PLANT PATHOLOGY (PLPA)

PLPA Class Schedule (https://courses.illinois.edu/schedule/DEFAULT/DEFAULT/PLPA)

Courses

PLPA 199 Undergraduate Open Seminar credit: 1 to 5 Hours. Experimental course on a special topic in plant pathology. Topic may not be repeated except in accordance with the Code. May be repeated in the same or subsequent terms. No more than 12 hours may be counted toward graduation.

PLPA 200 Plants, Pathogens, and People credit: 3 Hours. Plant diseases and their impact on food supplies and human health are studied in lectures, demonstrations and discussions. Issues of food production and safety, pesticide use and human health, and the environment are considered. Includes the biology of pathogens that cause plant disease. Designed for non-science and science majors. Prerequisite: RHET 105 or equivalent. This course satisfies the General Education Criteria for: Advanced Composition

PLPA 204 Introductory Plant Pathology credit: 3 Hours. Concepts relating to causal agents of representative plant diseases, symptoms and diagnosis, modes of infection and spread, effects of environment on disease development, and methods of control. This course satisfies the General Education Criteria for: Nat Sci Tech - Life Sciences

PLPA 395 Undergrad Research or Thesis credit: 1 to 4 Hours. Individual research, special problems, thesis, development and/or design work under the supervision of an appropriate member of the faculty. May be repeated to a maximum of 12 hours.

PLPA 401 Plant Pathogenic Fungi credit: 4 Hours. Principles of the biology, ecology and pathogenesis of fungi that cause plant diseases; morphology, classification, and history of these pathogens. The course includes both lecture and laboratory components. 4 undergraduate hours. 4 graduate hours. Offered in alternate years. Prerequisite: One year of biology or plant biology; and plant and animal genetics; and an introductory plant pathology course; or consent of instructor.

PLPA 402 Phytoparasitic Nematodes credit: 2 Hours. Study of plant-pathogenic nematodes with emphasis on economically important groups; nematode morphology, identification, classification, development biology, ecology, and host-parasite relationships; interaction with fungi, bacteria and viruses in plant disease development, experimental and diagnostic techniques; and symptomology and control. 2 undergraduate hours. 2 graduate hours. Prerequisite: An introductory course in plant pathology and an introductory course in zoology, or consent of instructor.

PLPA 404 Plant Virology credit: 2 Hours. Current knowledge of viruses and the diseases they cause in plants studied in lectures, discussions and laboratories. Topics include virus structure, replication, expression, taxonomy and transmission and viral disease detection, diagnosis, epidemiology and management. 2 undergraduate hours. 2 graduate hours. Offered in alternate years. Prerequisite: An introductory course in plant pathology and an introductory course in genetics, or consent of instructor.

PLPA 405 Plant Disease Diagnosis & Mgmt credit: 3 Hours. Field and laboratory techniques in plant disease diagnosis and appraisal; identification of diseases of small grains, turf, corn, soybeans, forage crops, vegetables, fruit, forest and shade trees, and ornamentals, both on field trips and in laboratory exercises. Includes fundamentals of disease management. 3 undergraduate hours. 3 graduate hours. Prerequisite: PLPA 204 or equivalent.

PLPA 406 Phytobacteriology credit: 2 Hours. Provides up-to-date coverage of prokaryotes that cause plant diseases. Lectures, discussions, and laboratories cover taxonomy, molecular biology, etiology, detection and identification, epidemiology and management of major plant pathogenic prokaryotes. 2 undergraduate hours. 2 graduate hours. Offered in alternate years. Prerequisite: An introductory course in Plant Pathology and Microbiology, or consent of instructor.

PLPA 407 Diseases of Field Crops credit: 3 Hours. Studies the symptoms of major field crop diseases, life histories of causal organisms, and methods of control. Lecture and laboratory. Same as CPSC 407. 3 undergraduate hours. 3 graduate hours. Prerequisite: PLPA 204 or PLPA 401.

PLPA 504 Plant Nematology credit: 4 Hours. Comprehensive study of plant-feeding nematodes with emphasis on economically important groups; nematode morphology, identification, classification, developmental biology, ecology, and host-parasite relationships; interaction with fungi, bacteria, and viruses in plant disease development; experimental and diagnostic techniques; symptomatology and control. Offered in alternate years. Prerequisite: PLPA 204 or PLPA 401; an introductory course in animal biology; or consent of instructor.

PLPA 509 Mol Bio of Microbe-Plant Inter credit: 3 Hours. Detailed analysis of the microbe-plant interaction at the molecular level. Covers commensal, symbiotic, and pathogenic interactions from viewpoint of both plant and microbe. Emphasizes microbial and plant genes involved in the interactions, their organization, regulation of expression and the nature and function of the encoded gene products. Same as MCB 511. Offered in alternate years. Prerequisite: MCB 421 or PLPA 404 or equivalents.

PLPA 599 Thesis Research credit: 0 to 16 Hours. Individual study and basic and/or applied research related to plant disease; required of all students working toward the Master of Science or Doctor of Philosophy in Plant Pathology. 0 to 16 graduate hours. No professional credit. Approved for S/U grading only. May be repeated to a maximum of 16 hours if topics vary.