

# CERTIFICATE IN INTEGRATED PEST MANAGEMENT

The undergraduate Certificate in Integrated Pest Management (IPM) will equip students with in-depth knowledge of principles of integrated management of pest insects, weeds, and diseases associated with managed and natural landscapes. The students will learn about principles underlying integrated pest management, become familiar with key pests, and learn how to apply IPM in managed landscapes with a goal of minimizing environmental and economic impacts of pest control. This certificate is an excellent choice for students interested in entering the workforce immediately after graduation, as well as professionals that require certification in IPM.

The certificate will prepare the students for careers in crop protection, pest management education and policy, among others.

## Learning Objectives

Upon successful completion, students will be able to demonstrate proficiency in each of the following learning objectives:

**Technical competencies:** Integrate the knowledge of Integrated Pest Management (IPM) to address pest management needs.

1. Demonstrate expertise in the key principles of IPM and its application to managing pests.
2. Identify key pests in natural and managed ecosystems.
3. Evaluate results and information from technical and scientific literature.

**Agricultural literacy:** Demonstrate an understanding of the importance of implementing IPM in natural and managed systems and its role in addressing the economic needs, environmental sustainability, and human wellbeing.

1. Develop coherent, objective arguments for use of IPM in natural and managed ecosystems.
2. Assess the alignment of pest management tactics with principles of IPM.
3. Explain how IPM can address relevant environmental and social issues.

**Leadership and Professionalism:** Develop professional and leadership skills to succeed in future careers.

1. Organize and work effectively within diverse teams to solve complex problems and achieve desired outcomes in natural and managed ecosystems.
2. Manage one's time effectively, work independently, take initiative, and collaborate with colleagues on group class projects.

**Communication:** Develop professional communication skills suitable for diverse audiences, with an emphasis on sharing scientific results in written, oral, and graphical forms.

1. Develop materials and resources to promote IPM in suppression of pests in natural and managed ecosystems.

## Requirements Effective Fall 2024

Additional coursework may be required due to prerequisites.

| Code  | Title                             | Credits  |
|---|-----------------------------------|----------|
| AB 420  | Horticultural Entomology          | 2        |
| AB 451  | Integrated Pest Management        | 3        |
| Select a minimum of 4 credits from the following: |                                   | 4        |
| AB 410  | Understanding Pesticides          |          |
| BSPM 308  | Ecology and Management of Weeds   |          |
| BSPM 361  | Elements of Plant Pathology       |          |
| BSPM 365  | Integrated Tree Health Management |          |
| <b>Program Total Credits:</b>                     |                                   | <b>9</b> |