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, behavior, behavioral ecology, community ecology, population ecology, conservation biology, fisheries biology, 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  
Marianne Niedzlek-Feaver  
Antonio Planchart  
Reade Bruce Roberts  

**Assistant Professors**

Jie Cao  
Khara Deanne Grieger  
Nathan James Hostetter  
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
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.
Megan Elizabeth Serr
Rowland M. Shelley
Kyle W. Shertzer
Adrian Alan Smith
Seth Patrick Stapleton
Bryan Lynn Stuart
Adam J. Terando