Welcome to Baruch STEP Academy’s inaugural newsletter. We hope that this will be the first of many newsletters that highlight the activities that the STEP students have been involved with each semester here at Baruch. From the orientation early in March 2007 to the last days of summer, the students have been fulfilling STEP’s goals of enhancing their interest in science, math, technology and health-related disciplines while also building awareness of the higher education opportunities and careers related to these fields.

The students started in the spring with a college prep course where they developed goals and action plans for their path to college and beyond. In the afternoons, they participated in field trips, presentations, and panel discussions that highlighted health and science careers. Summer brought new teachers and the students spent their mornings either identifying trees in Central Park for an ecology class or identifying hair in a forensics lab. In the afternoons, students created their own website or their own bridges out of wooden coffee stirrers (some which held over 225 pounds!)

Whatever the task, the students have mixed a relaxed playful attitude with an inquisitiveness and earnest desire to learn. I have not been surprised when just about every speaker, panelist, or teacher exclaims how special these students are. They have developed friendships as well as respect for each other in and outside of the classroom. They have also shown a great amount of patience with a director who drags them out

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MISSION: SCIENCE & TECHNOLOGY ENTRY PROGRAM

Purpose
To increase the number of historically underrepresented and disadvantaged students prepared to enter college, and improve their participation rate in mathematics, science, technology, health related fields and the licensed professions.

Eligibility
Competitive grants are awarded to institutions of higher education (IHE). IHE’s administer projects in schools/school districts with 20% or more enrollment of historically underrepresented students.

Target Audience
STEP serves secondary school students all over New York State. Students must be:
- Enrolled in Grades 7-12
- Economically disadvantaged, or Black, Latino, Alaskan Native, or Native American Indian; and will benefit from academic enrichment.

Program Services
STEP provides academic enrichment in science and mathematics content areas. Projects consist of academic year and summer components including:
- Core subject instruction
- Regents exam preparation
- College admissions counseling
- Standardized tests preparation
- Career awareness/development activities

(from the New York State Education Department website)

SPRINGING INTO STEP

The official start of the STEP Academy at Baruch College was in the spring of 2007. Beginning March 3rd, sixty-five ninth and tenth graders took part in the program for eleven Saturdays.

In the morning the students had a college advisement course entitled Think College Now. Each student received a journal that contained exercises (a career goal pyramid, find your major, dream college resume, etc.) to help them plan their future.

In the afternoon, the students attended panel discussions, presentations and field trips. Field trips included attending the Bodies Exhibition, a visit to the moveable museum from the American Museum of Natural History and going to the East River to test its water quality.

Students were also invited to visit the New York University’s Nursing College Lab. This lab has SimMan models, which are state-of-the-art computerized patient simulator that nursing students use to learn and carry out critical medical practices, such as CPR, taking blood pressure, and chest tube insertion.

Bizarre FARM Productions videotaped the panel discussions, along with other activities the kids took part in. One of these discussions included Chantale Damas, a research associate at Medgar Evers College with a PhD in Applied Physics; Marc Gillespie, a St. John’s University professor with a PhD in microbiology; and Eduardo Hernandez, an engineering PhD student at City College. Each spoke about how they got interested in science and their careers. Representatives from The Teacher’s College @ CUNY and the Honors College @ CUNY made presentations about their respective programs. Students were given personal accounts of being part of these programs.
About twenty-five students participated in the four week intensive summer program this year. Students had the opportunity to take either ecology or forensic science in the morning and web design or physics by design in the afternoon. The students had the added perks of free metrocards and $4 lunch vouchers just for the summer.

AM Classes

The Green Monster:
An Introduction to the Diversity, Ecology and Importance of Forests.
Students enhanced their research skills while learning about NYC’s ecological system. The students went on two field trips to Central Park for tree identification. They also went to the Union Square Greenmarket to question farmers about their process of organic certification for their goods.

An Introduction to Forensic Science
The students got a firsthand look at what real forensics experts deal with on a daily basis. In lab, they learned fingerprinting, how to analyze hair and blood samples and interpret impression evidence. At the end, students had their own case and evidence to work on and then testified at a mock trial about their findings.

PM Classes

Web Design
The students learned the basics of designing web pages from start to finish. Topics touched upon were navigation design, usability design, composition and layout, use of color, type and images for the Web. Students were creative and unique in creating their own sites.

Structural Science: Physics by Design
Students worked in teams to design and construct model bridges, catapults and roller coasters. As the students worked together, they learned the basic geometry and physics behind such structures.
This summer, Peter Karp taught Physics by Design. This class concentrated on instructing students on the basics of building a bridge, a rollercoaster or a catapult. This was a very popular and successful class. Peter has worked at the Institute for Collaborative Education for six years, where some STEP students attend school. In the future, Peter wants to work in education reform. He wants to start his own school or support the development of new schools.

On just completing his masters’ degree in educational leadership in two and half years, Peter stated, “It was a very satisfying experience. But it’s hard to go to school and work.” He advises that graduate students don’t take on more than they can handle while they are working full time.

Q: Why do you like working with kids?
A: I think it’s because I like the constant stimulation and challenge. Frankly, it’s an intangible level of enjoyment in just being around kids and teenagers. I think that there is the intellectual challenge of trying to communicate information and knowledge and to try to get people excited and interested in new things.

Q: What surprised you most about these students?
A: It surprised me that the students had a hard time figuring out how to build things. The activity is inherently challenging. Most kids don’t spend time building or fixing things in the city. It’s hard to make a model rollercoaster or bridge. There is no easy solution. It is not just about intellect; there is a combination of many different cognitive processes.

Q: What would you have done differently this summer?
A: I would focus on just one project, there was not enough time. Do one project and include more stages for each activity. For example, build the bridge, collapse the bridge and build again.

Q: How was your experience?
A: I really enjoyed it. I never taught a group that was uniformly motivated and quick to engage

Q: What are your feelings about the STEP Academy?
A: It’s a great opportunity. The kids have a very positive experience, it pushes these kids to be involved in school in ways they haven’t been before.
Name: Yasmine Delgado  
Age: 15  
Grade: 10th  
High School: St. Catharine Academy  
Interests: Writing, dancing and reading  
Activities: Track and volunteering  
Goals: I want to become a pediatric oncologist and obstetrician.  
Favorite Movie: Honey, Save the Last Dance and Selena  
Favorite Book: If I Should Die Before I Wake- by Lurlene McDaniel  
Favorite Quote: The impossible is always possible.

Name: Erica Moses  
Age: 15  
Grade: 11th  
High School: Academy of Mount Saint Ursula  
Interest: Science  
Activities: Swimming  
Goals: To finish high school, go to college and become a biochemist  
Favorite Movie: Diary of a Mad Black Woman  
Favorite Book: Chicken Soup for the Teenage Soul I-IV  
Favorite Quote: “I call you but you don’t answer me…or maybe the silence is you listening.”

Name: Robinson Cruz  
Age: 15  
Grade: 10th  
High School: Institute for Collaborative Education  
Interests: Fan Fiction  
Activities: Soccer and Choir  
Goals: Go to a good college and become a professor.  
Favorite Movie: Dogma  
Favorite Book: Too many to count  
Favorite Quote: “Well I suppose you’ll just shove the little men off.”

   - Shenton Thomas.

Name: Melissa Monsalve  
Age: 15  
Grade: 10th  
High School: The Mary Louis Academy  
Interests: Biology and the Environment  
Activities: Shopping and Reading  
Goals: Get a Ph.D. on Environmental Studies  
Favorite Movie: Cinderellaman  
Favorite Book: The Color of Water by James McBride

Name: Michelle Tulcan  
Age: 15  
Grade: 11th  
High School: The Mary Louis Academy  
Activities: Lacrosse and tutoring  
Goals: To become a genetic scientist with a Ph.D. from Brown  
Favorite Movie: Any John Hughes movie  
Favorite Book: My Sister’s Keeper by Jodi Picoult  
Favorite Quote: Do not pity the dead, Harry. Pity the living and above all, those who live without love.”

   –Dumbledore.

Name: Charity Fisher  
Age: 15  
Grade: 10th  
High School: St. Saviour High School  
Interests: Math, Science and English  
Activities: Booster’s Team  
Goals: To become a math, English, and science teacher  
Favorite Movie: Anything with Will Smith and/or Martin Lawrence  
Favorite Book: A Lesson Before Dying- By Ernest J. Gaines  
Favorite Quote: Life isn’t about the number of breaths you take, but the moments that take your breath away.
**Tentative Schedule**

**AM**

**Math B Regents Prep**
- Students would receive tutoring in preparation for the Math B Regents.

**Science Bowl**
- Students study topics from all major sciences (primarily biology and chemistry). *Tentatively, the top five students will go to Rochester for state competition in February 2008.*

**Review of Geometry & Algebra through Art**
- Students are introduced to isometry as a way to review algebra and geometry by looking at corporate logos and the wallpaper designs of MC Escher.

**PM**

**CPR- Adult, Child and Infant**
- Learn to recognize breathing and cardiac emergencies in adults, infants and children and to perform CPR with supervised hands on practice.

**Physics by Design II**
- Students work together to build roller coasters while simultaneously learning about the geometry and physics behind building these structures.

**Media Literacy & Technology (Web Design II)**
- Students are exposed to the array of new media tools, their accompanying methods, and technology standards.