

Mathematics (PhD): Interdisciplinary Mathematics Concentration

Degree Requirements

Code	Title	Hours
Required Courses		9
See "Required Courses by Category" listed below		
Additional Courses ^{1, 2}		63
"Additional Courses" are approved in conjunction with the academic committee to meet 72 total hours		
Total Hours		72

¹ At least 30 credit hours of MA coursework must be at the graded 500- and 700-level.

² At least two courses should be from another discipline. One of these courses may be cross-listed with MA.

Required Coursework by Category

Code	Title	Hours
Select one course from each of the following categories:		9
Continuous Mathematics		
MA 513	Introduction To Complex Variables	3
MA 515	Analysis I	3
MA 531	Dynamic Systems and Multivariable Control I	3
MA 532	Ordinary Differential Equations I	3
MA 534	Introduction To Partial Differential Equations	3
MA 546	Probability and Stochastic Processes I	3
MA 551	Introduction to Topology	3
MA 555	Introduction to Manifold Theory	3
Discrete Mathematics		
MA 505	Linear Programming	3
MA 520	Linear Algebra	3
MA 521	Abstract Algebra I	3
MA 523	Linear Transformations and Matrix Theory	3
MA 524	Combinatorics I	3
MA 526	Algebraic Geometry	3
Computational Mathematics		
MA 522	Computer Algebra	3
MA 540	Uncertainty Quantification for Physical and Biological Models	3
MA 565	Graph Theory	3
MA 573	Mathematical Modeling of Physical and Biological Processes I	3
MA 580	Numerical Analysis I	3

Faculty

Full Professors

Bojko Nentchev Bakalov

Alina Emil Chertock

Moody Ten-Chao Chu

Jo-Ann D. Cohen

Patrick Louis Combettes

Pierre Alain Gremaud

Mansoor Abbas Haider

Hoon Hong

Ilse Ipsen

Kazufumi Ito

Naihuan Jing

Erich L. Kaltofen

Carl Timothy Kelley

Arkady Kheyfets

Irina Aleksandrovna Kogan

Zhilin Li

Xiao-Biao Lin

Alun L. Lloyd

Sharon R. Lubkin

Negash G. Medhin

Kailash Chandra Misra

Mette Olufsen

Tao Pang

Nathan P. Reading

Jesus Rodriguez

Michael Shearer

Jack William Silverstein

Ralph Conover Smith

Ernest Lester Stitzinger

Seth M. Sullivant

Agnes Szanto

Hien Trong Tran

Semyon Victor Tsynkov

Dmitry Valerievich Zenkov

Associate Professors

Lorena Viorica Bociu

Min Jeong Kang

Ricky Ini Liu

Arvind Krishna Saibaba

David Papp

Cynthia Leslie Vinzant

Assistant Professors

Alen Alexanderian

Mohammad Mehdi Farazmand

Kevin Bryant Flores

P. Ivanisvili

C. Jones

Yerkin Kitapbayev

Tye Lidman

P. McGrath

Ryan William Murray

Tien Khai Nguyen

A. Papanicolaou

T. Saksala

Radmila Sazdanovic

Practice/Research/Teaching Professors

Elisabeth M. M. Brown

L. Castle

Alina Nicoleta Duca

Molly A. Fenn

Bevin Laurel Maultsby

S. Paul

Brenda B. Williams

Emeritus Faculty

John William Bishir

Stephen LaVern Campbell

Richard E. Chandler

H. Charlton

Ethelbert N. Chukwu

Lung-ock Chung

Joseph C. Dunn

Gary Doyle Faulkner

John E. Franke

Ronald O. Fulp

Dennis E. Garoutte

Robert E. Hartwig

Aloysius G. Helminck

Robert H. Martin Jr.

Thomas J. Lada

Joe A. Marlin

Carl Meyer Jr.

Larry Keith Norris

Sandra Paur

Lavon Barry Page

E. Peterson

Mohan Sastri Putcha

N. Rose

Stephen Schecter

Jeffrey Scott Scroggs

James Francis Selgrade

C. Siewert

Robert Silber

Michael F. Singer

R. White

Adjunct Faculty

Scott Christopher Batson

Jonathan David Hauenstein

Patricia L. Hersh

John Lavery

Jordan E. Massad

Jessica Loock Matthews

J. Ottesen