

## PLANT PATHOLOGY PLP

### Department of Plant Pathology College of Agriculture and Natural Resources

- 101 Current Issues and Frontiers in Plant Pathology**  
Fall. 1(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.  
Nature of pests and their impact on society. Principles of integrated pest management in relation to environmental quality and sustainable development.
- 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 402  
Major groups of fungi: 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 405 Not open to students with credit in 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 ((PLB 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, field 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, PRR 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. P:M: Completion of Tier I writing requirement. R: Approval of department  
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, disease physiology and epidemiology.
- 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.
- 870 Nematode Management in Crop Systems**  
Summer of even years. 3(2-3) Interdepartmental with Entomology. Administered by Entomology. RB: PLP 405 SA: BOT 870  
Biology, host parasite relationships and management by farming and cropping systems of selected nematode diseases of economic plants.
- 880 Plant Virology**  
Fall of odd years. 4(2-4) RB: (BMB 462 and BOT 810) SA: BOT 880  
Biology 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. 4(2-4) RB: (BOT 810) SA: BOT 884  
Prokaryotic genera associated with plant diseases. Identification, physiology, and genetics. Laboratory techniques.
- 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.  
Current topics in plant pathology.

## **Plant Pathology—PLP**

### **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, Summer. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

Master's thesis research.

### **999 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.