Instructor: Dr. Fred Yelverton  
Campus Address: 4401C Williams Hall  
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Email: fred_yelverton@ncsu.edu  
Office Hours: 8am-5pm Mon-Fri., by appointment

Instructor: Dr. Lane Tredway  
Campus Address: 2578 Gardner Hall  
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Office Hours: 8am-5pm Mon-Fri., by appointment

Instructor: Dr. Rick Brandenburg  
Campus Address: 3301 Gardner Hall  
Phone: 515.8876  
Email: rick_brandenburg@ncsu.edu  
Office Hours: 8am-5pm Mon-Fri., by appointment

Lecture Schedule: Monday 3:30-5:20 PM

Lecture Location: 1403 Williams Hall

Textbooks:  
Color Atlas of Turfgrass Weeds (suggested)  
Handbook of Turfgrass Insect Pests (suggested)  
Management of Turfgrass Diseases by J.M. Vargas (required but not available in bookstore, purchase at www.gcsaa.org or other vendor)

Course Website: http://www.ncsu.edu/project/turfpathology/CS495T/home.htm

Course Listserve: CS470-001@wolfware.ncsu.edu.

Course Objectives:

Upon successful completion of this course, students will gain a basic knowledge of:

1. Biological characteristics and ecology of turfgrass pests (weeds, insects, and diseases).

2. Identification/diagnosis of turfgrass pests.

3. Strategies for managing turfgrass pests, including cultural, mechanical, biological,
and chemical methods

4. How to develop an integrated pest management program based on turfgrass use, budgetary constraints, consumer expectations, site characteristics, and environmental concerns.

5. Family characteristics and modes of action for herbicides, insecticides, fungicides, and plant growth regulators.

6. Behavior and fate of pesticides in soil; impacts on efficacy, turf and ornamental tolerance, and potential environmental contamination.


**Testing Procedures and Grading Policy:** One-hour exams will be given on Feb 18 and Mar 24 during the regularly scheduled lecture periods. A third one-hour exam, covering Dr. Yelverton’s lectures, will be given during the designated final exam period on May 2 from 1 to 4 PM. Each of these exams will comprise 25% of the final course grade, for a total of 75%

The development and presentation of an integrated pest management plan is also required and will comprise the final 25% of the course grade. The pest management plan is due at the beginning of the final exam period on May 2. Each student will also give a 10 minute presentation on their pest management plan during the final exam period on May 2.

Final course grades will be determined according to the following scale:

- A: 90 to 100%
- B: 80 to 89%
- C: 70 to 79%
- D: 60 to 69%
- F: below 60%

**Note:** The +/- grading scale will not be used.

**Academic Integrity:** Students are expected to adhere to the Code of Student Conduct, which is available at the following website: [www.ncsu.edu/policies/student_services/student_conduct/POL445.00.1.htm](http://www.ncsu.edu/policies/student_services/student_conduct/POL445.00.1.htm). Unless stated otherwise, all exams and quizzes will be ‘closed book’. The act of submitting an exam or quiz implies that you have neither received nor given unauthorized aid on that exam or quiz. A score of 0 will be assigned to any exam or quiz for which there is evidence of unauthorized aid.

**Attendance Policy:** Regular attendance at all lectures is expected.
**Policy For Making Up Exams:** Students should inform the instructor if they anticipate missing an exam for a valid reason. Exams may be taken early if the student presents a valid reason for the anticipated absence. Excuses for emergency absences (due to illness, injury, or death in the family) should be reported to the instructor as soon as possible, and arrangements should be made to make-up missed exams on the first day the student returns to the class. Make-up exams will only be allowed if there is a legitimate excuse (i.e., university-sanctioned).

**Students with Disabilities:** Reasonable accommodations will be made for students with disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center (Phone: 515-7653). For more information on services for disabled students, visit the following website: [www.ncsu.edu/provost/offices/affirm_action/dss/](http://www.ncsu.edu/provost/offices/affirm_action/dss/).

**Lecture and Laboratory Safety:** The lecture will not involve any activities likely to result in injury or exposure to toxic materials. However, all students are expected to exercise proper safety precautions and common sense in lecture. Guidelines regarding general safety will be reviewed during the first lecture period.

**LECTURE SYLLABUS**  
**CS 470 - Spring 2008**  
**Advanced Turfgrass Pest Management**

- **Jan 14**  
  Introduction - general comments on what is to be covered in the course, expectations of students, testing and grading policy, explanation of project, safety procedures in lecture and lab, and safe egress from building (Brandenburg)

  Initial lecture on basics of insect biology and control (Brandenburg)

- **Jan 28**  
  Biology and Control of Above Ground Insect Pests (Brandenburg)

- **Feb 4**  
  Biology and Control of Below Ground Insect Pests (Brandenburg)

- **Feb 11**  
  Integrated Management of Turfgrass Insects (Brandenburg)

- **Feb 18**  
  Exam 1 – Turfgrass Insects

  Review of Plant Pathology; Turfgrass Disease Diagnosis (Tredway)

- **Feb 25**  
  Cultural and Chemical Strategies for Turf Disease Control (Tredway)

- **Mar 3**  
  No Class – Spring Break

- **Mar 10**  
  Biology of Turfgrass Diseases – Foliar Diseases (Tredway)
Mar 17  Biology of Turfgrass Diseases – Root Diseases (Tredway)

Mar 24  Exam 2 – Turfgrass Diseases

Introduction to Turfgrass Weeds (Yelverton)

Mar 31  Common and Troublesome Turfgrass Weeds and Weed Biology and Ecology in the Turfgrass Environment (Yelverton)

Apr 7  Uptake, Translocation, and Mode of Action of Turfgrass Herbicides and Plant Growth Regulators (Yelverton)

Apr 14  Herbicide Resistance: Occurrence, Genetics, Fitness, Mechanisms, and Strategies to Prevent Resistance (Yelverton)

Turfgrass Plant Growth Regulators (Yelverton)

Apr 21  Managing Turfgrass Pests in the Real World, Shawn Emerson, Director of Agronomy, Desert Mountain, Scotsdale, AZ

May 2  1-4 PM, 1403 Williams Hall

•  Exam 3 – Turfgrass Weeds
•  Pest Management Plans Due
•  Presentation of Pest Management Plans