

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: *John White*

Reviewed by: Registrar: *Gammay Knodes*
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: **A systematic approach utilizing biological, cultural and genetic control methods to suppress pest numbers in agroecosystems. Prerequisite: AGPS 1003, Junior standing or consent of instructor.**

Number: **AGPM 4103**

Title for Catalog: **Integrated Pest Management**

*Title for Course Inventory (24 characters):

Description: **Integrated Pest Management is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.**

Effective date or term: **Spring 2009**

*Course fees: **None**

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

II. Justification and feasibility of course:

- A. What is the need for this course? **Agricultural resources are becoming constrained by pests that are increasingly becoming resistant to pesticides, the increasing cost of production, increasing human population and the dwindling amount of arable land. With these constraints comes a need to train pest management professionals that understand pest dynamics and their interaction with agroecosystems. This will only serve to meet the evolving needs of farmers and ranchers and will add value to the entire agriculture production system as a whole.**

Who will take it? **Primarily agricultural business majors seeking an emphasis in pest management and turf grass management 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 is a new course that will be part of the pest management emphasis in the Department of Agriculture. This course will serve to anchor concepts learned in Weed Ecology, Plant Pathology, Entomology and Weed/Insect control.**

- 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.**

How often will the course be offered? **It is anticipated that this course will be initially be taught every spring semester.**

- D. How will the course be staffed? **With current personnel.**

- E. 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

2.

3.

4.

5.

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

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 4103
Integrated Pest Management

Course Description: A systematic approach utilizing biological, cultural and genetic control methods to suppress pest numbers in agroecosystems. Prerequisite: AGPS 1003, Junior standing or consent of instructor.

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

1. The role that ecology plays in the development of rational and sustainable pest management.
2. Ecologies of natural enemies and their usefulness in IPM
3. Application of integrated management strategies to solve complex pest problems.
4. Genetically modified crop plants and their role in agroecosystems.

Textbooks:

Kogan, M and P. Jepson Eds. 2007. *Perspectives in ecological theory and integrated pest management*. Cambridge.

Pedigo, L. P. and M.E. Rice. 2006. *Entomology and pest management* (5th ed.) Pearson Prentice Hall

Course Schedule:

<u>Week</u>	<u>Topic</u>
1.	Sustainable agriculture
2.	Concept of integrated pest management
3.	Arthropod pest behavior and IPM
4.	Plant-insect interactions
5.	Conservation, biodiversity and IPM
6.	Ecological risks of biological control agents
7.	Ecology of natural enemies
8.	Genetically engineered crop plants
9.	Host-plant resistance
10.	Chemical control of pests
11.	Ecotoxicology and the fate of pesticides
12.	Ecotoxicology and the fate of pesticides
13.	Agroecology: a renewed ecological foundation for pest management
14.	Emerging trends in IPM
15.	Presentations
16.	Final Exams