

Principles of Weed Science (PLSc 323) Course Syllabus 2009

<u>Instructor:</u>	Dr. Shane Friesen Office: Room 474C Loftsgard Hall Phone: 231-6227 E-mail: Shane.Friesen@ndsu.edu
<u>Office hours:</u>	1:00 – 2:00 pm on Tuesdays and Thursdays Or by appointment
<u>Lectures:</u>	Room 114 Loftsgard Hall Tuesdays and Thursdays 11:00 am – 11:50 am
<u>Laboratories:</u>	Room 104 Loftsgard Hall 4081 – Wednesday 10:00 – 10:50 am 4082 – Wednesday 11:00 – 11:50 am 4083 – Wednesday 12:00 – 12:50 pm 4084 – Wednesday 1:00 – 1:50 pm 5500 – Wednesday 2:00 – 2:50 pm

Course description: Introduction to biological, chemical, cultural, and physical weed control, characteristics of weeds and their identification, pesticide application and dissipation. 3 credits

Course objectives:

1. To develop a functional understanding of major herbicide modes of action, herbicide groups within each mode of action, and weed control characteristics of major herbicides within each group, including the visible symptoms of injury to plants caused by these herbicides.
2. To understand factors that affect the efficacy of both soil- and foliar-applied herbicides.
3. To understand regulatory aspects of weed control, including regulations and testing required before pesticides may be sold for public use.
4. To understand the factors that affect dissipation of herbicides and other pesticides in the environment.
5. To understand integrated weed management options, including biological, cultural, and physical weed control systems that can be used either alone or to complement herbicide-based programs.
6. To develop skills to safely and accurately apply pesticides, including an understanding of equipment and calibration techniques.
7. To improve identification of weed plants and seeds, including learning family and life cycle designations.

Lecture topics:

Introduction to weed science
Biological and agronomic factors influencing weed success
When are there too many weeds?
Avoiding weed problems
Specific methods for controlling weeds
1. Physical
2. Cultural
3. Biological control
4. Herbicides
Herbicide resistance

Laboratory topics:

Identification of weeds: plants and seeds
Pesticides and applicators: laws and reg.s
Pesticide formulations
The pesticide label
Application equipment
Soil aspects of herbicides
Herbicide injury symptoms on plants
Pesticide Safety
Intro. to the ND Weed Control Guide

Lecture materials: No books/manuals must be purchased for the lecture portion of this course. Student attendance to lectures is expected, thus, if a class is missed, notes on class discussions must be obtained from classmates. Please consider the lecture notes copyright protected. You may lend them to a classmate, but may not publish them, or allow them to be published, in any fashion.

Laboratory notes: There is a laboratory manual for purchase at the varsity mart/bookstore in Memorial Union.

Assessment:

Lecture quizzes will usually be given each Tuesday morning and typically cover the previous week's material. There will be 14 lecture quizzes. The first quiz will be Tuesday, January 20th. Each quiz is worth 40 points and will be given during the last 10 to 15 minutes of class. Two of the lowest 40 point quizzes will be dropped (including missed quizzes). Make-up quizzes will not be given. Instead, the same percentage score as received on the lecture final exam will be substituted for **no more than three** missed lecture quizzes per semester; e.g., if 70% is received on the final exam, then 70% of a 40 point quiz = 28 points will be inserted for each missed quiz. Beyond three missed lecture quizzes, a "0" score is inserted for missed lecture quizzes. Alternatively, if less than three quizzes have been missed, the lecture final may be substituted for a quiz with a lower grade for up to three quizzes, i.e., including the missed quizzes.

Laboratory quizzes will be given weekly and cover the previous weeks material. There will be 13 lab quizzes. The first lab quiz is January 21st. Each quiz is worth 40 points and the two lowest scores for the semester will be dropped. Make-up quizzes will not be given. Instead, the same percentage score as received on the laboratory final exam will be substituted for **no more than three** missed laboratory quizzes per semester; e.g., if 70% is received on the final exam, then 70% of a 40 point quiz = 28 points will be inserted for each missed quiz. Beyond three missed laboratory quizzes, a "0" score is inserted for missed laboratory quizzes. Alternatively, if less than three quizzes have been missed, the laboratory final may be substituted for a quiz with a lower grade for up to three quizzes, i.e., including the missed quizzes.

The Personal Response System (PRS) will be used every class. Lectures will begin with five to ten PRS review questions. Questions will be scored as full points for a correct answer, half points for an incorrect answer, and zero points when no answer is entered (zero points will include questions not answered because a student arrives late or leaves early). The PRS quizzes will total 5 points each day. Two low scores will be dropped from the entire semester. Make-up PRS quizzes **will not be given**. Instead, the average PRS score obtained for the entire course will be substituted for **no more than five** missed PRS quizzes. Beyond five missed PRS quizzes, a “0” score is inserted for missed PRS quizzes. PRS units are required and it is the student’s responsibility to ensure that they **bring functioning PRS units** to class each day!

The **Lecture final exam** will cover all of the semester lecture material and will be given during finals week (May 12th, 8:00 a.m. - 10:00 a.m.). The Lecture final exam will be worth 200 points. The **Laboratory final exam** will cover the semester lab material, is scheduled for April 29th, and is worth 150 points.

Course grading:

Table 1. Mark allocation among course quizzes and exams (after dropping 2 of each of the three types of quizzes).

Lecture Quizzes	480 points
Laboratory Quizzes	440 points
Personal Response Quizzes	140 points
Lecture Final Exam	200 points
Laboratory Final Exam	<u>150 points</u>
Total:	1410 points

Table 2. Grades associated with course averages.

<u>Grade</u>	<u>Percentage of total points for the course</u>
A	90% and above
B	80 through <90%
C	70 through <80%
D	60 through <70%
F	Less than 60%

Table 2 is a guarantee for each grade range, e.g., all students achieving 90% or better will receive an "A" grade, and all students achieving less than 60% will receive an "F" grade. **There will NOT be any opportunity to improve course grades through extra credit assignments and course grades will not be curved!** Therefore, please ensure that you are aware of your standing in the course throughout the semester and the grades needed for each quiz or exam to achieve your desired outcome.

Blackboard: All grades will be input into Blackboard as soon as possible after they have been graded (e.g., typically within a couple of days of the quiz). Announcements will be made and course materials may be posted on blackboard for students to download and print for class.

Students are expected to stay current with blackboard postings.

Students with disabilities: If students would like support because of disabilities, please inform the instructor as soon as possible so that necessary accommodations may be made.

Honor Code: Examinations are given according to the policies of the Honor System within the College of Agriculture, Food Systems, and Natural Resources. Students are expected to neither give nor receive aid on examinations or other assignments that are to be completed as individuals. The Ag College Honor System is described at “<http://www.ag.ndsu.nodak.edu/colag/honor.htm>”. University guidelines for academic honesty are outlined in NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (<http://www.nodak.edu/policy/335.htm>).