

PLANT PATHOLOGY (PLPT)

PLPT 801 Biology of Plant Pathogens

Crosslisted with: AGRO 801, HORT 801

Prerequisites: PLPT 369 or equivalent.

Description: Molecular and cellular approach to the study of plant pathological principles.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

Prerequisite for: PLPT 866; PLPT 965, AGRO 965, HORT 965

PLPT 802 Ecology and Management of Plant Pathogens

Crosslisted with: AGRO 802, HORT 802

Prerequisites: PLPT 369 or equivalent; an introduction to biochemistry course

Description: Principles of plant disease epidemiology and disease control through cultural, biological, chemical and host plant resistance strategies.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

Prerequisite for: PLPT 866; PLPT 965, AGRO 965, HORT 965

PLPT 813 Biological Control of Pests

Crosslisted with: ENTO 813

Prerequisites: 12 hrs biological sciences and/or agricultural sciences

Description: Principles and practices of using natural enemies and antagonists to manage the abundance of pests and reduce economic losses.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

PLPT 814 Turfgrass Disease Management

Crosslisted with: AGRO 814, HORT 814, PLPT 414, PLAS 414, TLMT 814

Prerequisites: BIOS/PLPT 369 or one semester of introductory plant pathology.

Description: Pathogens, epidemiology, and control of diseases specific to turfgrass.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Grade Pass/No Pass Option

PLPT 815 Corn Diseases

Crosslisted with: PLPT 415

Prerequisites: PLPT 210 or PLPT 369 or equivalent

Notes: Taught online only. This is an 8-week mini-course.

Description: Introduction to the important diseases affecting corn (maize) in Nebraska and other areas of the United States. Pathogen biology, favorable conditions, disease diagnosis based on symptomatology and management strategies are emphasized

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

PLPT 817 Plant Pathology Principles and Application

Crosslisted with: AGRO 817, HORT 817

Prerequisites: 12 hours of prior coursework in the plant sciences

Description: Introduction to the biology of plant pathogenic organisms; pathogen-plant interactions; environmental influences; cultural, resistance, and chemical strategies for plant disease management.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

PLPT 818 Microbial Genetics & Genomics

Crosslisted with: PLPT 418, MBIO 418

Prerequisites: BIOS 206 or PLAS 215.

Notes: BIOS 312 recommended.

Description: Inheritance, exchange, and regulation of genes in prokaryotic microorganisms: gene structure and function; gene transfer and the elements (plasmids, phages, and transposons) involved; DNA mutations, repair, and genetic analysis; genome sequencing, microbial genome databases, and global gene expression analysis.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

PLPT 866 Phytopathogenic Nematodes

Prerequisites: PLPT 801 or 802; and permission

Description: Principles of nematode-induced disease of plants.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

PLPT 867 Plant Associated Microbes

Prerequisites: A course in general microbiology, bacteriology, or mycology. A course in general plant pathology is highly recommended.

Description: Biology, ecology, and taxonomy of bacteria and fungi pathogenic or beneficial to plants. Microorganism isolation from plants and soil. Identification and plant inoculation.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Grade Pass/No Pass Option

PLPT 891 Plant Disease Field Tour

Description: Diseases in Nebraska agricultural, urban, and wildland plant ecosystems; field diagnosis and management. One-week tours will be held in the summer prior to semester of enrollment.

Credit Hours: 1-2

Min credits per semester: 1

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Grade Pass/No Pass Option

PLPT 892 Special Topics in Plant Pathology

Prerequisites: 12 hrs of microbiology, plant science or related fields

Notes: Topics vary.

Credit Hours: 1-4

Min credits per semester: 1

Max credits per semester: 4

Max credits per degree: 12

Grading Option: Graded

PLPT 899 Masters Thesis

Prerequisites: Admission to masters degree program and permission of major advisor.

Description: Research and writing towards the master's thesis

Credit Hours: 1-10

Min credits per semester: 1

Max credits per semester: 10

Max credits per degree: 99

Grading Option: Pass No-Pass

PLPT 963 Genetics of Host-Parasite Interaction

Crosslisted with: AGRO 963, HORT 963

Prerequisites: BIOS 820; and permission

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

PLPT 965 Plant Virology

Crosslisted with: AGRO 965, HORT 965

Prerequisites: PLPT 801 or 802; and permission.

Notes: PLPT 865 is offered odd-numbered calendar years.

Description: Virus molecular biology; virosphere; virus-vector relationships; plant resistance to virus infection economic impact and control of plant diseases by viruses.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

Offered: SPRING

PLPT 968 Seminar in Plant Pathology

Crosslisted with: AGRO 968, HORT 968

Prerequisites: Permission.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Grade Pass/No Pass Option

Offered: SPRING

PLPT 999 Doctoral Dissertation

Prerequisites: Admission to doctoral degree program and permission of supervisory committee chair

Description: Research and writing towards the PhD dissertation

Credit Hours: 1-24

Min credits per semester: 1

Max credits per semester: 24

Max credits per degree: 99

Grading Option: Pass No-Pass