

# Plant Pathology

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Plant pathology researches and extends knowledge to solve plant disease problems by focusing on plant-pathogen interactions at the genomic, cellular, organismal, and ecological levels. Approaches include disease management, epidemiology, molecular biology and host-parasite interactions. Focus areas are bacteriology, bioinformatics, functional genomics, mycology, nematology, virology, soil-borne pathogens and mechanisms of pathogenesis, and host resistance.

## Master's Degree Requirements

There is a core curriculum of a minimum of 12 credit hours that includes PP 501, PP 502, PP 506, PP 707, and PP 601. The core should be supplemented with a minimum of 18 credit hours in courses at the 500 or higher level, which support the focus of the study. Students serve as teaching assistants for one course.

## Doctoral Degree Requirements

Students entering the Ph.D. degree program are expected to take the core curriculum outlined for the Master's degree or have had the equivalent at another institution. Additionally, Ph.D. students must include a departmental-approved ethics course, two credits PP 801, and at least two other 700-level Plant Pathology courses. Ph.D. students serve as teaching assistants for two courses.

## Student Financial Support

A limited number of half-time assistantships are available on a competitive basis. Benefits include in-state tuition, out-of-state tuition and health insurance as covered under the Graduate School's Graduate Student Support Plan. Applicants are considered for assistantship support at time of application. Special supplements to assistantships are available on a competitive basis for outstanding students. Also, many faculty programs have research grant-funded or training grant-funded assistantships. Contact individual faculty regarding availability of research assistantships.

## Other Relevant Information

Fully equipped and staffed laboratories for research are available in addition to greenhouse facilities and environmental growth chambers in the phytotron. Special facilities for experimental work on diseases under field conditions are available at 16 University and NC Department of Agriculture and Consumer Services-related locations throughout the state. Genomics facilities, microcomputers, library, mycological herbarium, digital imaging/graphics equipment programs, and an interdepartmental electron microscopy center are additional features available for the department.

Plant Pathology Program Website (<http://plantpath.cals.ncsu.edu/>)

## Admission Requirements

The general application procedures of the Graduate School noted at the beginning of this section are followed. The Plant Pathology Graduate Program does NOT require the GRE. A detailed statement of applicant interests and goals in plant pathology is very helpful for the admissions committee.

## Applicant Information

- **Delivery Method:** On-Campus
- **Entrance Exam:** None
- **Interview Required:** None

## Application Deadlines

- **Fall:** January 15 (Aid); June 25 (Adm. only)
- **Spring:** August 1 (Aid); November 25 (Adm. only)
- **Summer 1:** March 25 (US); December 15 (Intl)
- **Summer 2:** May 10 (US); December 15 (Intl)

## Degrees

- Plant Pathology (MR) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/plant-pathology/plant-pathology-mr/>)
- Plant Pathology (MS) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/plant-pathology/plant-pathology-ms/>)
- Plant Pathology (PhD) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/plant-pathology/plant-pathology-phd/>)
- Plant Pathology (Minor) (<http://catalog.ncsu.edu/graduate/agriculture-life-sciences/plant-pathology/plant-pathology-minor/>)

## Faculty

### Full Professors

Peter J. Balint-Kurti

David M. Bird

Ignazio Carbone

Christina Cowger

Marc A. Cubeta

Eric Lee Davis

Ralph A. Dean

Shuijin Hu

Steven Lommel

Frank John Louws

David S. Marshall

Peter Ojiambo

Charles H. Opperman

Jean B. Ristaino

David F. Ritchie

Howard D. Shew

Anna Elizabeth Whitfield

Carolyn Young

## **Associate Professors**

James P. Kerns

Lina Maria Quesada

Dorith Rotenberg

Paul B. Shoemaker

Harvey Wesley Spurr

Turner Bond Sutton

Hedwig Hirschm Triantaphyllou

Robert G. Upchurch

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## **Assistant Professors**

Oliver Baars

Michael James Bradshaw

Adrienne Marie Gorny

Daisy Ahumada Hernandez

LeAnn Lux

Alejandra Itzel Huerta Vazquez

David Alan Rasmussen

Sara Michelle Villani

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## **Adjunct Faculty**

Tim Sit

Lindsey Danielle Thiessen

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## **Practice/Research/Teaching Professors**

Jennie R. Fagen

Barbara B. Shew

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## **Emeritus Faculty**

Kenneth Barker

Durward F. Bateman

David M. Benson

Marvin K. Beute

Ellis B. Cowling

Margaret E. Daub

Jeng Sheng Huang

Ronald K Jones

Stephen Robert Koenning

Leon T Lucas

Thomas A. Melton III

Robert D. Milholland

James W. Moyer

Gary A. Payne

Rebeca C. Ruffy