Biology

Areas of study include: cell biology, physiology, ecology, evolution, behavior, and fisheries, wildlife and conservation biology. Specializations within these areas include developmental biology, neurobiology, genomics, invertebrate biology, animal reproduction, biorhythms, behavioral ecology, community ecology, population ecology, conservation biology, fisheries ecology, wildlife field studies, aquaculture and others.

Application Deadlines

To guarantee consideration for funding, applications should be complete by the following dates: for Fall Semester admission both U.S. and international applicants should have their application materials completed by January 15; for Spring Semester the deadline is October 15 for U.S. applicants and international applicants. Please note that it typically requires four to six weeks from the date of your request until transcripts and letters of recommendation reach us. Applications received after the dates listed above will still be considered until the Graduate School deadlines (June 25 and November 25 for U.S. applicants, March 1 and July 15 for international applicants); however, opportunities for funding may be limited (note that the Biology Graduate Program does not accept M.S. and Ph.D. students without support).

Admission Requirements

It is important that you identify a potential faculty adviser, as this will greatly increase your chance of admission to NCSU’s Biology Graduate Program. Although all applications are made available to faculty advisers for review, a graduate student will not be admitted to the Biology Program for graduate studies unless the prospective student has identified a faculty adviser. Once a faculty adviser has requested review of a prospective student, the application is then evaluated with regard to the applicant’s potential for success in graduate school. The admissions process involves consideration of the ability of our program to accommodate students.

Successful applicants usually have a Bachelor’s degree in Biological Sciences or a related field with at least an overall B average and a minimum number of courses in biology (and related fields) and supporting fields (6 in biology, 4 in chemistry, 2 in physics, and 2 in mathematics). In addition to the applicant’s grades and coursework, we consider relevant experience (e.g., through internships, research experiences, volunteer or paid work, and publications), statement of interest, and letters of recommendation. GRE scores are not required. We expect applicants for the MS degree to have at least a 3.0 GPA, and applicants for the PhD degree to have at least a 3.2 GPA. Research experience is highly recommended.

Master’s Degree Requirements

AEC 502 and PHI 816 (or equivalent) are required. No more than six hours of temporary courses (AEC 624, BIO 624, INB 624, BIO 824) or two hours of departmental seminar can be included in the 30-hour requirement for the M.S. Six hours of research credits (INB 695) resulting in a thesis are required. A minor (usually 9-10 hours) is optional. Other requirements may be imposed by the advisor.

Doctoral Degree Requirements

AEC 502 and PHI 816 (or equivalent) are required. A student’s advisory committee recommends appropriate courses which will provide a strong foundation in the student’s area of interest. A minimum of 10 hours of research (INB 895) leading to a dissertation is required. A minor (usually 9-10 hours) is optional. Other requirements may be imposed by the advisor.

Concentrations

Students in all Biology Degree Programs must select a Concentration. Concentrations include Aquaculture and Aquatic Sciences, Molecular, Cellular and Developmental Biology, Ecology and Evolution, Forensic Sciences, Integrative Biology, Physiology and Behavior, and Zoology. Consult the Biology Graduate Program Handbook for Concentration-specific requirements.

Student Financial Support

Graduate teaching and research assistantships are available to well-qualified M.R., M.S. and Ph.D. students.

Other Relevant Information

Excellent research facilities, equipment and computers are available. Off-campus research is conducted at the Pamlico Aquaculture Field Laboratory, research and extension centers in Eastern and Western North Carolina, the Center for Marine Science and Technology in Morehead City, and at facilities of state and federal agencies and private organizations. Field work can be conducted at nearby natural areas and laboratory work at various state and federal laboratories associated with the department, nationally, and internationally. For additional information see the Biology Graduate Program web pages: https://cals.ncsu.edu/applied-ecology/students/graduate/biology/ and https://bio.sciences.ncsu.edu/graduate/graduate-programs/Biology (https://bio.sciences.ncsu.edu/graduate/graduate-programs/Biology/).

Degrees

- Biology (MR) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/biology/biology-mr/)
- Biology (MS) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/biology/biology-ms/)
- Biology (PhD) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/biology/biology-phd/)

Full Professors

David Derek Aday
Betty L. Black
Russell J. Borski
David Buchwalter
Jeffrey A. Buckel
Ignazio Carbone
Jaime A. Collazo
William Gregory Cope
Harry Valentine Daniels III
Robert R. Dunn
David B. Eggleston
John R. Godwin
Kevin Gross
Craig A. Harms
Jeffrey M. Hinshaw
Rebecca Elizabeth Irwin
Thomas J. Kwak
Thomas M. Losordo
Carolyn Jane Mattingly
Heather B. Patisaul
Luis Alonso Ramirez-Ulate
Ann Helen Ross
Mary Higby Schweitzer
David R. Tarpy

Associate Professors
Scott M. Belcher
Shobhan Gaddameedhi
Adam Hartstone-Rose
Randall Brian Langerhans
John Edward Meitzen
Nanette M. Nascone-Yoder
Marianne Niedzlek-Feaver
Antonio Planchart
Reade Bruce Roberts

Assistant Professors
Jie Cao
Kurt Marsden
Jamian Krishna Pacifici
Seema Nayan Sheth
Caitlin Suzanne Smukowski Heil
Bradley William Taylor
Christopher Scott Walker
Elsa Youngsteadt

Practice/Research/Teaching Professors
Jennifer L. Campbell
Louis Broaddus Daniel III
Miles Dean Engell
Miriam G. Ferzli
Jesse Robert Fischer
Terry Allen Gates
William Miller Johnstone III
Jane L. Lubischer
Erin Alison McKenney
Lisa M. Paciulli
Lisa D. Parks
Martha Burford Reiskind
Damian Shea
Adrian Alan Smith
Lindsay E. Zanno

Emeritus Faculty
Peter T. Bromley
Billy J. Copeland
Frederick T. Corbin
Phillip D. Doerr
William C. Grant
Robert M. Grossfeld
Thurman L. Grove
Harold F. Heatwole
Joseph E. Hightower
Richard A. Lancia
Richard L. Noble
Kenneth H. Pollock
James Alan Rice Jr.
John F. Roberts
Damian Shea
Theodore R. Simons
Herbert A. Underwood
John G. Vandenbergh
Thomas G. Wolcott

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**Adjunct Professors**

Robert R. Anholt
Tyler Ray Black
Arthur E. Bogan
John G. Boreman Jr.
David T. Cobb
Louis Broaddus Daniel III
Mitchell J. Eaton
John Jeffrey Govoni
Nicholas M. Haddad
Andrew Bittinger Heckert
Ryan J. Heise
Corinne J. Kendall
Reid W. Laney
Trudy F. MacKay
Alexa J. McKerrow
Gerard McMahon
James Adiel Morris Jr.
Rowland M. Shelley
Kyle W. Shertzer
Adrian Alan Smith
Seth Patrick Stapleton
Bryan Lynn Stuart
Adam J. Terando