



STEM Programs, Scholarships, and Internships
Presented by

Dr. Marilyn Hutchinson

Director, Mentoring and Research Programs



Savannah State University

Savannah State University (SSU), a Historically Black College/University (HBCU), was Established in 1890.

- SSU serves a primarily African-American student population, with a diversity of traditional and nontraditional students from other countries, cultures, and races.
- Offers <u>28</u> Bachelor's Degree Programs and <u>5</u> Master's Degree Programs.
- > Student Enrollment (2012-2013): 4582
- > Faculty: 163

Academic Programs at SSU are Presently Offered Through the:

- College of Business Administration (COBA),
- College of Sciences and Technology (COST),
- College of Liberal Arts and Social Sciences (CLASS), and
- School of Teacher Education (SOTE).

SSU is accredited by the Southern Association of Colleges and Schools Website: www.savannahstate.edu





College of Sciences and Technology

STEM Concentrations and Major Programs of Study:

☐B.S. Degrees:

- *****Biology
- ***** Forensic Science
- Marine Science
- Environmental Science
- Mathematics
- Chemistry
- Engineering TechnologyCivil ElectronicsComputer Science

☐M.S. Degree:

- Marine Science
 - **Enrollment**
 - **√**(2002): 637
 - √(2012): 1374



MAGEC-STEM Plus



Minority Access to Graduate Education and Careers

in Science, Technology, Engineering & Mathematics Plus

Funding Provided by: National Science Foundation (NSF)

> Award Period: 2009 - 2014

> Award Amount: \$2.0 Million Dollars

Scholarship Award: \$1,500 Per Semester

No. of Scholarships: 30

Eligibility: 3.25 GPA or Higher in a STEM Discipline and/or

Social and Behavioral Science

The goal of this program is to develop and implement a comprehensive model to strengthen SSU's undergraduate STEM education and research infrastructure and increase STEM undergraduate enrollment, retention and graduation rates. From 2003-2009, 103 students were supported, 85 were engaged in mentored summer research, and 66 presented at a conference. The graduation rate for Historically Black Colleges & Universities — Undergraduate Program (HBCU-UP) scholars has been 80% compared to the average SSU rate of 29%. SSU's renewed HBCU-UP award has added innovative elements, including international research and interdisciplinary research (forensic science, computational biology, and environmental engineering). In Summer 2012, students will conduct international research in China, India and Malaysia.







Peach State Louis Stokes Alliance for Minority Participation

Award Period: 2011 - 2016

Award Amount: \$500,000

Scholarship Award: \$1,500 Per Semester; Summer: \$1,500 + Free Housing

No. of Scholarships: 30

Eligibility: 3.0 GPA or Higher in a STEM Discipline

The Peach State Louis Stokes Alliance for Minority Participation (PSLSAMP) is an alliance of 7 Georgia institutions, Savannah State University, Fort Valley State University, Georgia Perimeter College, Southern Polytechnic State University, Kennesaw State University, GA Tech, and the University of Georgia (the lead institution). Over the past 5-years: 104 SSU students have been supported, 97 have been engaged in mentored summer research, and 60 have presented at national conferences.

The program goals are:

- To build the academic and research capacity of these institutions, which have significant enrollments of minority populations underrepresented in STEM professions and,
- To Increase the number of minorities contributing to and advancing the frontiers of research and education in STEM fields.



NSF – PRISM



Proactive Recruitment for Introductory Science and Mathematics

Award Period: 2009 - 2014

> Award Amount: \$1.5 million

Scholarship Award: \$3,500 Per Year

No. of Scholarships: 40

Eligibility: 2.75 GPA in STEM at the Freshman and Sophomore Levels

The goal of the Proactive Recruitment for Introductory Science and Mathematics (PRISM) Program is to stimulate freshman and sophomore interest in STEM majors through mentoring, seminars, curriculum enhancements, and demonstration of real-world applications through discovery learning. PRISM is an interdisciplinary program that includes the mathematics, environmental science, and engineering technology programs. The program partners with the Georgia Institute of Technology – Savannah Campus for summer discovery learning and has established relationships with local industries that serve as host sites for summer field trips. The program supports 30-40 students each year.





NSF - EDGE

Enhancing Diversity in the GEosciences

Award Period: 2009 - 2014

> Award Amount: \$1.03 million

> Scholarship Award: \$4,000 (summer); \$650 Per Semester

No. of Scholarships: 10 Undergraduates Per Semester; 6 Undergraduates

> Eligibility: All Undergraduate Majors with a STEM Focus on Marine

Science and/or Geoscience

The goal of this program is to attract minority students to Marine Science/Geoscience education and career tracks. It supports 10 undergraduate students each semester (20 per year), and 4 full time summer internships for a total of 24 per year. The program includes support for freshmen and sophomores who may be struggling to find direction in the shorter, low-commitment academic year positions. The full time summer positions are more competitive and targeted to the best and most dedicated students. There are opportunities to participate in research cruises monitoring the Savannah River estuary. In addition, undergraduates can be placed in internships with community partners at local schools, aquaria, and outdoor education facilities.





NSF GK-12 Ocean Literacy Program

Award Period: 2009 - 2014

> Award Amount: \$2.2 million

Scholarship Award: \$30,000 (GS); \$900 Per Semester (UG)

No. of Scholarships: 8 Graduates; 1 Undergraduate Student Per Year

Graduate Eligibility: Completion of Thesis Proposal

This program is a collaboration between SSU, the Skidaway Institute of Oceanography (SkIO), and the Savannah Chatham County Public School System. The goal is to develop graduate students' research and communication skills while supporting local science education and enhancing ocean literacy in this coastal community. Master's students serve in local science classrooms weekly. They learn from their teacher mentors and develop teaching modules based on their research. In turn, the science teachers are engaged in summer research with SSU and SkIO researchers, participate in summer workshops, and participate in research cruises. One undergraduate intern is supported annually to enhance marine-related outreach to the Savannah community.





N/H - MARC U-STAR

Minority Access to Research Careers Undergraduate - Student Training in Academic Research

Award Period: 2012 - 2017

Award Amount: \$1.0 million

> Scholarship Award: \$11,172 Stipend and 60% of Tuition and Fees

No. of Scholarships: 5

➤ Eligibility: 3.25 GPA or Higher in a STEM Discipline and/or

Social and Behavioral Science

The NIH/NIGMS MARC U-STAR Honors Program at Savannah State University provides minority students, who are traditionally underrepresented in biomedical and behavioral sciences, a rigorous research training preparedness program during the junior and senior years. The program will prepare them to be admitted and successfully complete Ph. D. programs at top-tier institutions. MARC Scholars must be majoring in Biology, Behavior Analysis, Chemistry, Marine Science or Mathematics with a minimum 3.25 GPA.



Minority Biomedical Research Support-Research Initiative for Scientific Enhancement

Award Period: 2012 - 2017

> Award Amount: \$1.13 Million

> Scholarship Award: \$9 Per Hour for Regular Semesters and Summer

➤ No. of Scholarships: 10 Per Year (Renewable Based on Performance)

➤ Eligibility: 3.0 GPA or Higher in a STEM Discipline and/or

Social and Behavioral Science

The goal of this program is to increase the number of graduates in RISE relevant undergraduate programs and to increase the number of underrepresented minorities in the biomedical/behavioral sciences pursuing and completing Ph.D. programs. The program will facilitate curriculum enhancements to benefit all STEM students. Each scholar will be placed with a mentor and actively engage in research on and off campus. RISE scholars must be majoring in Biology, Chemistry, Marine Science or Behavior Analysis.





N/H-NIBIB

National Institutes of Biomedical Imaging and Biotechnology

Award Period: 2012 - 2016

Award Amount: \$610,560

> Scholarship Award: \$4,500 Per Year for 4 Years

No. of Scholarships: 15

Eligibility: 3.0 or Higher GPA, Incoming Freshman, STEM Major,

Interested in Research, Continuing on to Graduate

School and a Research Career

The goal of the NIBIB "Expanding Diversity" Research Training Program is to increase the number of minority students who earn a degree in science, technology, engineering, or mathematics (STEM) and enter into a STEM graduate program and research career.







Research Infrastructure in Minority Institutions

Award Period: 2009 - 2014

> Award Amount: \$4.0 Million

> Scholarship Award: \$1,500 Per Semester

➤ No. of Internships: 14 (Flexible)

➤ Eligibility: 2.5 GPA or Higher

The Research Infrastructure in Minority Institutions (RIMI) program strengthens the research infrastructure of SSU and contributes to the knowledge base in Biomedical/Behavioral Science/Health Disparities fields by developing junior faculty to become independent investigators under the mentorship of external collaborators, strengthening shared core research labs, and strengthening STEM curriculum by infusing health disparities topics. Each semester, the RIMI program engages 14 students in mentored research training with SSU faculty and community research partners such as the Chatham County Health Department Chief Epidemiologist. A key element of RIMI is expanded research networks with external collaborators/mentors. The MARC program will build on these research collaborations.







National Oceanic and Atmospheric Administration Living Marine Resources Cooperative Science Center

Award Period: 2011 - 2016

Award Amount: \$1.1 Million

> Scholarship Award: \$20,000 Per Year Plus Tuition and Supplies

No. of Scholarships:
Up to 2

➤ Eligibility: 3.0 GPA

The Living Marine Resource Cooperative Science Center is a collaborative effort between NOAA and the University of Maryland Eastern Shore (UMES) (its lead institution), in collaboration with the Institute of Marine and Environmental Technology, the University of Miami, Delaware State University, Hampton University, Oregon State University, and Savannah State University. This new 5-year award builds on the accomplishments of two prior five-year LMRCSC awards since 2001 that have totaled over \$3 million dollars. Its mission is to "train a diverse body of students for careers in NOAA and other resource management agencies and conduct cutting edge research in fisheries sciences in the areas of fisheries socioeconomic, quantitative fisheries, essential fish habitat and aquaculture." Among the programs it sponsors, the community is probably most familiar with the research internships and fellowships, and the annual marine science camp that is offered free of charge. The LMRCSC also provides resources to the Georgia-South Carolina Ocean Sciences Bowl, GIS Day in Savannah, the Savannah Black Heritage Festival, and the Savannah Ocean Exchange.





Department of Education Title VII Program

• **Award Period:** 2009 - 2015

Award Amount: \$3.0 Million

Scholarship Award: \$9,000 Per Semester

No. of Scholarships: 3

• Eligibility: Program Targets African American and/or

Low Income Students

With the enactment of the Higher Education Opportunity Act (HEOA) of 2008, Savannah State University was one of 18 historically black colleges and universities (HBCUs) that received funding to improve graduate education opportunities at the master's level in mathematics, engineering, physical or natural sciences, computer science, information technology, nursing, allied health or other scientific disciplines where African American students are underrepresented.

THANK YOU FOR PARTICIPATING MAGEC-STEM Plus ADMINISTRATION AND STAFF

Dr. Chellu Chetty, Grant PI - Associate Vice President for Research and Sponsored Programs: chettyc@savannahstate.edu Ph. 912-358-4277.

Dr. Jonathan Lambright, Grant Co-PI Interim Dean College of Science and Technology. lambrigj@savannahstate.edu Ph. 912-358-3267

Dr. Johnny Johnson, Grant Co-PI Assistant Professor Biology johnsonj@savannahstate.edu Ph. 912-358-4443

Dr. Marilyn Hutchinson, Director Research and Mentoring Programs: hutchinsonm@savannahstate.edu. Ph. 912-358-4295

Kenneth B. Williams, Jr., MPH
NSF-MAGEC-STEM Plus
Program Manager
williamsk@savannahstate.edu.
Ph. 912-358-4283