Applied Mathematics

The Department of Mathematics offers programs leading to the degrees of Master of Science and Doctor of Philosophy in Mathematics and in Applied Mathematics. Students may opt for the Concentration in Computational Mathematics, which is attached to the program in applied mathematics. The Concentration in Interdisciplinary Mathematics (MAI) is available to Ph.D. students in either Mathematics or Applied Mathematics. It is not available to Masters Students. Joint research endeavors with industrial and governmental partners are facilitated and encouraged. The Department of Mathematics also offers a Certificate.

Admissions Requirements

Applicants for admission should have an undergraduate or Master's degree in mathematics or applied mathematics. This should include courses in advanced calculus, analysis, modern algebra and linear algebra. Applicants with degrees in other subjects may be admitted but may be required to take certain undergraduate courses in mathematics without receiving graduate credit. GRE general scores are required. The GRE Subject Test in Mathematics is not required but a good score can be a positive factor in admission.

Master of Science Requirements

The M.S. degree requires a minimum of 30 credit hours with courses chosen to satisfy certain requirements to cover material from three different areas in the department, and some level of depth of material.

Ph.D. Requirements

The Ph.D. requires a minimum of 72 credit hours. A student will typically take 50-60 semester hours of course credits for the Ph.D. The written preliminary examination consists of examinations in three areas of mathematics chosen by the student from 12 possibilities. The research dissertation should represent a substantial contribution to an area of mathematics or its applications.

Student Financial Support

Teaching assistantships and some research assistantships are available. Teaching assistants benefit from a structured program of training in university-level teaching.

Degrees

- Applied Mathematics (MS) (http://catalog.ncsu.edu/graduate/sciences/applied-mathematics/applied-mathematics-ms/)
- Applied Mathematics (PhD) (http://catalog.ncsu.edu/graduate/sciences/applied-mathematics/applied-mathematics-phd/)
- Applied Mathematics (PhD): Computational Mathematics Concentration (http://catalog.ncsu.edu/graduate/sciences/applied-mathematics/applied-mathematics-phd-computational-mathematics/)
- Applied Mathematics (PhD): Interdisciplinary Applied Math Concentration (http://catalog.ncsu.edu/graduate/sciences/applied-mathematics/applied-mathematics-phd-interdisciplinary-applied-math-concentration/)
- Applied Mathematics (Minor) (http://catalog.ncsu.edu/graduate/sciences/applied-mathematics/applied-mathematics-minor/)

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 Aleksandrovnna Kogan
Rachel Levy
Zhilin Li
Xiao-Biao Lin
Alun L. Lloyd
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Negash G. Medhin
Kailash Chandra Misra
Mette Olufsen
Tao Pang
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Jesus Rodriguez
Michael Shearer
Jack William Silverstein
Ralph Conover Smith
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Agnes Szanto
Hien Trong Tran
Semyon Victor Tsynkov
Dmitry Valerievich Zenkov

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Jonathan D. Hauenstein
Patricia L. Hersh

John Lavery
Jordan E. Massad
Jessica Loock Matthews
Johnny T. Ottesen

Practice/Research/Teaching Professors
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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
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Jeffrey Scott Scroggs
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