

**PROPOSAL FOR COURSE CHANGE**

To: Curriculum Committee

From: **Agriculture Department**

Date submitted: **November 2, 2007**

Request for: Course change \_\_\_\_\_ Course deletion \_\_\_\_\_ Course addition **X**  
(Excluding course credit hour changes)

Submitted by: **Mike W. Fairbanks**

Approved by: Department Head: *Willy Hoefler*  
Dean of School: *Mike W. Fairbanks*

Reviewed by: Registrar: *Gammy Woods*  
Vice President:

If this is an addition of a new course, fill in the following and attach a syllabus (syllabus should include course objectives, and outline of the course with sufficient details to illuminate course content, and a bibliography. The Curriculum Committee/Graduate Council does not need evaluation and testing procedural information nor does it need excessively long bibliographies).

- I. Catalog description: **Advanced concepts and techniques used in modern pest control practices and the chemistry and environmental fate of pesticides. Prerequisites: AGPS 1003, AGPM 3104, AGPS 3053, Junior standing or consent of instructor.**

Number: **AGPM 3124**

Title for Catalog: **Applied Pest Control**

\*Title for Course Inventory (24 characters):

Description: **This course will introduce the student to pesticide application techniques, calibration of spray equipment, chemistry of pesticides, efficacy and environmental fate of pesticides.**

Effective date or term: **Spring 2009**

\*Course fees: **None**

- II. Justification and feasibility of course:

- A. What is the need for this course? **This course will serve as an applied pest management course and will emphasize hands-on learning. It will provide an opportunity to apply theories learned in the class room in a small plot research environment.**

*app CC 11/19/07*  
*app FS 12/3/07*

Who will take it? **This course should have broad appeal and be of particular interest to pest management, horticultural and turf grass students.**

- B. How does it relate to other work being offered by your department? Is there an overlap with other courses in the department? **This course will be part of the pest management emphasis in the Department of Agriculture and will not overlap with other courses offered within the department.**
- C. Is this course part of any general plan of development within your department? Explain. **This course will be part of the general plan to develop a pest management option to go along with the Agricultural Business degree to help prepare our students for job opportunities in the area of agricultural pest management.**
- D. How often will the course be offered? **Once a year.**
- E. How will the course be staffed? **With current personnel.**
- F. When applicable, state with which departments you have specifically coordinated this change? (If unable to identify coordinating departments that change affects, Academic Affairs can offer assistance in identifying course use.)

List Department Head/  
Program Director Consulted:  
(Add to list as needed)

Indicate Support  
for Proposal  
(yes/no)

Date:

1. Dr. Theresa Herrick

*Theresa Herrick* *yes* *11-8-07*

2.

3.

4.

5.

If no, please attach explanation from responding Department Head indicating why they do not support the proposal.

**\*Note: Each new course proposal must include a short explanation describing how the new course integrates with the assessment process of the department in which the course will be taught.**

This program will fit the department's assessment process by addressing the following objectives:

- Understand basic micro and macro principles as they relate to agriculture.

- Understand the basic principles of agricultural marketing and finance.
- Understand basic agri-business management principles and techniques of the agri-business industry.
- Understand the basic principles in agricultural pest management
- Understand basic principles of soils and waste management in production agriculture.
- Have a basic knowledge of computer technology.

**Syllabus**  
**AGPM 3124**  
**Applied Pest Control**

**Course Description:** Advanced concepts and techniques used in modern pest control practices and the chemistry and environmental fate of pesticides. Prerequisites: AGPS 1003, AGPM 3104, AGPS 3053, Junior standing or consent of instructor.

**Course Objectives:** Students should have working knowledge of the following concepts:

1. Use of modern spray equipment
2. Calibration techniques
3. Pesticide efficacy
4. Pesticide safety
5. Environmental fate of pesticides

**Textbooks:**

Ahrens, W.H. *Herbicide Handbook*. 2007. Weed Sc. So. of Am. (9<sup>th</sup> ed.)

Perry, A.S., Yamamoto, I., Ishaaya, I. and R. Y. Perry. *Insecticides in Agriculture and Environment: Retrospects and Prospects*. 1998. Springer

**Course Schedule:**

<u>Week</u>	<u>Topic</u>
1.	Toxicology / efficacy of insecticides
2.	Organochlorine insecticides
3.	Organophosphate insecticides
4.	Carbamate insecticides
5.	Botanical insecticides
6.	Synthetic pyrethroids
7.	Neonicotinoids and Insect Growth Regulators
8.	Environmental fate of insecticides
9.	Entry and movement of herbicides in plants
10.	Modes and sites of action of herbicides
11.	Acid amide herbicides
12.	Benzonitrile herbicides
13.	Dinitroaniline herbicides
14.	Growth regulator-type herbicides
15.	Imidazolinone herbicides
16.	Final Exam

**Syllabus**  
**AGPM 3124**  
**Applied Pest Control (Lab)**

**Course Description:** Advanced concepts and techniques used in modern pest control practices and the chemistry and environmental fate of pesticides. Prerequisites: AGPS 1003, AGPM 3104, AGPS 3053, Junior standing or consent of instructor.

**Course Objectives:** Students should have working knowledge of the following concepts:

1. Small plot experimental design
2. Sprayer calibration
3. Identification of herbicide injury to plants
4. Insect sampling / treatment techniques

**Textbooks:**

None

**Course Schedule:**

<u>Week</u>	<u>Topic</u>
1.	Insect collection / sampling techniques
2.	Insecticide efficacy experiments
3.	Insecticide efficacy experiments
4.	Insecticide efficacy experiments
5.	Experiment results / presentation
6.	Sprayer calibration
7.	Small plot experimental design
8.	Plot lay-out and weed identification
9.	Herbicide selection
10.	Broadleaf vs. grass herbicides
11.	Herbicide application in small plots
12.	Data collection from small plots
13.	Experiment results and presentations
14.	Environmental fate of pesticides
15.	Pesticide effects on non-target species
16.	Final exam