



CREDIT COURSE OUTLINE

I. COVER PAGE

(1) PLS 6 _____ (2) Pesticides _____ (3) 3 _____
 Number Title Units

(4) Lecture / Lab Hours:			(8) Classification:		
Course Hours					
	Weekly Lec hours:	3.00		Degree applicable:	X
	Weekly Lab hours:	0		Non-degree applicable:	
	Total Contact hours:	54.00		Basic skills:	
Lec will generate __ hour(s) outside work.			(9)RC Fulfills AS/AA degree requirement:		
Lab will generate __ hour(s) outside work.			(area)		
			General education category:		
(5) Grading Basis:	Grading Scale Only		Major: Agriculture & Technology		
	Pass/No Pass option	X	Plant & Soil Science: Plant Protection		
	Pass/No Pass only		Certificate of: Plant & Soil Science: Pest Control Advisor		
(6) Advisories:			Plant & Soil Science: Plant Protection Intern		
(7) Pre-requisites (requires C grade or better):			Certificate in:		
Corequisites:					
			(10)CSU	Baccalaureate:	X
			(11)Repeatable: (A course may be repeated three times)		0
			(12)C-ID:		
			Proposed Start Date:		Fall 2012

(12) Catalog Description:
 Pesticide science is a specialized field requiring knowledge and experience with the laws and regulations, chemistry, biology and technology for safe and economical control of plant competitors.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

- Upon completion of this course, students will be able to:
- I. Effectively select a pesticide based on its mode of action.
 - II. Recommend a chemical control that avoids pesticide resistance.
 - III. Develop effective and economical insecticide, herbicide and fungicide plans.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

- In the process of completing this course, students will:
- I. Be aware of pesticide toxicities and persistence in the environment.
 - II. Be updated on the most current technology related to pesticides.
 - III. Know where and how to find specific information on insecticide, herbicides and fungicides.

IV. COURSE OUTLINE:

Lecture Content:

- I. Introduction to Pesticides
- II. Pesticides and Environmental Considerations
 1. Endangered Species
 2. Resistance
- III. Insects
 1. Methods of Control
 2. Insecticide Classification
- IV. Plant Disease Agents
 1. Fungicides
- V. Vertebrate Pests

- VI. Weeds
 - 1. Identification and Control Methods
 - 2. Herbicide Classification
 - 3. Herbicide Modes of Action
 - 4. Harvest Aids and Growth Regulators
- VII. Integrated Pest Management
- VIII. Pesticide Laws, Liability and Recordkeeping
- IX. The Pesticide Label
- X. Pesticide Safety
- XI. Pesticide Formulations and Adjuvants
- XII. Pesticide Application Equipment
- XIII. Calibration
- XIV. Pesticide Calculations and Formulas
- XV. Pesticide Transportation, Storage, Decontamination and Disposal

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

- I. Sample Text Title:
 - 1. Recommended - Bohmont, B.L. *The Standard Pesticide User's Guide*, ed. 7th Pearson-Printice Hall, Upper Saddle River, NJ, 2007,

II. Other Readings

- Global or international materials or concepts are appropriately included in this course
- Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

Case studies of pesticide resistance, abuse and success as observed on the global level will be utilized in lecture and online presentations.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B, or C.

A. Writing			
Check either 1 or 2 below			
	1. <i>Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.</i>		
X	2. <i>Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.</i>		
	a) essay exam(s)		d) written homework
	b) term or other paper(s)		e) reading reports
	c) laboratory report(s)		f) other (specify)

Required assignments may include but are not limited to the following:

B. Problem Solving			
Computational or non-computational problem-solving demonstrations, including:			
X	a) exam(s)		d) laboratory reports
X	b) quizzes		e) field work
X	c) homework problems		f) other (specify):

Required assignments may include but are not limited to the following:

C. Skill demonstrations, including:			
X	a) class performance(s)	X	c) performance exams(s)
	b) field work		d) other (specify)

Required assignments may include but are not limited to the following:

D. Objective examinations including:			
X	a) multiple choice	X	d) completion
X	b) true/false		e) other (specify):
X	c) matching items		

COURSE GRADE DETERMINATION:

Description/explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

Final Exam = 25-35% Mid-term Exam = 20-25% Online Assignments = 40-50%

VII. EDUCATIONAL MATERIALS

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

Validation Language Level (check where applicable):

	College-Level Criteria Met	
	YES	NO
Textbook	<u> X </u>	<u> </u>
Reference materials	<u> X </u>	<u> </u>
Instructor-prepared materials	<u> X </u>	<u> </u>
Audio-visual materials	<u> X </u>	<u> </u>

Indicate Method of evaluation:

Used readability formulae (grade level 10 or higher)	<u> </u>
Text is used in a college-level course	<u> X </u>
Used grading provided by publisher	<u> X </u>
Other: (please explain; relate to Skills Levels)	<u> </u>

<i>Computation Level</i> (Eligible for MATH 101 level or higher where applicable)	<u> </u>	<u> X </u>
Content		
Breadth of ideas covered clearly meets college-level learning objectives of this course	<u> X </u>	<u> </u>
Presentation of content and/or exercises/projects:		
Requires a variety of problem-solving strategies including inductive and deductive reasoning.	<u> X </u>	<u> </u>
Requires independent thought and study	<u> </u>	<u> X </u>
Applies transferring knowledge and skills appropriately and efficiently to new situations or problems.	<u> X </u>	<u> </u>

List of Reading/Educational Materials

Recommended - Bohmont, B.L. *The Standard Pesticide User's Guide*, ed. 7th Pearson-Printice Hall, Upper Saddle River, NJ, 2007,

Comments:

 This course requires special or additional library materials (list attached).
 This course requires special facilities:

Attached Files:

<p><u>BASIC SKILLS ADVISORIES PAGE</u> The skills listed are those needed for eligibility for English 125, 126, and Math 201. These skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least <u>three</u> major basic skills needed at the beginning of the target course and check off the corresponding basic skills listed at the left.</p> <p><u>Check the appropriate spaces.</u></p> <p><u> </u> Eligibility for Math 201 is advisory for the target course. <u> </u> Eligibility for English 126 is advisory for the target course. <u> </u> Eligibility for English 125 is advisory for the target course.</p> <p><i><u>If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.</u></i></p>
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REQUISITES
No requisites

JUSTIFICATION OF LIMITATION ON ENROLLMENT

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. Be mindful of the disproportionate impact the limitation will have on specific groups of students. It is important to determine if the limitation will disproportionately keep under-represented students from enrolling in the course or block of courses.

Describe the reasons for limiting the enrollment.

Course Designator: PLS 6
Course Title(s): Pesticides
Rationale for Limiting Enrollment: 0