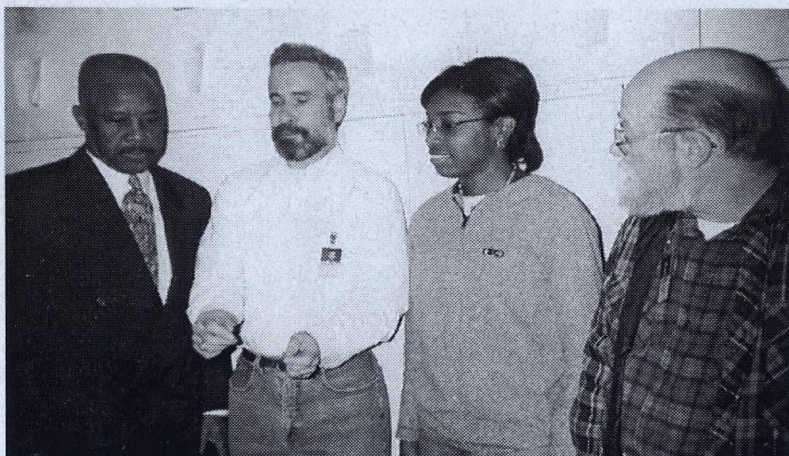


SCAMP SCHOLAR AT NATIONAL MUSEUM



Dr. A. James Hicks, Dr. Mike Pogue, Natasha Cobb, and Dr. Buck Lewis look at moth collections from South Carolina.

Natasha Cobb a freshman at the College of Charleston participated in a Winter Research Training Program at the Smithsonian's Museum of Natural History. The program designed by Ms. Mary Sangrey, Director of the Research Training Program addresses freshmen, and sophomores. The program's long range goal is that some of the students will become guardians of our natural history and practitioners of disciplines which investigate the past and preserve it for future generations.

Natasha worked in the Entomology division with her mentor Dr. Mike Pogue, and

Department of Agriculture scientist Dr. Buck Lewis. Natasha's work involved classification and cataloguing of the museum's moth collection which spans the past two centuries and represents moths from the seven continents.

The workshop curriculum included lectures, discussions and behind the scenes tours of many Smithsonian facilities. Hands-on demonstrations and special experiences designed to compliment the research projects are included as well as multiple opportunities to interact with staff and visiting scientists.

Dr. A. James Hicks, (NSF) National AMP Director visited the students on January 14, 1999. Dr. Hicks talked to the students about building careers in the sciences, and how rewarding those careers could be. The students talked with Dr. Hicks about graduate school (which he encouraged each to pursue) and the importance of undergraduate research to their present studies, and future. Dr. Hicks, a plant biologist, joined Ms. Sangrey in asking the students about their reaction to the research training program, and how they might better plan for students in the future. The students felt that programs designed to attract students to the sciences need to reach students in elementary school to get them focused on careers in SMET fields.

Dr. Hicks and Ms. Sangrey encouraged the students to take advantage of their time at the Smithsonian to develop research skills, and build relationships with science professionals.

SCAMP SCHOLARS SPEAK OUT ABOUT RESEARCH



SCAMP Scholars in the classroom

MIDLANDS TECHNICAL COLLEGE

THEO JENKINS: Myra Suarez and I worked with Mr. Jay Abramson as student research interns. Our job involved developing web pages for a trigonometry course-MAT 111. My research experience helped me understand the process of teaching, learning and web-publishing. I became more familiar with several software programs. I also updated my skills in trigonometry, and calculus.

An added bonus of my research experience was being exposed to different career choices. Careers I did not know about, and places I will be able to use my skills when I complete my degree. I can now investigate (and) perhaps learn about more options. The research experience was really good for me "all-around."

SCAMP Program Coordinator Benedict College

CONCETTA CRAWFORD: Students participating in the AMP program benefit from all AMP components; mentoring, academic reinforcement, peer-counseling, workshops, seminars, Summer Bridge and Summer Research. These programs foster students' abilities, and resolve to reach goals.

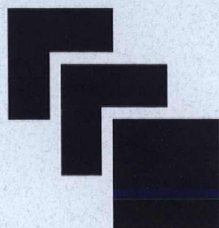
Students involved in Summer Research get an opportunity to explore the actual work in their disciplines, to see the opportunities that exist in their fields in, and out of the laboratory environment because the work in research is so often related to solving problems that exist in the work place. Students also get the opportunity to interact with professors, and students in other academic environments. Exposing students to research the summer after their freshman year helps prepare them for private sector research experiences later in their academic career.

Students involved in research grow in their studies, their relationships with professors and in their approach to problem solving and resource development. Undergraduate research is definitely one of the stronger components of the SCAMP Program.

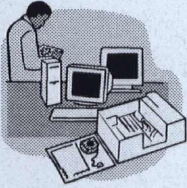
BENEDICT COLLEGE

LATONYA GARVIN: I am an Undergraduate NASA Research Scholar at Benedict College. My research involves differential gene expression in adult rat skeletal muscles exposed to and recovering from simulated space flight (microgravity). This research is being conducted under the direct supervision of Dr. Larry L. Lowe. This research is related to NIH's interest in musculoskeletal protein structure and connective tissue diseases and NASA's interest in exploration missions and investigations of musculoskeletal changes that occur during prolonged space flights.

As an undergraduate student having the opportunity to conduct research of this caliber is rewarding both academically and socially. I have mastered complex skills in Molecular Biology, met scientists who have excelled in their fields, and looked at career options available to science majors. It has been exciting. I encourage all students to take advantage of undergraduate research opportunities.



SCAMP SCHOLARS SPEAK OUT ABOUT RESEARCH



COLLEGE OF CHARLESTON

ENDIA JOHNSON: Dr. Fred Holland and Dr. Denise Sanger are passionate about their work. Students working in their lab at the South Carolina Department of Natural resources get caught in the constant excitement and adventure. I gained a vast amount of experience in laboratory research. At the student symposium at the ALSO Conference in Sante Fe, New Mexico, I will make the third presentation of my research.

This has been a rewarding experience, and one that has reinforced my determination to become a scientist.

CLAFLIN COLLEGE

JASON RICHARDS: My undergraduate research experience provided invaluable skills to support my future in the science community. I spoke to my summer research advisor (another advantage of research; a close relationship with a practicing professional); Dr. Darren Pearson told me that I should continue to strive toward my goal of becoming a doctor but sometimes you have to take the indirect route to get what you want.

SOUTH CAROLINA STATE UNIVERSITY

DAMON ROGERS: My research in Web based instruction furthered my knowledge of the process of learning and web publishing. I also gained more knowledge about computer science and engineering as I researched stories from professional and academic journals that dealt with research in new technology and applications of technology already available to some computer users. My eyes have been opened again to more ways I can use my degree, and I have new direction for my endeavors as a student. Dr. Ashok Satpathy and Dr. Judith Salley provided guidance and allowed me to grow through discovery —this was truly a great experience.

LATONYA CAPERS: The benefits of research are endless. Not only does it provide you an opportunity to work in your field of study, it gives you a real look inside your profession. My research project dealt with Web-Based Instruction, a new field with explosive growth potential as more universities address life long learning to an increasingly diverse audience. Designing the web-pages provided a new focus in computer science which I want to examine more closely. Addressing real life problems with real life solutions (or at least real life experiments to see what works) is something I really enjoy.

SAMUEL DAVIS: Conducting research during the fall semester was a very “eye-opening” experience for me. Working in a lab helped me prepare for post-graduate studies —and— reinforced my deep interest in science and building a career in research. Dr. Anorou is really great! This experience will allow me to be more competitive with other students because of the technology I was exposed to and because of the little lessons that Dr. Anorou teaches all the time.



Scientist at Work.

THE DEGREES OF OUR SUCCESS
by Dr. John Grego, SCAMP Program Evaluator, USC



Wilma Sims, USC-graduate student and former Clemson SCAMP student will work in Dr. Grego's STAT lab collecting and compiling SCAMP data.

The National Science Foundation (NSF) requires each of the twenty seven AMP's to file two separate annual reports. These reports tell NSF about the bottom line and the number of students earning degrees in SMET fields. They also show our progress in such programs as Summer Bridge, Summer Research, Peer Counseling and Mentoring and Tutoring programs.

Most of you have had very little contact with SCAMP Evaluation but you can see that the evaluators have been looking at your progress. All of these programs that students participate in are examined. We want to learn how effective those programs are at helping students meet their academic challenges and earn their Bachelor's of Science Degree.

In our first year of SCAMP, we had a modest increase in degree production (Table 2); if we are to double the number of minority SEM (Science, Engineering and Math) degrees within 5 years, the rate of increase for succeeding years will have to be even greater.

This past Fall, we initiated one of our more interesting efforts. Each site coordinator administers an exit survey to all graduating Level I students. The students are polled on whether SCAMP programs (Summer Bridge, Summer Research, Calculus Workshops, etc.) affected (1) their decision to stay in a SEM discipline and (2) their decision to attend graduate school in a SEM discipline. These surveys will be supplemented by a small number of personal interviews with graduating seniors.

Wilma Sims will visit the Alliance campuses this spring to talk to students. The winter interviews, conducted by Megan Meece, a USC undergraduate, have provided interesting insights into the SCAMP "atmosphere" at alliance schools and the obstacles students face in earning a SMET degree. In particular, the interviews have confirmed the importance of a strong bond between students and SCAMP staff in establishing an active SCAMP presence on campus.



Getting all the data on the SCAMP Program :John Grego

Table 1
 Minority SMET Enrollment 1992-1997*

	Science	Engineering	Math	Total
1992	1298	966	191	2455
1993	1325	1024	215	2564
1994	1372	1097	195	2664
1995	1711	965	269	2945
1996	1925	909	209	3043
1997	1900	898	205	3003

*Data from Midlands Technical College is not included

Table 2
 Minority SMET Bachelor's Degrees 1992-1998*

	Science	Engineering	Math	Total
1992*	142	91	22	255
1998*	258	109	41	408

* Does not include College of Charleston; not verified w/ IPEDS report ** Not verified w/ IPEDS report.

SHADOWING PROGRAM AT MIDLANDS TECHNICAL COLLEGE

**Jay Abramson, SCAMP Program Coordinator
Midlands Technical College**

The Shadowing Program at Midlands Technical College serves a dual purpose. The faculty member also serves as mentor by forming a bond with the students. Students and faculty co-work on an educational project. Projects integrate technology into the fabric of tasks and encompass topics from the Natural Sciences, Mathematics, Engineering and Computer fields. Examples of on-going projects this semester are: "Integration of Multi-media into the Mathematics Curriculum", "Designing with Full Implementation the Delivery of a Trigonometry Course on the Internet", and "Expanding Statistics onto the Web."



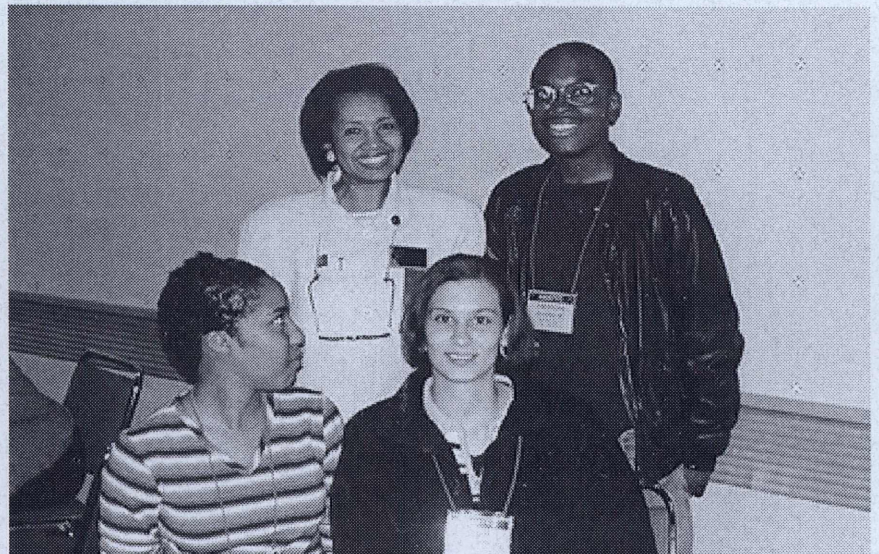
Myra Suarez, SCAMP Scholar, works with Mathematics Instructor, Jay Abramson, on Web-Site Design.

THE AMATYC CONFERENCE

**By Rose Jenkins
Mathematics Instructor Midlands Technical College**

The AMATYC conference was a wonderful experience. I enjoyed all of the workshops, and gained a lot of ideas on techniques and projects to make math more appealing to students. In particular, I enjoyed the collaboration with other instructors on ways of successfully implementing distance learning courses via the internet. Also it was my pleasure to escort four students, who exhibited characteristics of promising professionals.

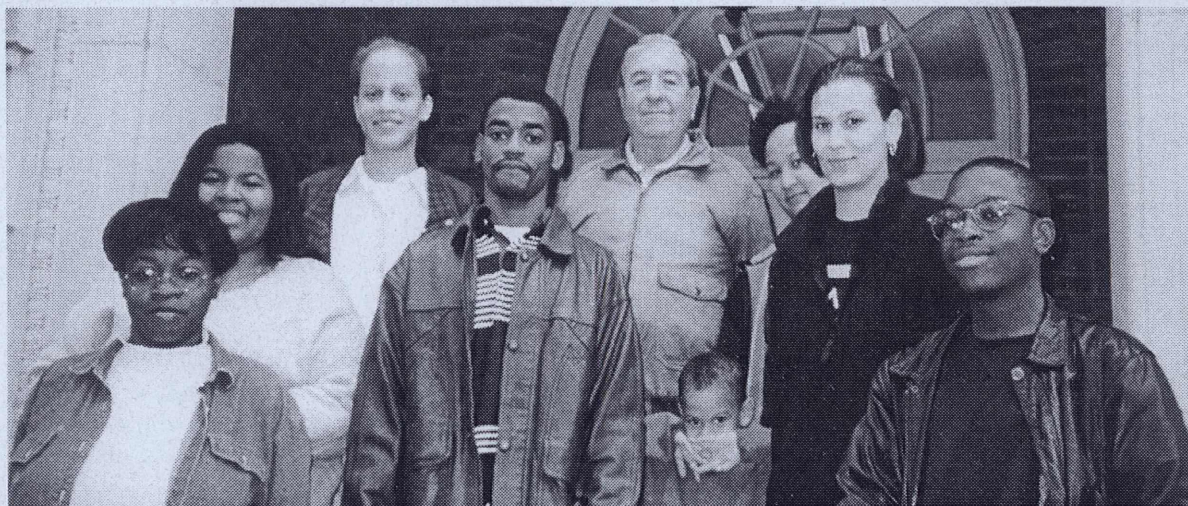
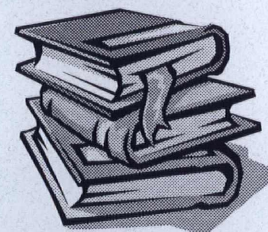
The students listened to presentations, talked with other conference attendees about technology exhibits, and the wealth of resources available at the conference. They brought back useful information for their projects, and were able to explore career opportunities via exhibits and interaction with conference participants. Of course, they took advantage of the opportunity to see the beautiful city of Portland.



Rose Jenkins with students who accompanied her to the National AMATYC Conference; (back row) Mrs. Jenkins, Theo Jenkins, (front row) left to right - Charlene Pinder and Myra Suarez.

CLEMSON PROVIDES GLIMPSE OF CAMPUS LIFE FOR SMET MAJORS FROM MIDLANDS TECHNICAL COLLEGE

By Lashonda Jacobs, USC SCAMP assistant



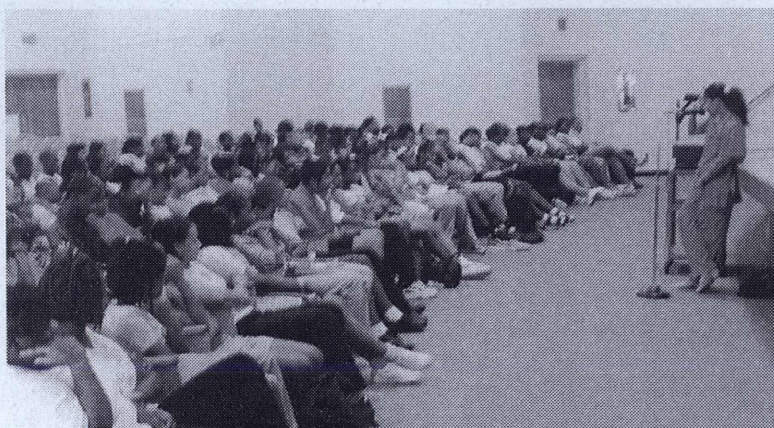
Students from the MTC AMP Program visited Clemson University and had the opportunity to meet SCAMP students and tour the campus. Dr. Bob Snelsire, Campus Director of the Clemson AMP Program provided students with a tour, and an opportunity to learn more about Clemson and SMET fields at an informal conversation with Clemson SCAMP Scholars.

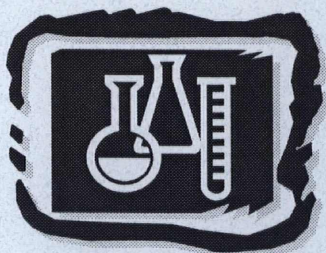
MTC students got the opportunity to learn more about life at Clemson: classes, tuition, transfer credits, “dorm-life” and of course the all important “how are the professors” question. Students were pleased with the campus and the interaction with students and staff on the Clemson campus.

CLAFLIN COLLEGE AND THE PRE-COLLEGE CONNECTION

By Dr. Shingara Sandhu, SCAMP Campus Director

Clafin College has created an effective and strong relationship with students in South Carolina by creating pre-college programs. The SCAMP staff and students at Clafin work closely with the Project Life: “POSITEEN”, WHICH COORDINATES PRE--COLLEGE STUDENT ACTIVITIES ON CAMPUS. The project provides tutorials for students in the consolidated Orangeburg school District. By addressing student’s educational needs, their personal development, focusing on self-esteem and educational challenges, the program manages to direct teens in goal setting, self-discipline, and personal resource development.



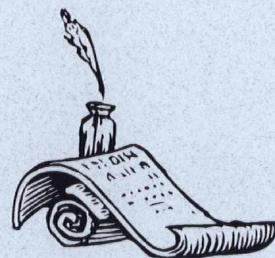


SC EPSCoR PROVIDES SCAMP RESEARCH AWARDS

Dr. Scott Little, SC EPSCoR Program Manager, works with research professors at Clemson and at USC who are interested in mentoring SCAMP students in their labs. USC has seven Spring semester SCAMP/EPSCoR ResearchScholars : Chikynda Adams, Aimee Frye, Andrew Gilmore, Sheryl Montgomery, Mareesa Singleton, Thomas Tisdale and Martin White. Two students completed their internships during the Fall 1998: Wesley Frierson and Terrence Wilson.

Benedict College has one Spring Semester SCAMP EPSCoR Research Scholar:
Andedra Edwards.

SCAMP appreciates the support that Dr. Scott Little and his staff have provided for this project. If you are interested in the EPSCoR/SCAMP Research Program (academic year or summer) please contact Beverly Highland at 777-2464 or highland@enr.sc.edu. Clemson students should contact Dr. Bob Snelsire at 864-656-5910.



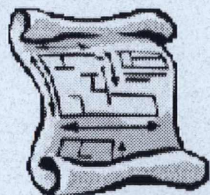
ANNOUNCEMENTS

Students from all over the state of South Carolina participate in SCAMP's Summer Research Program. The 8 week intensive program gives students an opportunity to conduct research in an outstanding research lab, or in an industrial lab. Students are paid a stipend of \$ 2,700.00, and compete for scholarships, and book store scholarships at the annual Science and Engineering Fair. Please see your SCAMP Campus Director for an application, and more details.

Check out our WEBSITE

@

www.cosm.sc.edu/SCAMP



SOUTH CAROLINA STATE UNIVERSITY STUDENTS EXCEL



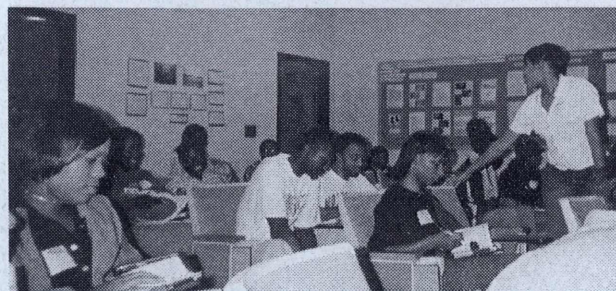
STACY PRESIDENT, a junior Computer Science Major, is a recipient of a graduate fellowship from the National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. Stacy was a participant in the 1996 Summer Bridge Program and continues to participate in SCAMP activities.

WILLETTE CRAWFORD, a freshman biology major is a recipient of the Duke Power Minority Professional Association (DPCMPA) Scholarship. She was a participant in the 1998 Summer Bridge Program.

MENTORING PROGRAM AT C of C WORKS

by Erin K. King, student at C of C

The mentor program is an excellent program with well-rounded mentors. My personal experience with this program has been very pleasant. My mentor has been an important asset in a very different atmosphere, college. It is a comfort to have someone who has already experienced previous problems about classes, grades, and teachers. There has never been an occasion where I could not contact my mentor to ask questions or receive help. Students appreciate the time that mentors provide and the care they take in addressing our problems and helping us find solutions and identify resources. My mentor, Aaron Whitney, and the whole mentoring program are great.



SCAMP scholars at College of Charleston check calendars in monthly meeting.

CONGRATULATIONS! SCAMP Academic Year Research Award Recipients

Priscilla Adjei
College of Charleston

John Colbert Jr.
SC State University

Theo Jenkins
Midlands Technical College

Jeanine Robinson
Claflin College

Kenosha Clark
College of Charleston

Andedra Edwards
Benedict College

Myra Suarez
Midlands Technical College

Delphine Felder
Voorhees College

Contact SCAMP campus coordinators and campus directors for information about undergraduate research opportunities and information about other SCAMP programs.

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803 253 5276
Program Coordinator, Concetta Crawford
803 253 5276

Claflin College
Campus Director, Dr. Shingara Sandhu
803 535 5293

Clemson University
Campus Director, Dr. Bob Snelsire
864 656 1054

College of Charleston
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South Carolina State University
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