

Biomathematics

Biomathematics is an interdisciplinary graduate program offering courses and research opportunities in basic and applied mathematical biology. Degree programs are flexible to accommodate students with backgrounds in the biological, mathematical or physical sciences. The program also offers Ph.D. and master's-level minors.

Admission Requirements

Applicants should have either a Bachelor's degree in biology with evidence of aptitude and interest in mathematics, or a bachelor's in a mathematical science with evidence of aptitude and interest in biology. Advanced (multivariate) calculus, linear algebra and general biology are prerequisites for all BMA courses, and deficiencies in these should be remedied during the first year of graduate study. The application must include a narrative statement (1-2 pages) of the applicant's goals and reasons for interest in the BMA program.

Master's Degree Requirements

The M.S. and M.BMA. degrees require BMA 771-BMA 772 and one other BMA course; two upper-level biology courses; and three courses from the mathematical sciences or statistical sciences. The M.S. degree requires a thesis, and the M.BMA. requires two additional courses and a written project.

Doctoral Degree Requirements

Course requirements consist of a "core" and a "concentration" in some area of biology or mathematical sciences. Core requirements are: BMA 771-BMA 772, BMA 773 and BMA 774; three upper-level biology courses from at least two areas (e.g., physiology and evolution); and additional courses from the mathematical or statistical sciences. Concentration consists of either a Ph.D. co-major in a biological or mathematical science or a coherent series of five graduate courses approved by the student's committee, which must include a two-semester sequence and at least one 700-level course.

Financial Assistance

TAs (generally in the Departments of Mathematics or Statistics). RAs and internships are available. Awards are based on GRE scores, transcripts, letters of recommendation, and the personal statement. RAs usually are held by continuing students. To receive full consideration for financial aid, the completed application must be received by January 15.

Other Relevant Information

All students are required to participate in the BMA Graduate Seminar. Course requirements can be met by examination or by demonstrating that an equivalent course was completed at another university.

Degrees

- Biomathematics (MR) (<http://catalog.ncsu.edu/graduate/sciences/biomathematics/biomathematics-mr/>)
- Biomathematics (MS) (<http://catalog.ncsu.edu/graduate/sciences/biomathematics/biomathematics-ms/>)
- Biomathematics (PhD) (<http://catalog.ncsu.edu/graduate/sciences/biomathematics/biomathematics-phd/>)

- Biomathematics (Minor) (<http://catalog.ncsu.edu/graduate/sciences/biomathematics/biomathematics-minor/>)

Faculty

Full Professors

Kevin Gross
 Mansoor Abbas Haider
 Carol K. Hall
 Jason M. Haugh
 George R. Hess
 Alun L. Lloyd
 Sharon R. Lubkin
 Spencer V. Muse
 Mette Olufsen
 Brian J. Reich
 Seth M. Sullivant
 Jeffrey L. Thorne
 Hien Trong Tran
 Zhaobang Zeng

Associate Professors

Gavin Clay Conant
 Randall Brian Langerhans
 Cristina Lanzas
 Gustavo Machado
 Charles Eugene Smith
 Rosangela Sozzani

Assistant Professors

Belinda Sena Akpa
 Zixuan Cang
 Jie Cao
 Kevin Bryant Flores
 David Alan Rasmussen

Emeritus Faculty

William Reid Atchley

John William Bishir

Marlene L. Hauck

Gail G. McRae

Kenneth Hugh Pollock

Jim E. Riviere

Henry E. Schaffer

James Francis Selgrade

Ronald Edwin Stinner

Adjunct Faculty

John Edward Banks

Georgiy Bobashev

Brian Ernest Carlson

James W. Gilliam

Nicholas M. Haddad

Thomas D. Husmeier

Dustin Kapraun

Julia S. Kimbell

W. Owen McMillan III

Suzanne Marie Lenhart

Johnny T. Ottesen

Charles Puelz

Eric A. Stone