

# Mathematics (MS)

## Master of Science Degree Requirements

Code	Title	Hours
<b>Required Courses</b>		<b>9</b>
Select one course from each of the following categories:		
<b>Continuous Mathematics</b>		
MA 513	Introduction To Complex Variables	
MA 515	Analysis I	
MA 531	Dynamic Systems and Multivariable Control I	
MA 532	Ordinary Differential Equations I	
MA 534	Introduction To Partial Differential Equations	
MA 546	Probability and Stochastic Processes I	
MA 551	Introduction to Topology	
MA 555	Introduction to Manifold Theory	
<b>Discrete Mathematics</b>		
MA 505	Linear Programming	
MA 520	Linear Algebra	
MA 521	Abstract Algebra I	
MA 523	Linear Transformations and Matrix Theory	
MA 524	Combinatorics I	
MA 526	Mathematical Analysis II	
<b>Computational Mathematics</b>		
MA 522	Computer Algebra	
MA 540	Uncertainty Quantification for Physical and Biological Models	
MA 565	Graph Theory	
MA 573	Mathematical Modeling of Physical and Biological Processes I	
MA 580	Numerical Analysis I	
<b>In Depth Requirement Courses</b>		<b>12</b>
Select two course sequences, or one group of three thematically linked courses, approved in conjunction with the academic committee		
<b>Additional Courses</b>		<b>9</b>
"Additional Courses" are approved in conjunction with the academic committee to meet 30 total hours		
<b>Total Hours</b>		<b>30</b>

## Accelerated Bachelor's/Master's Degree Requirements

The Accelerated Bachelors/Master's (ABM) degree program allows exceptional undergraduate students at NC State an opportunity to complete the requirements for both the Bachelor's and Master's degrees at an accelerated pace. These undergraduate students may double count up to 12 credits and obtain a non-thesis Master's degree in the same field within 12 months of completing the Bachelor's degree, or obtain a thesis-based Master's degree in the same field within 18 months of completing the Bachelor's degree.

This degree program also provides an opportunity for the Directors of Graduate Programs (DGPs) at NC State to recruit rising juniors in their major to their graduate programs. However, permission to pursue an ABM degree program does not guarantee admission to the Graduate

School. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

## Faculty

### Full Professors

Bojko Nentchev Bakalov

Lorena Bociu

Alina Emil Chertock

Moody Ten-Chao Chu

Patrick Louis Combettes

Pierre Alain Gremaud

Mansoor Abbas Haider

Hoon Hong

Ilse Ipsen

Kazufumi Ito

Naihuan Jing

Erich L. Kaltofen

Irina Aleksandrovna Kogan

Zhilin Li

Alun L. Lloyd

Sharon R. Lubkin

Negash G. Medhin

Kailash Chandra Misra

Mette Olufsen

Tao Pang

Nathan P. Reading

Jesus Rodriguez

Ralph Conover Smith

Seth M. Sullivant

Hien Trong Tran

Semyon Victor Tsynkov

Dmitry Valerievich Zenkov

### Associate Professors

Alen Alexanderian

Kevin Flores

Min Jeong Kang

Tye Lidman

Tien Khai Nguyen

Andrew Papanicolaou

David Papp

Arvind Krishna Saibaba

Radmila Sazdanovic

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## Assistant Professors

Erik Walter Bates

Zixuan Cang

Chao Chen

Yairon Cid Ruiz

Laura Colmenarejo

Mohammad Mehdi Farazmand

Hangjie Ji

Corey Jones

Zane Kun Li

Andrew Manion

Jacob Paul Matherne

Peter McGrath

Ryan William Murray

Dominykas Norgilas

Andrew Sageman-Furnas

Teemu Saksala

Yeonjong Shin

Fatma Terzioglu

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## Practice/Research/Teaching Professors

Elisabeth M. M. Brown

Luke Castle

Alina Nicoleta Duca

Molly A. Fenn

Mikhail Gilman

Maitreyee Kulkarni

Bevin Laurel Maultsby

Stepan Paul

Faye Simon

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## Emeritus Faculty

John William Bishir

Richard E. Chandler

H. Charlton

Ethelbert N. Chukwu

Lung-ock Chung

Jo-Ann D. Cohen

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.

Carl Timothy Kelley

Thomas J. Lada

Xiao-Biao Lin

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

Michael Shearer

C. Siewert

Robert Silber

Jack Silverstein

Michael F. Singer

Ernest Stitzinger

R. White

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## **Adjunct Faculty**

Scott Christopher Batson

Jonathan David Hauenstein

Patricia L. Hersh

John Lavery

Sarah Katherine Mason

Jordan E. Massad

Jessica Loock Matthews

J. Ottesen