North Dakota State University

Plant Pathology (PPTH)

PPTH 194. Individual Study. 1-5 Credits.
PPTH 196. Field Experience. 1-15 Credits.
PPTH 199. Special Topics. 1-5 Credits.
PPTH 291. Seminar. 1-5 Credits.
PPTH 292. Study Abroad. 1-15 Credits.
PPTH 294. Individual Study. 1-5 Credits.
PPTH 299. Special Topics. 1-5 Credits.
PPTH 324. Introductory Plant Pathology. 3 Credits.
Etiology, symptomatology and control of representative plant diseases and demonstrations. 2 lectures, 1 laboratory. F.
PPTH 379. Study Tour Abroad. 1-6 Credits.
PPTH 391. Seminar. 1-5 Credits.
PPTH 392. Study Abroad. 1-15 Credits.
PPTH 394. Individual Study. 1-5 Credits.
PPTH 399. Special Topics. 1-5 Credits.
PPTH 454. Diseases Of Field and Forage Crops. 3 Credits.
Etiology, symptomatology, control, and importance of field and forage crop diseases. 2 lectures, 1 laboratory. Prereq: PPTH 324. S (even years) {Also offered for graduate credit - see PPTH 654.}.
PPTH 455. Plant Disease Management. 3 Credits.
Diagnosis and control of horticultural crop diseases. 2 lectures, 1 laboratory. Prereq: PPTH 324. S (odd years) {Also offered for graduate credit - see PPTH 655.}.
PPTH 457. Landscape Plant Pathology. 3 Credits.
Tree and turfgrass pathology with emphasis on disease identification and management strategies for a variety of settings. Two lectures and a 2-hour lab. Prereq: PPTH 324. S (odd years). {offered at the graduate level as PPTH 657}.
PPTH 460. Fungal Biology. 3 Credits.
Fungal ecology, morphology, genetics, physiology, taxonomy, and relevance to humans. 2 lectures, 1 laboratory. Prereq: BIOL 150, PPTH 324. F (even years) {Also offered for graduate credit - see PPTH 660.}.
PPTH 491. Seminar. 1-5 Credits.
PPTH 492. Study Abroad. 1-15 Credits.
PPTH 494. Individual Study. 1-5 Credits.
PPTH 496. Field Experience. 1-15 Credits.
PPTH 499. Special Topics. 1-5 Credits.
PPTH 654. Diseases Of Field and Forage Crops. 3 Credits.
Etiology, symptomatology, control, and importance of field and forage crop diseases. 2 lectures, 1 laboratory. S (even years) {Also offered for undergraduate credit - see PPTH 454.}.
PPTH 655. Plant Disease Management. 3 Credits.
Diagnosis and control of horticultural crop diseases. 2 lectures, 1 laboratory. S (odd years) {Also offered for undergraduate credit - see PPTH 455.}.
PPTH 657. Landscape Plant Pathology. 3 Credits.
Tree and turfgrass pathology with emphasis on disease identification and management strategies for a variety of settings. Two lectures and a 2-hour lab. S (odd years). {offered at the undergraduate level as PPTH 457}.
PPTH 660. Fungal Biology. 3 Credits.
Fungal ecology, morphology, genetics, physiology, taxonomy, and relevance to humans. 2 lectures, 1 laboratory. F (even years) {Also offered for undergraduate credit - see PPTH 460.}.
PPTH 690. Graduate Seminar. 1-3 Credits.
PPTH 695. Field Experience. 1-15 Credits.
PPTH 696. Special Topics. 1-5 Credits.
PPTH 751. Physiology Of Plant Disease. 3 Credits.
Infection, penetration, recognition, nutrient transfer, toxins, photosynthesis, and physiological materials. Use of tools, equipment, and supplies used in the industry and application of basic design styles, holiday designs, and displays. 1 lecture, 1 two-hour laboratory. S (odd years).
PPTH 752. Plant Nematology. 3 Credits.
Nematode morphology, classification, biology, molecular identification and quantification; interaction of nematodes with other pathogens, molecular mechanisms of plant-nematode interactions, and nematode disease management. 2 lectures, 1 two-hour laboratory. F (odd years).
PPTH 754. Plant Disease Epidemiology. 3 Credits.
Temporal and spatial dynamics of diseases and causative pathogens in plant populations. 2 lectures, 1 laboratory. F (even years).
PPTH 755. Population Biology of Plant Pathogens. 3 Credits.
Discussion of the biological processes that affect plant pathogens populations and communities in natural and agricultural settings and how these processes affect disease development and their control.
PPTH 756. Fungicides: Development, Modes of Action, and Development of Resistance. 2 Credits.
The course will provide an understanding of fungicides, their mode of action, the development of resistance, and resistance management strategies.
PPTH 758. Bacterial, Nematode and Viral Diseases of Plants. 4 Credits.
Biology, epidemiology, and management of plant diseases caused by bacteria, nematodes and viruses.
PPTH 759. Host-Parasite Genetics. 3 Credits.
Host-parasite genetics including genetics of plant and pathogens and gene-for-gene relationships. 3 lectures. S (even years).
PPTH 760. Advanced Mycology. 4 Credits.
Biology and classification of fungi. Emphasis on identification, growth and development, physiology, and etiology of fungi. 2 lectures, 2 laboratories. F (odd years).
PPTH 790. Graduate Seminar. 1-3 Credits.
PPTH 791. Temporary/Trial Topics. 1-5 Credits.
PPTH 793. Individual Study/Tutorial. 1-5 Credits.
PPTH 794. Practicum/Internship. 1-10 Credits.
PPTH 795. Field Experience. 1-15 Credits.
PPTH 796. Special Topics. 1-5 Credits.
PPTH 797. Master's Paper. 1-3 Credits.
PPTH 798. Master's Thesis. 1-10 Credits.
PPTH 899. Doctoral Dissertation. 1-15 Credits.