University of Florida-IFAS Plant Medicine Program

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Rationale

According to most estimates, pests of all kinds (weeds, arthropods, pathogens, etc.) consistently destroy 30-40% of all plant produce. Worldwide loss to crop production amounts to $400-500 billions of dollars annually. Post-harvest losses by insects and plant pathogens further eliminate vitally needed food, feed, and fiber especially in developing countries. Suboptimal growing conditions caused by nutrient and water imbalances, improper soil chemistries, and toxic materials also represent significant challenges to plant health.

Human and animal health professions have evolved practitioners, physicians (MDs) and veterinarians (DVMs), as a means of synthesizing and implementing complex health information. We believe that similarly trained individuals, ***Plant Doctors***, knowledgeable in all aspects of the prevention, diagnosis, and management of plant health problems are vitally needed worldwide. To that end, in 1999, the University of Florida established the world's first doctoral level program leading to the Doctor of Plant Medicine (DPM) degree.

Curriculum

The objective of this 3 to 4-year multidisciplinary program is to train students in all aspects of the prevention, diagnosis and management of plant health problems and to prepare them for interesting and rewarding careers. Students are not required to conduct reserach or write a dissertation. Instead they take 90 credit hours of graduate classes and 30 of internships in all relevant departments including Agronomy, Entomology/Nematology, Forestry, Horticulture, Pathology and Soil and Water Science.

The core courses and internships for the DPM degree total 70-71 and 11 credit hours, respectively (Refer to Tables 1 and 2). This leaves 19-20 credits of elective courses and 19 of elective internships with which students may specialize by crop or other professional interest. DPM students are able to specialize through a number of certificates that include: Plant Pest Risk Assessment and Management, Environmental Policy and Management, Tropical Conservation and Development, and Tropical Agriculture .

Table 1. Core Plant Medicine Courses

Department	Credits
Plant Sciences	16
Soil Science	3
Entomology	19-20
Nematology	3
Plant Pathology	21
Other (Agric. Law, Integrated Plant Medicine, etc.)	8
Total	**70-71**

Elective courses = 19-20 credits (Total = 90)

Paid internships are available locally and worldwide

Table 2. Core Plant Medicine Internships

Department	Credits
Soil Science	2
Entomology	4
Nematology	2
Plant Pathology	3
Total	**11**

Elective internships = 19 credits (Total = 30)

Funding

One-year graduate assistantships are available to qualified in-coming DPM students. This enables them to establish Florida residency and qualify for the lower in-state tuition rate. Subsequent years of their program of study are funded by a variety of strategies that include research/teaching assistantships with the component departments (Agronomy, Entomology/Nematology, etc.), fellowships/scholarships, part time jobs, and low cost student loans.

Careers

The broad-based course of study required for the DPM degree has afforded graduates a wide variety of career paths including:

- ***Private Practice*** – either as independent consultants or members of crop consulting firms
- ***Agribusinesses*** – (large plant/crop production firms and seed companies) as plant health specialist or technical/sales specialists
- ***Agrichemical Companies*** - as technical/sales representatives
- ***Cooperative Extension Service*** – as single or multi-county agents or in other positions
- ***Education*** – as teaching faculty of agriculture, biology, microbiology, and other related subjects at 2- and 4-year colleges and universities
- ***International Agriculture*** – International graduates of the program may be particularly helpful to the agriculture of their home countries because of the practical nature of the DPM degree.
- ***Non-profit organizations*** - as plant health and regulatory specialists
- ***Municipalities*** – as plant health management specialists for parks, botanical gardens, and other public plantings
- ***Regulatory Agriculture*** – with federal agencies such as USDA-APHIS/PPQ, EPA, or state plant health agencies

For More Information Visit:

http://www.dpm.ifas.ufl.edu/