PLP—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

362 Management of Turfgrass Pests

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.

450 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 405) 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, EEH 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 812. 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 510 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. 3(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

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 BOL 401) 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 (BMA 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. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Current topics in plant pathology.
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.

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.

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.