**PLANT PATHOLOGY**

**Department of Plant Pathology**

**College of Agriculture and Natural Resources**

**101 Current Issues and Frontiers in Plant Pathology**  
Fall. 1(0)

Basic principles of plant disease and plant pathogens. Current topics and future opportunities in the discipline of plant pathology.

**105 Fundamentals of Applied Plant Pathology**  
Spring. 2(2-2) R: Open only to students in the Institute of Agricultural Technology. SA: CSS 055 Not open to students with credit in CSS 055 or PLP 405.

Diseases of major agronomic and horticultural plants. Disease management. Offered first ten weeks of the semester.

**205 Pests, Society and Environment**  
Fall, Spring. 3(3-0) Interdepartmental with Entomology, Administered by Entomology.  

**362 Management of Turfgrass Pests**  
Fall. 4(3-2) Interdepartmental with Crop and Soil Sciences and Entomology. Administered by Crop and Soil Sciences. P.M: CSS 232

Chemical, biological, and cultural methods of managing weeds, diseases, and insect pests of turfgrass. Environmental considerations in pest management.

**402 Biology of Fungi**  
Fall. 3(2-3) Interdepartmental with Plant Biology. Administered by Plant Biology. P.M: BS 110 or BS 111 or PLB 105 or LBS 145 or LBS 148H or LBS 149H SA: BOT 407

Major groups of fungal characteristics, habitats, and diversity. Significance of fungi in nature and their economic importance.

**405 Plant Pathology**  
Spring. 3(2-3) P.M: (BS 110 and BS 111) or (PLB 105 and PLB 106) or ((LBS 144 and LBS 145) and completion of Tier I writing requirement) SA: BOT 407

Plant diseases and the organisms that cause them. Principles of disease management including application of chemicals, plant breeding, biological control, and genetic engineering.

**407 Diseases and Insects of Forest and Shade Trees**  
Spring. 4(3-3) Interdepartmental with Entomology and Plant Biology. Administered by Plant Pathology. P.M: (PLB 105 or BS 110 or LBS 144 or LBS 148H) and (IP 218 or FOR 204 or HRT 211) and completion of Tier I writing requirement) SA: BOT 407

Diseases, insects, and environmental problems affecting trees in forests, parks, suburbs, and nurseries. Methods of control.

**490 Independent Study**  
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

Independent study of plant pathology on a laboratory or library research program of special interest to the student.

**491 Selected Topics in Plant Pathology**  
Fall, Spring. Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P.M: PLP 405 or PLP 407

Selected topics in plant pathology of current interest and importance.

**492 Seminar**  
Spring. 2(2-0) P.M: (PLP 498) and completion of Tier I writing requirement RB: (PLP 405)

Capstone course. Experience in scientific writing, oral presentations, professional preparation, and current developments in plant pathology.

**493 Professional Internship in Plant Pathology**  
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. A student may earn a maximum of 6 credits for any or all of these courses: ABM 493, AEE 493, ANR 493, ANS 493, CSS 493, EEP 493, FIM 493, FSC 493, FW 493, HRT 493, PKG 493, PLP 493, PPR 493, and RD 493. R: Open only to juniors or seniors in the Plant Pathology major. Approval of department; application required.

Supervised professional experiences in agencies and businesses related to plant pathology.

**498 Undergraduate Research**  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. A student may earn a maximum of 6 credits for any or all of these courses: ABM 493, AEE 493, ANR 493, ANS 493, CSS 493, EEP 493, FIM 493, FSC 493, FW 493, HRT 493, PKG 493, PLP 493, PPR 493, and RD 493. R: Open only to juniors or seniors in the Plant Pathology major. Approval of department; application required.

Faculty supervised laboratory. Field research in plant pathology.

**810 Current Concepts in Plant Pathology**  
Spring. 3(3-0) RB: PLP 405 or PLB 414 or PLB 415 SA: BOT 810

Recent findings in mycology, plant virology, bacteriology, nematology, physiology, and epimycology.

**812 Epidemiology of Plant Diseases**  
Spring of odd years. 3(3-0) RB: PLP 810 SA: BOT 812

Populations of plant pathogens within populations of plant hosts as affected by the environment and humans.

**820 Plant Reproductive Biology and Polyploidy**  
Spring of odd years. 1(3-0) Interdepartmental with Crop and Soil Sciences and Forestry and Horticulture and Plant Biology. Administered by Horticulture. RB: Introductory Genetics and Plant Biology

Genetic processes underlying variations in plant reproductive biology and polyploidy. Utilization of these characteristics in plant breeding.

**821 Crop Evolution**  
Spring of odd years. 1 credit. Interdepartmental with Crop and Soil Sciences and Forestry and Horticulture and Plant Biology. Administered by Horticulture. RB: Introductory Genetics and Plant Biology

Cultural and biological aspects of the evolution of domestic plants.

**822 Historical Geography of Crop Plants**  
Spring of odd years. 1 credit. Interdepartmental with Crop and Soil Sciences and Forestry and Horticulture and Plant Biology. Administered by Horticulture. RB: Introductory Genetics and Plant Biology

Development and spread of the major crop species.

**847 Advanced Mycology**  
Spring of even years. 4(2-4) Interdepartmental with Plant Biology. Administered by Plant Pathology. RB: BOT 402 SA: BOT 847

Systematics, identification, physiology, genetics, and molecular biology of plant pathogenic fungi.

**880 Plant Virology**  
Fall of odd years. 4(2-4) RB: (BMB 462 and BOT 810) SA: BOT 880

Biological and molecular aspects of viruses causing plant disease.

**881 Molecular and Biochemical Plant Pathology**  
Spring of odd years. 3(2-2) RB: (BMB 462 and ZOL 341 and PLP 810) and (BOT 414 or BOT 415) SA: BOT 881

Biochemical and molecular bases of host-pathogen interactions. Mechanisms of pathogenicity and the nature of disease resistance.

**884 Prokaryotic Diseases of Plants**  
Fall of even years. 3(3-0) Interdepartmental with Plant Biology. Administered by Plant Pathology. RB: PLP 405 SA: BOT 884


**885 Plant Diseases in the Field**  
Summer of odd years. 2(1-3) RB: PLP 810 R: Open only to graduate students. SA: BOT 885

Diagnosis of plant diseases and disorders in a field setting. Field trips and independent study required.

**890 Independent Study**  
Fall, Spring. Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students.

Individual study in laboratory, field or library research in plant pathology.

**893 Selected Topics**  
Fall, Spring, Summer of odd years. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students.

Current topics in plant pathology.

**894 Seminar in Plant Pathology**  
Fall, Spring. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course.

Review, organization, analysis and oral presentation of research.

**899 Master's Thesis Research**  
Fall, Spring. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

Master's thesis research.
Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course.
Doctoral dissertation research.