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 414, AGRO 814, HORT 414, HORT 814, PLPT 414, TLMT 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 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
Prerequisites: BIOS 206 or AGRO 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