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 812 Introduction to Plant Pathology
Crosslisted with: AGRO 812, HORT 812
Prerequisites: PLPT 369 or equivalent
Description: Introduction to the biology of plant pathogenic organisms; environmental influences; disease 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 817 Plant Pathology Principles and Application
Crosslisted with: AGRO 817, HORT 817
Prerequisites: 12 hours of microbiology, plant science, or related fields
Description: Principles of disease epidemiology and disease management
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Grading Option: Grade Pass/No Pass Option

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

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

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

PLPT 816 Plant Pathology for Crop Production
Crosslisted with: AGRO 816, HORT 816
Prerequisites: PLPT 369 or equivalent
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 817 Plant Pathology Principles and Application
Crosslisted with: AGRO 817, HORT 817
Prerequisites: 12 hours of microbiology, plant science, or related fields
Description: Principles of disease epidemiology and 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 819 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 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 890 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
Max credits per semester: 1
Max credits per degree: 2
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
Max credits per semester: 1
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
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 893 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 894 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 895 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 896 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 897 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 898 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 899 Special Topics in Plant Pathology
Prerequisites: 12 hrs of microbiology, plant science or related fields
Notes: Topics vary.
Credit Hours: 1-4
Max credits per semester: 1
Max credits per degree: 4
Grading Option: Graded

PLPT 901 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
Max credits per semester: 1
Max credits per degree: 2
Grading Option: Grade Pass/No Pass Option
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