

**ENT 121, Pesticides and Their Utilization (Fall semester; 3 credits; lecture only; Instructor – Steve Toth):** ENT 121 describes the types of pesticides, their uses and benefits, explains the risks of pesticides to applicators and the environment, outlines the federal and state laws and regulations that govern the use of pesticides, and teaches the safe and proper application, transportation, storage and disposal of pesticides. Also, the course prepares students for the written tests for commercial and private pesticide applicator certification/licensing in North Carolina.

Grading is determined by weekly quizzes (25% of the grade) and three exams (75% of the grade) administered over the course of the semester.

### **ENT 121, Pesticides and Their Utilization Lecture Schedule**

Class meets from 8:30 to 9:45 a.m. on Tuesdays and Thursdays.

Lecture 1	Course Introduction (Syllabus, Schedule, Policies, Grading); What is a Pesticide?
Lecture 2	Why Use Pesticides?; Historical and Current Usage of Pesticides
Lecture 3	Hazardous Effects of Pesticides to Humans
Lecture 4	Environmental Effects of Pesticides
Lecture 5	Environmental Effects of Pesticides
Lecture 6	Federal Pesticide Laws and Regulations
Lecture 7	North Carolina Pesticide Laws and Regulations
Lecture 8	Pesticide Labels and Labeling
Lecture 9	Pesticide Formulations
Lecture 10	Sources of Pesticide and Pest Management Information
Lecture 11	Pesticides Used to Manage Vertebrate Pests
Lecture 12	Insecticides
Lecture 13	Herbicide and Fungicide Use in Turf and Landscapes
Lecture 14	The Worker Protection Standard for Pesticides and “Expectations of a Pesticide Inspector” (Mr. Chip Bristow, Pesticide Inspector, North Carolina Department of Agriculture & Consumer Services)

Lecture 15	Personal Safety and Protective Clothing
Lecture 16	Pesticide Calibration (Dr. Wayne Buhler)
Lecture 17	Pesticide Calibration (Dr. Wayne Buhler)
Lecture 18	Certification and Licensing; Pesticide Recordkeeping
Lecture 19	Pesticide Transportation and Storage
Lecture 20	Pesticide Drift and Phytotoxicity
Lecture 21	Pesticide Application: Liquid Sprayers (Dr. Gary Roberson)
Lecture 22	Pesticide Application: Granular Applicators (Dr. Gary Roberson)
Lecture 23	Pesticide Decontamination, Disposal and Spills
Lecture 24	Ground Water and Wildlife Protection
Lecture 25	Pesticide Resistance
Lecture 26	Integrated Pest Management (Dr. Danesha Seth Carley)
Lecture 27	Review Activity

The course schedule is subject to change during the semester to accommodate guest lecturers. Schedule changes are announced to students in class and on the course website at <http://cipm.ncsu.edu/ent/ent121/home.htm>.