



PLANT PATHOLOGY (PLPT)

PLPT 110 Fantastic Fungi - The Fatal and the Friendly

Description: A survey of the impact of fungi on human history and welfare. Topics include: fungi as agents of plant and human diseases; fungal toxins that impact food safety and indoor air quality; decay and decomposition; fungi as food and fermenters; medicinal fungi and metabolites; and mycorrhizae, mutualism and biodiversity.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

PLPT 210 Plant Pathogens and Disease

Prerequisites: PLAS 131, BIOS 101, ENTO 115, or LIFE 120.

Description: Introduction to fungi, bacteria, nematodes and viruses that cause plant diseases. The impact that plant diseases can have on society and the environment. Strategies used in managing plant diseases in agricultural and landscape environments.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

Prerequisite for: PLPT 400L

PLPT 270 Biological Invaders

Crosslisted with: PLAS 270, NRES 270

Prerequisites: 3 hrs biological sciences.

Description: Impact of exotic species and invasive organisms: agricultural and medical emerging disease; predicting biological invasions; biological control; regulatory, monitoring, and control efforts; ecological impact.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

PLPT 400 Intermediate Plant Pathology

Crosslisted with: BIOS 400, PLPT 800

Prerequisites: PLPT 210 or BIOS 312; concurrent enrollment in PLPT 400L

Description: Exploring the biology of plant pathogens, pathogen-host plant interactions, and environmental influences on plant diseases. Examining cultural, chemical, and biological strategies, along with host resistance, for plant disease management. Builds on topics covered in PLPT 210, with additional emphasis on the strategies employed by the four major groups of plant pathogens, plant responses to disease-causing organisms, and approaches to disease management.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: SPRING

PLPT 400L Intermediate Plant Pathology Lab

Prerequisites: PLPT 210 or BIOS 312; concurrent enrollment in PLPT 400

Notes: BIOS 314 recommended

Description: Companion lab for PLPT 400

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded with Option

Offered: SPRING

Course and Laboratory Fee: \$60

PLPT 414 Turfgrass Disease Management

Crosslisted with: AGRO 814, HORT 814, PLPT 814, 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: Graded with Option

PLPT 415 Corn Diseases

Crosslisted with: PLPT 815

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 418 Microbial Genetics & Genomics

Crosslisted with: PLPT 818, MBIO 418

Prerequisites: BIOS 206 or PLAS 215.

Notes: BIOS 312 is 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

ACE: ACE 10 Integrated Product

PLPT 495 Internship in Plant Pathology

Prerequisites: Junior standing.

Description: Experience in a work place setting that is directly related to Plant Pathology.

Credit Hours: 1-3

Min credits per semester: 1

Max credits per semester: 3

Max credits per degree: 5

Grading Option: Pass No Pass

PLPT 496 Independent Study

Prerequisites: Advanced approval of the plan of study and permission.

Description: Research, literature review, extension of course work, or preparation of teaching materials.

Credit Hours: 1-5

Min credits per semester: 1

Max credits per semester: 5

Max credits per degree: 5

Grading Option: Graded with Option

PLPT 498 Independent Research

Prerequisites: Permission.

Description: Independent research in areas of plant pathology.

Credit Hours: 1-3

Min credits per semester: 1

Max credits per semester: 3

Max credits per degree: 6

Grading Option: Graded with Option

PLPT 499H Honors Thesis

Prerequisites: Admission to the University Honors Program and permission

Notes: AGRI 299H recommended

Description: Conduct a scholarly research project and write a University Honors Program or undergraduate thesis.

Credit Hours: 3-6

Min credits per semester: 3

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded