mixtures (Equipment: graduated cylinder, timer, handheld sprayers, appropriate PPE's).
4. Travel to site and observe/participate in calibration of equipment (Equipment: backpack sprayer, 4-wheeler sprayer, tractor sprayer, appropriate PPE's).

Module #3
Materials Covered: Forest Pests and Diseases; Invasive plants
* Assessments: Group activity, Quiz, written and oral presentation on Forest Insects/Diseases
                    2 - Unit Tests

Learning Outcomes:
1. Identify the life cycles, infected tree species, symptomology and damage, and control procedures for the following diseases:
    - Fusiform Rust, White Pine Blister Rust, Brown Spot, Chestnut Blight, Eastern Gall Rust, Anthracnose, <u>Fomitopsis annosa,</u> Dutch Elm Disease, Red Heart Rot, Oak Wilt, Littleleaf Disease
2. List the types of damage caused by forest insects.
3. List the range, life cycle, physical appearance, type of damage, and species affected for the following insects:
    - Pine Bark Beetle, Pine Sawflies, <u>Ips</u> Beetle, Southern Pine Sawyer, Turpentine Beetle, Nantucket Pine Tip Moth, Buprestidae Beetle Larvae, Pine Webworm, Cerambycid Beetle Larvae
4. Identify major abiotic mechanisms that affect trees.

Labs:
1. Identify the life cycles, infected tree species, symptomology and damage, and control procedures for the common insect and diseases:
    - Fusiform Rust, White Brown Spot, Galls, Anthracnose, <u>Fomitopsis annosa,</u> Aphids, Sawflies, Pinetip moths, Pine Bark Beetles, Cankerworms, Webworms
2. Identify biologic and culturally significant areas in a forest that should be protected by using site visits to oppose students to areas like:
    - Carolina Bays, Shell rings, Pitcher plant bogs, red-cockaded woodpeckers trees
3. Identify major abiotic mechanisms that affect trees.
4. Identify common exotic invasive plants in the Southeast.

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

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

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

EVALUATION*

Exams – 5 Total	**30%**
Labs	**20%**

Quizzes	**20%**
Prescribed Fire Plan	**10%**
Insects/Disease	**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 [academic calendar](#) 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.

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:
1.   **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 [Student Success & Tutoring Center](#) 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 [www.penjiapp.com](#). Email [sstc@hgtc.edu](#) or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) 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 [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.

STUDENT TESTING:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:
- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more 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, 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 Coordinator*
> Building 1100, Room 107A, Conway Campus
> PO Box 261966, Conway, SC 29528-6066
> 843-349-5228
> <u>Melissa.Batten@hgtc.edu</u>

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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
  EEO and Title IX Coordinator
  Building 200, Room 212A, Conway Campus
  PO Box 261966, Conway, SC 29528-6066
  843-349-5212
  Jacquelyne.Snyder@hgtc.edu