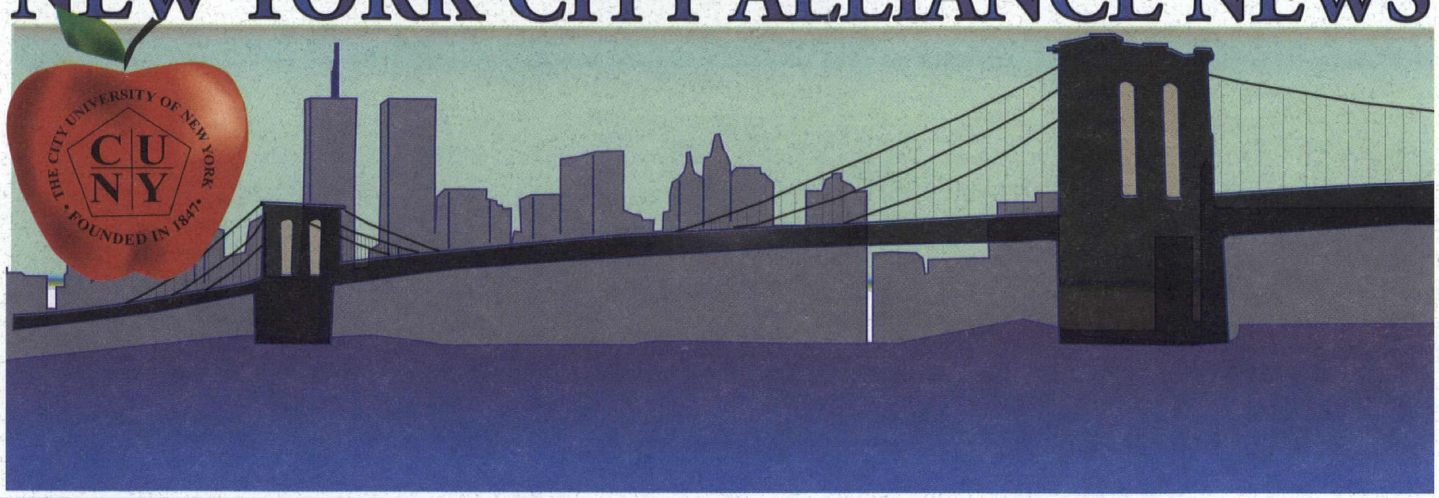
NEW YORK CITY ALLIANCE NEWS



NYC LSAMP Facts

- *232 undergraduate and 26 graduate students are currently participating in LSAMP research programs.*
- *This summer 55 precollege students took part in LSAMP programs on 6 campuses.*
- *All 18 students in this summer's Teacher Preparation Initiative are continuing in the program this fall.*

Inside this issue:

LSAMP at the Phase II Midpoint: Accountability and Institutionalization, Thoughts from the Principal Investigator, Dr. Neville A. Parker

Since 1992, the New York City Alliance has worked to create a model program for SMET education in an urban university. As we enter the home stretch of Phase II, it is important that we take stock.

Our research program is vibrant. We started in 1993 with 35 undergraduates. Currently, we have 232 undergraduate and 26 graduate LSAMP Research Scholars. This summer we engaged 55 entering freshmen in SMET activities conducted in CUNY's labs and classrooms. The Research Articulation and Research Initiation Programs are involving community college faculty in research, some in partnership with instructors at senior colleges. We have restructured gatekeeper courses in Mathematics, Chemistry, and Physics across the University.

Recognizing our responsibility to bring excellence in SMET instruction into the New York City Public Schools, we established our Teacher Preparation Initiative. This summer, it brought together resources from CUNY and other New York City institutions to create a program rich in SMET content and teaching methodology. Our initiative was designed specifically to bring CUNY's SMET majors into precollege education. It anticipated the recent New York State Board of Regents requirement that teachers complete a major in the subject they intend to teach.

In April we recognized over 100 LSAMP faculty mentors from across CUNY. We plan to attract an ever larger number of our instructors to mentoring. To succeed, we need workshops on how to mentor students in an urban university where teachers are often called upon for personal as well as academic support; and we need a forum where accomplished mentors can share concerns and trade ideas.

During the remainder of Phase II, we will continue to develop our initiatives, and we will work to ensure that they are institutionalized when National Science Foundation funding comes to an end. The New York City Alliance has been a catalyst for SMET reform at CUNY. We are determined that those reforms will be lasting. To this end, our Steering Committee will focus on three areas this year:

Industrial Relations: We will build on our success in securing a $50,000 grant from Pfizer Corporation to develop other private sector partnerships. We will seek endowments for our research scholarships and internships in industry to provide research experience outside the academy for our students and professional development opportunities for our SMET faculty.

Research and Restructuring: Having introduced undergraduates into CUNY's SMET faculty laboratories, we will work to define the place of research in SMET education. Should it be optional, as it is now, or should we require that every SMET major at least take a research methods course? I do not believe that it is unrealistic to attempt to make research a universal experience for SMET majors. Is the LSAMP allocation to the laboratories where our students do their research sufficient, especially at the community college level? Is the restructuring which

continued on page 7

New York City Alliance News

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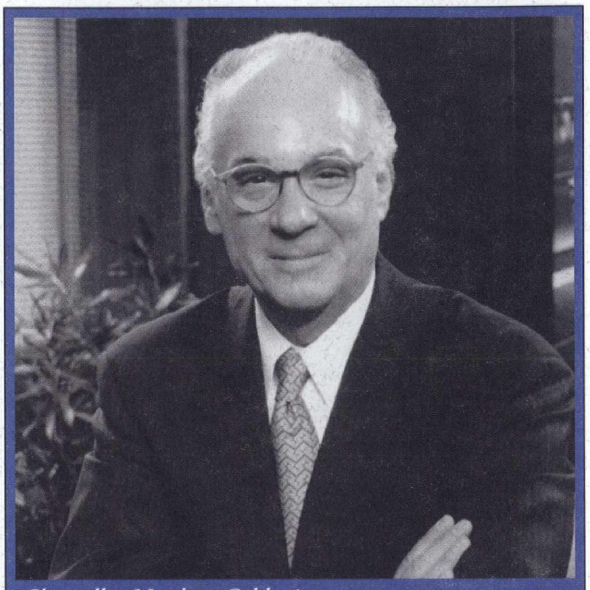
Changing the Guard at LSAMP's Governing Board: CUNY's New Chancellor Takes the Helm

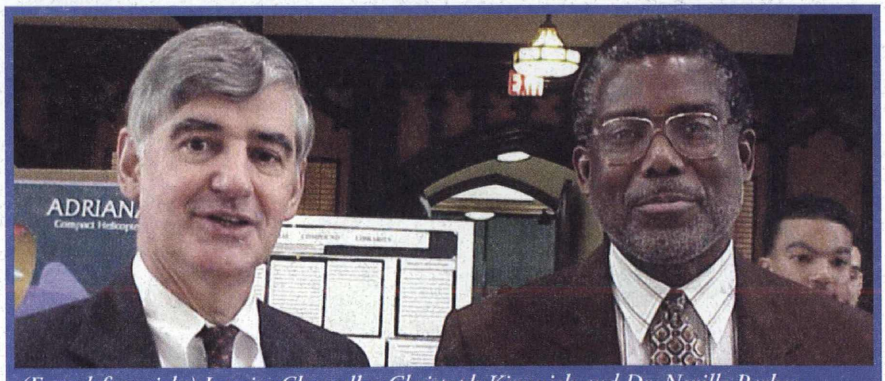


Chancellor Matthew Goldstein

As the only externally funded program to span the whole of CUNY, LSAMP has been privileged to have the University's Chancellor chair its Governing Board. We wish to thank Interim Chancellor Kimmich for his support and guidance. We deeply value his engagement in our efforts to build a University-wide SMET community and are grateful for the high profile which he has given LSAMP within the University. We look forward to his continued participation in the LSAMP endeavor. We welcome our new Chairman, Chancellor Goldstein. As a CUNY graduate, who has been president of Baruch College and the CUNY Research Foundation, and as a nationally prominent statistician, who is an active member of the scientific community, his leadership will be invaluable to LSAMP. We look forward to working with him as we all strive to make CUNY a model of education in science, mathematics, engineering, and technology.

"Over the past seven years, LSAMP has promoted excellence at CUNY by expanding opportunities for minority students in science, mathematics, engineering, and technology. Key courses in calculus, chemistry, and physics have been restructured; faculty laboratories were opened to undergraduate research scholars; aspirant teachers in science and mathematics were given the necessary training for New York City's schools. In April, over one hundred LSAMP mentors were honored by their students at a CUNY-wide conference in Shepard Hall. Through LSAMP, SMET departments at sixteen undergraduate CUNY campuses and the Graduate School and University Center have worked together, bringing about systemic reform. I followed LSAMP's progress closely as Interim Chancellor and will continue to do so as President of Brooklyn College. As CUNY looks towards the future, the LSAMP commitment to academic achievement and cross-university collaboration will be the model to emulate."

Christoph M. Kimmich



(From left to right) Interim Chancellor Christoph Kimmich and Dr. Neville Parker.

The President's View: Thoughts on LSAMP from CUNY's College Presidents

Dr. Dolores M. Fernández, Eugenio Maria de Hostos Community College

"At Hostos," says President Dolores M. Fernández, "our mission is to encourage hope and develop potential. Our message to students interested in science and mathematics is 'You can do it if you want to, and we will help you'. LSAMP is an important element in our ability to support SMET students and offer them research opportunities." Dr. Fernández shares LSAMP's commitment to opening SMET studies and careers to minority students. She knows first hand how often SMET talent goes untapped in women and minorities. "As a child," she says, "I excelled at math but was not encouraged to pursue the subject. We must focus on science and mathematics and push our students to succeed."

Dr. Fernández came to Hostos as acting president in 1998 and was named president this summer. She brings a deep understanding of K through 16 education to SMET reform at CUNY. A Professor of Curriculum and Teaching at Hunter College since 1990, she has served as Deputy Chancellor for Instruction and Development for the New York City Board of Education as well as Deputy Director for Program Services and Director for Education in the New York State Youth Division. Her research has centered on urban school reform and urban teacher education, and her career has included teaching at the early childhood, elementary, middle school, and college levels.

"In New York," she says, "standards in math, science, and technology have been applied haphazardly. They should be stressed City-wide. In the future, I would like to see LSAMP reach down into middle school and late elementary school and infuse them with its rigorous, research-based philosophy of teaching and learning. As a teacher, I brought hands-on science into my classroom. Children saw science as fun and I never

Dr. Dolores Fernández, President of Hostos Community College

continued on page 7

The NSF Summer Research Conference: an LSAMP Tradition

Leaving New York to present their research and exchange ideas with peers and scientists from across the country has always been a heady experience for NYC LSAMP scholars, and this year was no exception. The 1999 Summer Research Conference was held at the University of Alabama at Birmingham. It honored Dr. Luther Williams, Assistant Director for Education and Human Resources at the National Science Foundation, for his distinguished leadership in improving SMET educational opportunities for minorities and women. As usual, NYC LSAMP can be proud of its student representatives:

Taking **first place in the Computer Science poster competition** was **Philip Diaz, II**, a Medgar Evers graduate and CUNY BA senior. A Systems Programming major, his award-winning project entailed networking the Oracle 805 Database Management System to a local area network designed by Medgar Evers students. His work created a computing environment of professional quality for the College's Introduction to Database Systems Management course. Phil is applying to the doctoral program in Computer Science at the CUNY Graduate School and University Center and the master's program at City College. He intends to do research and teach at the university level.

"Attending the NSF Research Conference was empowering. I came home feeling that I could accomplish anything I wanted to."

LSAMP Research Scholar Yarice Rodriguez

Leah Pride spent the second semester of her freshman year at City Tech on a fellowship at Brookhaven National Laboratory where she participated in a spectroscopic study of combustion radicals. She presented her Brookhaven research in Alabama. Leah came to LSAMP as a Precollege Scholar and worked with Dean Sankar Sastri on the corrosion analysis of bridge wires. A Chemistry major, she is currently doing research with her mentor, Dr. Pamela Brown, on a chemical treatment process to remove silver ions from water.

Yarice Rodriguez, a Hunter College senior majoring in Geography and Energy and Environmental Policy, presented her poster "Exploring Butterfly Migration in an Urban Setting." Her current interest is in Geographic Information Systems. After graduation, she plans to earn a certificate in the subject. She is also participating in the Public Service Scholar Program at Hunter. This entails a year-long internship in the public sector and advanced courses in Urban Planning.

Mervyn Roach presented the work on animations of hyperbolic functions which he did under the mentorship of Dr. Lawrence Sher. Mervyn, who is a senior at BMCC, is transferring to Baruch where he will major in Computer Information Systems. He looks forward to learning about networking for business and eventually to combining consulting with a university professorship.

Queens College senior **Steve Castro** presented his project "Synthesis of Polycationic Strings" which entailed derivatizing cycrodextrins to be more regioselective. Steve, who is majoring in Chemistry, has been working with Dr. Robert Engel. He plans to go on to doctoral studies.

Summer at NYC LSAMP: Busy and Productive

Undergraduate Research: the Work Goes On

Seventy dedicated LSAMP students continued their research through the summer, working at CUNY, in the NASA GISS Institute on Climate and Planets, and in a significant number of private sector laboratories. The following snapshots of research on two campuses exemplify the quality of the work which is being done year-round in the NYC LSAMP Undergraduate Research Program.

At City Tech, Dr. Djafar Mynbaev put together a team of five students from the Department of Electrical Engineering Technology and Telecommunications to help him with his research in Fiber Optics Communications Technology. He broke the topic into four areas and assigned specific research projects to his mentees: Patricio Bustamante focused on computer simulation of light propagation within an optical fiber and William Otieno on measurements of characteristics of optical fibers. Dr. Mynbaev will apply their findings to the course in Fiber Optics Communications which he teaches at City Tech. Carlos Azevedo concentrated on developing a method for troubleshooting fiber optics communications systems. He is already an accomplished researcher who last year published and presented the work he did with his mentor. Magda Rodriguez and Waicahliar Aung were new to Dr. Mynbaev's lab, joining him this summer. They applied themselves to theoretical calculations on the characteristics of optical amplifiers. Dr. Mynbaev is very pleased with their progress and hopes that their work will be published within the year. All five students are pursuing bachelor's degrees in Telecommunications and are continuing their research with him this fall.

At Bronx Community College, Dr. Joseph Malinsky brought together the team of Johan Veras, John Akindayo, and Danielle Thompson to pursue his research in Mathematical Biophysics. "My philosophy," says Dr. Malinsky, "is that research and education go hand in hand." He points out that his project is ongoing. "John, who is now at Lehman, and Johan worked with me last year. Danielle joined us this summer. She did beautifully in my Physics class, and I suggested her for the LSAMP program." Last year, he began his work with the students using mathematics to investigate the structure of macromolecules such as DNA and proteins through topology. This summer, he introduced his mentees to classical dynamics, moving from the study of the systems' structures to the study of how they move and reproduce. Dr. Malinsky is also on the faculty of the Department of Biomathematical Sciences at Mount Sinai Medical School. That is

continued on page 6

Where Are They Now? The Accomplishments of LSAMP Alumni

Jose Lorenzo: Completing His Ph.D.

In September 2000, Jose Lorenzo expects to receive his doctorate in Chemical Engineering from CUNY. His City University career began at Hostos Community College, from which he graduated in 1992. His next step was the bachelor's program in Chemical Engineering at City College, where he joined LSAMP, conducting research in gas fluidization and particle technology under the mentorship of Drs. Herbert Weinstein and Gabriel Tardos. Jose found City's School of Engineering to be a highly supportive environment, and he thrived. He attended RCMS meetings conducted by Dr. Neville Parker, whose advice he valued deeply, and found another mentor in PRES Director, Dean Ramona Brown. Following his bachelor's degree, Jose enrolled in the University of Florida to pursue his doctorate. He found, however, that he was a New Yorker at heart, and having earned his master's, determined to return to the City. He was accepted into the Chemical Engineering doctoral programs at Columbia, Polytechnic, and CUNY. "The City College School of Engineering was home," he says. "That is why I chose CUNY." For the first year and a half of his doctoral studies he was part of CASI (The Center for Analysis of Structures and Interfaces at City College) under whose auspices he attended seminars and national conferences in science and engineering. Jose is currently an AMP graduate research scholar. He is conducting his doctoral research on surface active molecules under the mentorship of Drs. Alexander Couzis and Charles Maldarelli. Jose intends to go into industry and is looking forward to a research and development job in Chemical Engineering.

Richner Erisnor: Teaching in the Precollege Classroom

For the past four years, Richner Erisnor has been teaching Physics at Theodore Roosevelt High School in the Bronx. At BMCC, where he was an Engineering Science major, he did LSAMP-supported research in Chemistry. When he transferred to Hunter College for his bachelor's studies, he changed his field to Physics and did research on lithium batteries in the Nuclear Magnetic Resonance lab of Dr. Steve Greenbaum. "Teaching is very rewarding," he says. "I have a tremendous impact on the kids. I teach both regular and advanced placement classes. It is a great feeling when my students get into good colleges and get credit for the AP Physics they did with me." This year, Richner is teaching Earth Science, using the Astronomy he studied at Hunter. "At Hunter, I was an LSAMP tutor in Calculus, Physics, Chemistry, and Astronomy," he says. "That was great background for teaching, and so was my research. When I teach a lab, I show students how to approach problems by looking at the evidence, making inferences, and drawing conclusions." Richner returns to Hunter often and is always welcome in Dr. Greenbaum's lab. For two years, he taught the lecture part of his AP Physics course at Theodore Roosevelt and the lab component on Saturday mornings at Hunter, exposing his students to the atmosphere of a college Physics Department and introducing them to his alma mater. Richner is planning to make his career in precollege education. He hopes to pursue a master's degree in Administration and Education. He will be applying to Bank Street College of Education.

Mentoring for 2000 and Beyond: Profiles of LSAMP's Super Mentors

Tony Nicolas, New York City Technical College

Dr. Tony Nicolas first came to CUNY for a summer internship in the Hunter College Chemistry Department when he was a bachelor's student at the State University of New York. His work under the mentorship of Dr. Robert Lichter was such a positive experience that he chose the CUNY Graduate School and University Center for his Ph.D. studies and returned to Hunter, this time working with Dr. Richard Franck. "Dr. Franck," he says, "turned me into an organic chemist." When asked what has made him such a devoted and hard-working mentor, he says, "I had great mentors myself. They engaged me in research and had a tremendous impact on my career. Without them, I would not have become a scientist."

Following graduate school, Dr. Nicolas joined the CUNY faculty, first at Medgar Evers and then at City Tech. His current research in Organic Synthesis started under the auspices of LSAMP's SEMRAP (Science, Engineering and Mathematics Research Articulation Program). His senior college partner for the project was Dr. David R. Mootoo of the Hunter College Chemistry Department, and he consulted frequently with his mentor, Dr. Richard Franck. Dr. Nicolas's enduring relationship with Dr. Franck is a model for his relationships with his own mentees. "I am able to teach students entering City Tech the techniques and theory of research in Synthetic Organic Chemistry, so that they develop the necessary tools to play a productive role in the lab. This year, I have a freshman mentee who started with me as an LSAMP precollege student, and last summer my mentee Elizabeth Tyson presented a paper at the meeting of the American Chemical Society in New Orleans. It is very rewarding to see students grow intellectually, get on a career path, and fulfill their dreams. We stay in touch long after they have left City Tech."

When asked about research and mentoring in the context of a heavy teaching load, Dr. Nicolas replies, "Because the students and I are determined, we find time late in the day, on Saturdays, and on holidays. Making time for research is a challenge which we meet with our enthusiasm." The stipends provided by LSAMP to precollege and undergraduate research scholars are crucial, he says. They enable students who would otherwise have to work outside the college to spend time in the lab. "LSAMP," he says, "is a wonderful endeavor. Its research component has gone very well at City Tech. We are steadily improving our research infrastructure, and the faculty is very excited about mentoring. What I would like to see in the future is a larger LSAMP supply budget. Our research community is not as well established and or as well funded as in a senior college. With greater support, we could do even more for our students."

Ruth Stark, College of Staten Island

Dr. Ruth Stark holds an A.B. from Cornell in Chemistry and a Ph.D. in Physical Chemistry from the University of California at San Diego. She did her postdoctoral work at MIT in Molecular Biophysics. Prior to coming to CSI in 1985, she taught at Amherst College. She serves on the doctoral faculty at the CUNY Graduate School and University Center in Chemistry and Biochemistry.

"I have always had undergraduates in my lab as well as Ph.D. and postdoctoral students," she says. "In this context, the mentoring role comes very naturally. I mentor my students, and they mentor each other. There is a great deal of continuity. Two students who started out as CSI LSAMP scholars their sophomore year are now Ph.D. students in Biochemistry, doing portions of their research in my lab."

Dr. Stark's research has three focuses: the molecular structure of polymers in the skin of fruits and vegetables; the molecular structure and organization of fats and of proteins which carry fats; and the biochemistry of cell death. The first topic has an everyday 'hook' which gets students involved; the second draws them deeper into study at the molecular level; and all of the projects make intensive use of techniques such as Dr. Stark's specialty, Nuclear Magnetic Resonance.

Dr. Stark is also involved in implementing the LSAMP model of a mini-institute through CSI's Center for Visualization of Biological Surfaces and Interfaces, which was originated by her colleagues Bill L'Amoreaux (Biology) and James Batteas (Chemistry) and includes Probal Banerjee (Chemistry and Neuroscience). The Center draws students from various levels, laboratories, and disciplines that range from cell and molecular biology to spectroscopy and physical chemistry. "The Center," says Dr. Stark, "is a good model for getting kids engaged in research, talking to each other and to us. Our approach to each student is very individualized. We feel that working with several faculty members allows them to see different research styles and techniques and to develop a solid basis for deciding what they want to do in the world of science."

"There is a lot of energy going into research at CSI, and students become infected with it," Dr. Stark continues. "We bring our LSAMP students together with other research students in poster sessions and symposia. We leverage our external funding to support students in our labs. They get to know us not only as teachers but as committed researchers. By getting to know us personally, they see what it means to be a working scientist."

NYC LSAMP Facts

A survey of NYC LSAMP Research Scholars attending the April '99 Mentor Recognition Conference shows that:

- ***Scholars consider it paramount to reciprocate their mentors' efforts by being committed to their research.***
- ***A quality mentor/scholar relationship is characterized by good communication and adequate time spent together.***
- ***A good mentor is a helpful, insightful role model who gains from giving.***

Summer at NYC LSAMP continued from page 4

where most of the summer research took place, giving students access to the Mount Sinai state of the art computer facilities. The project will continue this fall, when Dr. Malinsky plans to take his mentees to colloquia at Mount Sinai and City College and to a conference at the Institute for Advanced Studies at Princeton University.

The Precollege Program: Early Opportunities for CUNY's SMET Freshmen

Activities on six CUNY campuses provided a rich introductory experience for 55 talented SMET students preparing to enter CUNY.

Baruch and City teamed up for a joint program in Computer Information Systems and Computer Science. It was offered at City to LSAMP Precollege Scholars from all over CUNY. Over six weeks, it provided instruction in Web pages, HTML, and C++ to students whose computer literacy varied widely. For Jose Cortes, now at Hunter, the program confirmed his interest in Computer Science and gave him an advantage in tackling college courses. It helped Joseph Alminawi determine that Computer Information Systems was the field for him. Jose Cortez and fellow LSAMP Precollege Scholar Ralph Vacca, from Baruch, are working together on the LSAMP Web site. Queens College also offered a summer experience in Computer Science with a team approach to leaning Visual Basic 6.0.

At CSI, mentor Junior Jeanty speaks glowingly of the LSAMP Precollege Scholars who were included in the CSI Discovery Program. Junior is a CSI graduate who earned honors in Mathematics and a Presidential scholarship towards graduate school. He teaches Mathematics at East New York Transit Technology High School. "I am very impressed with the backgrounds of our incoming SMET freshmen," he says. "I wish that I had been in a program like this one. It really gives kids a leg up." Each LSAMP Precollege Scholar received individual mentoring, and all were given grounding in research methodology. Research and mentoring were also the focus at Hunter and City Tech where Precollege Scholars were placed in faculty laboratories, when possible with LSAMP undergraduate researchers. The experience was a great success and all are continuing their research as freshmen.

Teacher Preparation: a Model for the Future

This summer, the LSAMP Teacher Preparation Initiative joined forces with NASA-funded MASTAP for a high powered, multi-faceted program which encompassed teaching methodology, SMET content, and classroom experience. Two courses addressed issues in pedagogy. At City Tech, Professor Adam Abdallah of Medgar Evers offered a Teaching Psychology course. At City College, Professor Ellen Goldstein taught *Inquiry in the Science Classroom*, an intensive three-week version of one of the College's key education courses. It familiarized students with the methodology of inquiry and the constructivist approach to learning and gave them the opportunity to meet with master teachers. For Mozella Richardson, a senior at City College in Civil Engineering, the course was "an eye opener." "Professor Goldstein's class showed me how much goes into teaching and how complex it is to get people to understand things conceptually," she says.

The program provided access to two unique teacher education experiences. At NASA's Goddard Institute for Space Studies Institute on Climate and Planets, LSAMP Scholars attended weekly earth climate education workshops and faculty-scientist education product R&D discussions. According to ICP Director Carolyn Harris, "A driving idea behind the GISS ICP education model is to devise practical ways to use the interdisciplinary study of Earth's climate for developing students' science inquiry skills." The summer' s work culminated in the ICP conference *Models for Earth System Science Inquiry in the Classroom* at which lessons, modules, and courseware using NASA's Earth Science and climate research were presented. At the Summer Staff Development Institute of the Salvadori Center's Middle School Program, LSAMP Scholars joined teachers being trained in an interdisciplinary, project-based approach to learning which uses architecture and the study of the built environment to engage youngsters in math, science, and language arts. The Center's Director, Dr. Lorraine Whitman, has invited the LSAMP participants to continue during the academic year, working in the classroom with teachers and the Salvadori Center architect/educators who advise them.

To put newly acquired knowledge into practice, the LSAMP Central Office placed students with master teachers in some of the City's most demanding schools. For veteran LSAMP Research Scholar John Romo the experience was deeply satisfying. A mature student, who will be graduating from City College with a bachelor's degree in Mechanical Engineering, he already has a helicopter design to his credit. "I would like to continue with my helicopter project," he says, "but I would also like to teach young people so that they can carry the torch in science and mathematics." LSAMP scholars were also placed in Proyecto Access at Hostos Community College, where they worked alongside Hostos faculty members and New York City high school teachers, teaching and mentoring middle and high school students. The Teacher Preparation Initiative is an all-year program, so all 18 summer participants are continuing this fall.

> ***"I was very fortunate this summer to have as my assistant and co-teacher Mr. John Romo. He and I both taught Pre-Calculus I and II and Sequential Math Course II to students here at Stuyvesant High School. Not only did I find Mr. Romo very competent but also a great help to me in assisting on an individual basis, tutoring students who required additional help. His eagerness to learn his trade and help students is indeed commendable. I also allowed Mr. Romo to teach two lessons to my Pre-Calculus class on his own. I was very impressed with his knowledge and abilities. Your program should be commended for producing such talent."***
>
> ***Edward Wong, Department of Mathematics and Computer Science, Stuyvesant High School***

Parker continued from page 1

we initiated gathering momentum? How well attended are the courses which we have changed to include cooperative learning and peer tutoring?

Transitions and Articulation: For seven years, we have sought out and encouraged SMET talent in the community colleges and eased the transition of students to senior colleges and SMET bachelor's degrees. What more can we do within SMET disciplines to promote articulation? Our Precollege Research Program is drawing SMET students into research even before they matriculate at CUNY. Our Teacher Preparation Initiative is preparing SMET majors to teach in the precollege classroom. How else can we expand our presence in New York City's schools?

We look forward to a year of constructive questioning in which we sharpen our focus on the road ahead and hold ourselves rigorously accountable to the LSAMP mission of increasing the number of minority scientists and engineers both in industry and the professoriate.

Fernández continued from page 3

met with resistance. I introduced my middle school students to research. These activities should take place across the board. Too often they are limited to gifted and talented classes."

Dr. Fernández commends LSAMP's efforts to establish a K through 16 SMET pipeline and its accomplishments in easing the transition of SMET students from community to senior colleges within CUNY, but she points out that much remains to be done. "For New York City to have a comprehensive and cohesive K through 16 system, articulation agreements must be enforced between and among the City's high schools and CUNY's colleges," she says. "The impetus to establish standards at both the precollege and the college levels will facilitate the acquisition of a bachelor's degree; however, we are not there yet."

When asked about SMET initiatives at Hostos, Dr. Fernández cites her administration's goal to design and implement fast track programs in pre-engineering and pre-medicine. These accelerated twelve-month programs will run from summer to summer. They will enable high school graduates with the academic credentials in mathematics and science to earn the associate's degree in one year, facilitating their transfer into four-year institutions as juniors. It is anticipated that graduates of the Hostos fast track programs will be admitted to the engineering programs at City College and Turabo University in Puerto Rico and to the pre-medicine program at the University of Puerto Rico. Dr. Fernández also speaks of her ambition to make Hostos a dual language school from which all students graduate able to function cognitively in two languages. "There is a huge demand for bilingual professionals, particularly in engineering and medicine," she says. "At Hostos, we are taking strides to fill that void." The college is establishing Academic Language Corridors leading to the mastery of two languages by all students. LSAMP Steering Committee member, Professor Humberto Cañate, and several of his Hostos colleagues recently attended an institute in Texas where they developed curriculum with language enhanced materials to help Spanish-dominant students in engineering and computer science. "LSAMP is a key part of our strategy as we strive to educate bilingual SMET professionals," says Dr. Fernandez. "I intend be a strong advocate for its support within the University."

LSAMP Precollege Scholars at City College

LSAMP Project Administrator Dr. Claude Brathwaite (far right) with LSAMP students in Alabama

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