



UNIVERSITY OF GEORGIA

Summer 2019 Research Experience for Undergraduates

Fungal Genomics, Computational Biology and Systems Biology

This is a ten-week NSF REU program with a \$5,000 summer stipend. Our students go on to distinguished graduate programs including Harvard, University of Pennsylvania, Johns Hopkins, Albert Einstein, Boston University, Washington University, Morehouse School of Medicine, Emory University, and St. Jude's Children's Hospital. Our students successfully chart both academic and nonacademic paths at institutions and companies including Johns Hopkins, Goddard Space Center, Pfizer, Emory, Meril, NASA Langley, NIH, CDC, and Complete Genomics (Inc.). Begin building your personal network of future colleagues in the life sciences.

Contact: Jonathan Arnold (arnold@uga.edu)

Apply: <http://www.genetics.uga.edu/FGCB>

Crop Genetics and Genomics

The goal of this nine-week U.S. Dept. of Agriculture REEU (the extra 'E' is for extension) is to develop plant scientists that can address the challenges facing U.S. agricultural competitiveness and food production. Fellows are mentored by UGA faculty providing laboratory and field-based research experiences in crop genetics and genomics. Fellows will take part in a two-day, hands-on 'Plant Breeding Practicum' field course and a service-learning project to develop an understanding of the connection between research, extension and crop production. Professional development opportunities covering career options, research ethics, networking, and science and public communication are also part of the program. Students are supported with a \$4,500 stipend and housing on UGA campus.

Contact: Marin Brewer (mtbrewer@uga.edu)

Apply: <https://plantcenter.uga.edu/study/undergraduate-research/>

Molecular and Synthetic Microbiology

REU participants will conduct independent projects with supervision. A wide variety of research topics will address the diverse functions of bacteria, archaea, fungi, and other microbes. State-of-the-art techniques will be used in interdisciplinary approaches that combine knowledge from the fields of Genetics, Biochemistry, Physiology, Molecular Biology, Cellular Biology, and Ecology. Participants will each receive a \$5175 stipend in addition to a \$500 food allowance for the summer.

Housing and most travel costs will also be covered. Students will stay in air-conditioned dorms on campus.

The application deadline is February 1, 2019.

Contact: Kimberly Brown (reumibo@uga.edu)

Apply: <http://mib.uga.edu/reu-site-molecular-and-synthetic-microbiology>

Summer Undergraduate Research Experience in Neuroscience (NSURE)

This eight-week training program is designed to provide students with an immersive research experience in neuroscience—from project design, data collection and analyses, to presentation and dissemination. NSURE engages students in innovative research approaches across multiple disciplines and model systems that extend from yeast to primates. Our program provides rigorous theoretical and methodological training in neuroscience utilizing the latest in biomedical technologies. In addition to this research focus, students receive science communication and professional development training. Participants are awarded a \$5000 stipend, campus housing, and travel support to attend our program. Special attention is given to the recruitment of students from Historically Black Colleges and Universities, students from groups underrepresented in STEM disciplines, and students from primarily undergraduate institutions.

Contact: Dr. Jim Lauderdale (nsure@uga.edu)

Apply: <https://nsure.uga.edu>

Undergraduate Biology Education Research

The Undergraduate Biology Education Research (UBER) REU Site is a nine-week, NSF-funded program to involve undergraduates in designing and conducting research on undergraduate biology teaching and learning with mentorship from faculty from the UGA life science departments and College of Education. The goals of the program are to develop undergraduates' knowledge and skills in biology education research, encourage undergraduates to pursue doctoral study of biology teaching and learning, expand the diversity of the talent pool in biology education research, and contribute to the development of theory and knowledge about biology education in ways that can inform biology instruction.

Contact: Dr. Julie Stanton (stantonj@uga.edu)

Apply: uber.coe.uga.edu

Coastal Summer Semester

The Coastal Summer Semester is an immersive learning experience in marine ecology. The program will take place June 3 – 28 at the University of Georgia Marine Institute (UGAMI), on Sapelo Island. Students and faculty live on-site at the Marine Institute. UGAMI is a world-renowned center for marine ecological research attracting a vibrant community of scientists and students from around the globe. The program consists of two 4-credit courses: MARS 4500 – Field Study in Oceanography and Marine Methods and Independent Research (either MARS 4510 or BIOL 4960). Students will be introduced to the marine organisms and ecosystems of the Georgia Coast, and will be trained in the field and laboratory methods used to investigate them. Using this information, they will design and carry out a research project under the mentorship of faculty.

Contact: Dr. Damon Gannon (dgannon@uga.edu)

Apply: <http://studyaway.uga.edu/?go=CoastalSummerSemester>

Population Biology of Infectious Disease

Our nine-week research experience provides students with the opportunity to participate in research at the intersection of the quantitative sciences and empirical disciplines of infectious disease biology, with the goal of exposing students with a biological background to quantitative methods and promoting an understanding of experimental biology among students with a background in mathematics and computer science. Our program is truly interdisciplinary, as faculty mentors come from a variety of fields including ecology, genetics, entomology, veterinary science, public health, epidemiology, and mathematics. We encourage applications from students majoring in ecology and biological sciences fields, as well as those majoring in fields such as mathematics, computer science and statistics.

Contact: Dr. John Drake (jdrake@uga.edu)

Apply: reu.ecology.uga.edu



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Summer 2019 Research Experience for Undergraduates

Department of Chemistry Summer Undergraduate Research Opportunity (SURO)

The Department of Chemistry at UGA hosts the Summer Undergraduate Research Opportunity (SURO) program. This is a 9-week program with a \$5000 summer stipend. SURO draws outstanding undergraduates from US and international universities to join active research groups in Chemistry. The projects are directed by faculty mentors, and the students are introduced to new and innovative areas of research in a variety of Chemistry sub-disciplines. This program seeks to provide students without prior research experience with the skills necessary to succeed as independent researchers. Information on faculty mentors, projects, and past summers can be found at:

<https://www.chem.uga.edu/summer-undergraduate-research-opportunities>

Contact: Dr. Amanda Frossard (afrossard@uga.edu) Dr. Brandon Rotavera (rotavera@uga.edu)

Apply: <https://www.chem.uga.edu/suro-program-applying>

Nanotechnology & Biomedicine

The Nanotechnology and Biomedicine REU program will provide an interdisciplinary research experience at the interface of micro-/nano-technology and biomedicine to undergraduate students from other institutions, leveraging the diverse interdisciplinary expertise, resources, and training opportunities in this area at UGA. Students will participate in interdisciplinary research projects that apply micro-/nano-technology to specific biomedical questions. Each REU student will be co-mentored by paired faculty from the nanotechnology and biomedical disciplines on a collaborative research project. In addition to a total-immersion, hands-on research experience, students will participate in enriching activities that will include ethics-in-science workshop; weekly career development seminars; research seminars; educational field trips; participation in conferences in nanotechnology and biomedicine.

Contact: Leidong Mao (mao@uga.edu)

Apply: <http://reu.engr.uga.edu/>

Georgia Coastal Ecosystems Marine Sciences

The Georgia Coastal Ecosystems (GCE) LTER is an NSF-supported research project focused on the central Georgia coast. The marshes and estuaries in this area are affected by changes in both fresh water (from land and precipitation) and salt water (from the ocean.) Over the coming decades we anticipate that changes in climate and human activities will affect these ecosystems through changes in river inflow, sea level rise, and changes in land use. Field work for the GCE project is based at the University of Georgia Marine Institute on Sapelo Island, which has housing and laboratory space. Opportunities are available for students to work with researchers either in their laboratories at UGA, or over the summer at Sapelo Island.

Contact: Adam Sapp (asapp@uga.edu)

Apply: http://gce-lter.marsci.uga.edu/public/employment/summer_internships.asp