STUDENT SUPPORT STEM CENTER

A STEM Center will be used to provide academic support to students in the MAGEC-STEM Plus program.

It consists of a model classroom to conduct workshops and seminars for faculty and students.

The STEM center will be used to
• provide personalized tutorials in lab,
• establish mentor/protégé relationship,
• strengthen advisor/advisee relationship,
• provide career counseling/exploration &
• employ high ability students to man tutorial labs or serve as peer tutors under faculty supervision.

PARTNERSHIPS

The MAGEC-STEM Plus Project will take advantage of the partnership arrangements with:

Georgia Institute of Technology
Mercer University
Medical College of Georgia
Area businesses
Area school systems
Gulf Stream Aerospace Corporation
South Eastern Consortium for Minorities in Engineering (SECME), Inc.

PROGRAM COORDINATORS

Dr. Chellu S. Chetty, Principal Investigator
Associate Vice President for Research & Sponsored Programs

Dr. Jonathan Lambright, Co-Principal Investigator
Chair, Department of Engineering Technology & Mathematics

Dr. Johnny Johnson, Co-Principal Investigator
Assistant Professor of Biology

Mr. Patrick Dean
Recruiter

Savannah State University

MINORITY ACCESS TO GRADUATE EDUCATION & CAREERS IN SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS PLUS

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SUMMER PROGRAM ACTIVITIES

The MAGEC-STEM Plus Program will host a 4-week residential enrichment STEM Education Camp for 30 pre-freshmen in summer 2010. Students who participate in the camp will receive $1,500 for the summer, $1,500 for each academic year they are in the program, and a laptop computer for their use while attending SSU.

The summer enrichment education camp will focus on:
- Scientific and Critical Thinking
- Lectures and Labs in Biology, Chemistry, Physics and Engineering related issues
- Mathematical Methods in STEM where students learn the fundamental concepts in mathematics and learn to use the computer and software in solving mathematical problems

STUDENT SUPPORT

- Pre-Freshman Program:
  - Summer Enrichment Camp
  - (4 weeks - $1,500/Student)
- Academic year Scholarship:
  - $1500/Student (each academic year)
- Undergraduate Bridge Program:
  - Academic year and summer
  - Research participation at SSU
- Off-Campus summer research internship
  - ($1,500 - $3,000 plus lodging and travel for junior/senior)
- Travel assistance to attend national conferences
- Lap-top computers

ACADEMIC YEAR PROGRAM ACTIVITIES

- Enrichment Courses
- Seminar Series
- Peer Mentoring
- Attendance to Regional/National Scientific Conferences

STUDENT SELECTION CRITERIA

- High school senior who has demonstrated academic potential with a minimum of 3.0 GPA
- SAT score 1300 or above - ACT 19 or above
- Student shows interest to pursue a career in STEM disciplines at SSU

STUDENT RESPONSIBILITIES

- Student attends summer enrichment program as a pre-freshman
- Student should continue undergraduate education in one of the STEM discipline at SSU:
  - Biology, Chemistry, Mathematics, Marine Science, Environmental Science
  - Civil Engineering Technology
  - Computer Science Technology
  - Electronics Engineering Technology
  - Civil Engineering
  - Computer Engineering
  - Electrical Engineering
  - Mechanical Engineering
- Student has to commit required time to the program activities and maintain a minimum of 3.0 GPA
- Student participates in at least two on/off campus internships
- Student commits one hour per week to meet with assigned peer mentor
- Student commits 10 hours per week to work with an assigned faculty mentor

BACKGROUND INFORMATION

Savannah State University (SSU) received $2 million from the National Science Foundation (NSF) to sustain and further develop the Minority Access to Graduate Education and Careers in Science, Technology, Engineering and Mathematics (MAGEC-STEM Plus) program. The purpose of the initiative is to address the critical need to substantially increase the number of minority students matriculating into graduate school for advanced studies leading to MS and Ph.D. degrees in Science, Technology, Engineering and Mathematics (STEM) disciplines. The MAGEC-STEM Plus program is focused on increasing the number of minority students that successfully complete their undergraduate course of study and move on to an advanced degree program.

MAGEC-STEM Plus PRIMARY GOALS

To expand on the positive gains created by the initial MAGEC-STEM program by increasing outreach, research, teaching, and mentoring activities of STEM students. MAGEC-STEM Plus will serve to improve recruitment, retention, and the academic and professional preparation of STEM students.

RECRUITMENT

A MAGEC-STEM Plus pre-college activity will focus on recruitment:
- A 4-week pre-freshman summer program for MAGEC-STEM Plus students geared at building skills in STEM fields
- A Teachers Enrichment Workshop for high school teachers in the service area will be conducted annually
- Regular visits to Coastal Georgia high schools by the program assistant, faculty members and undergraduate students

RETENTION

Retention efforts in MAGEC-STEM Plus include an orientation for incoming STEM majors, an early warning system and mid-stream intervention, workshops on study skills, time management and textbook mastery, individual counseling sessions, peer tutoring and counseling, and tracking and early intervention.