



Course Description

IPM2635 | Introduction to Plant Pathology | 3.00 credits

The students will learn to identify diseases that affect plants and management practices for different types of plant diseases. Environmental factors contributing to a plant's susceptibility to a particular disease will also be discussed. Methods of prevention, eradication, and control will be given for each specific disease.

Course Competencies:

Competency 1: The student will be able to determine the role of the environment in plant disease development by:

1. Recognizing common plant symptoms caused by organismal diseases
2. Identifying the mechanisms used by pathogens to infect plant tissues
3. Explaining the differences in management practices for diseases caused by both biotic and abiotic factors

Competency 2: The student will be able to demonstrate knowledge of the principles of disease management by:

1. Defining the plant disease triangle
2. Defining and giving an example of a plant disease cycle
3. Understanding how people affect the environment of plants in ways that increase disease
4. Discussing methods used by people to limit the spread of plant disease

Competency 3: The student will recognize and manage plant diseases caused by fungi by:

1. Defining the organismal characteristics of fungi, including reproduction characteristics
2. Explaining how fungi survive and spread
3. Determining how fungal diseases are diagnosed and managed
4. Listing common fungal diseases affecting plants in South Florida

Competency 4: The student will recognize and manage plant diseases caused by bacteria by:

1. Defining the organismal characteristics of bacteria and relating these characteristics to visible symptoms of bacterial infection of plants
2. Explaining how bacteria survive and spread
3. Determining how bacterial diseases are diagnosed and managed
4. Listing common bacterial diseases affecting plants in South Florida

Competency 5: The student will recognize and manage plant diseases caused by nematodes by:

1. Defining the organismal characteristics of nematodes
2. Explaining how nematodes survive and spread
3. Determining how nematode diseases are diagnosed and managed
4. Listing common nematode diseases affecting plants in South Florida

Competency 6: The student will recognize and manage plant diseases caused by viruses by:

1. Defining the organismal characteristics of viruses, including reproduction characteristics
2. Explaining how viruses survive and spread using vectors
3. Determining how viral diseases are diagnosed and managed
4. Listing common viral diseases affecting plants in South Florida

Learning Outcomes:

- Solve problems using critical and creative thinking and scientific reasoning
- Describe how natural systems function and recognize the impact of humans on the environment