

VOLUME 1 ISSUE 2

SCHOLARS

HONORS
PROGRAM



NEW YORK CITY COLLEGE OF TECHNOLOGY
of The City University of New York

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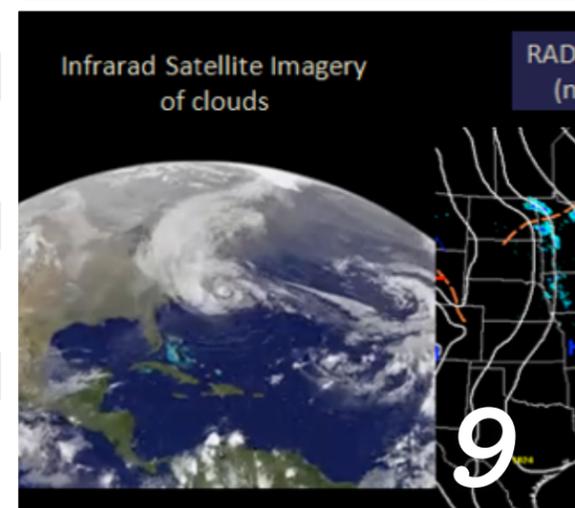
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Time to Unwind

Felicia Francis

It's the end of the semester: time to relax, catch up on some good novels and a well-deserved vacation. It is a good feeling knowing that you do not have to get up at 6am in the morning for an 8am class, no more test anxiety, and no more assignments.

The Honors Scholars Program helped its members kick off their winter break on December 20, 2012 with a day of fun and a chance to reflect on what service means in our everyday activities. We had the chance to share a memorable experience of bowling as members of the Honors Scholars Program, followed by an end-of-semester Christmas party. We started this fun-packed day with bowling at Maple Lane, a welcome moment to unwind, have fun and meet and make future friends. It was a pleasurable feeling not to think about school activities for a bit.

The Honors Scholars Program planned a much-needed day of fun and relaxation for its members. After our bowling trip, we had the chance to finish the day with a Christmas party shared with the Black Male Initiative members. During this relaxed gathering, we shared carols, laughs and food. However, the most important purpose was the message at this Christmas gathering: we were asked to meditate on the theme of "service." Even though it was the end of the semester and our time to relax, we should give of ourselves. The theme of "service" was emphasized by several guest speakers, including Professor Liou-Mark who left us with an old Chinese proverb: "If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people." Prof. Liou-Mark shared with the audience that the best thing we can do as people is giving of ourselves and that we should go beyond ourselves in our everyday life. She shared her experience with us when, on vacation in Africa, she saw young children in school without school supplies. That experience compelled her to do something and give of herself by hosting a book-drive for these children.

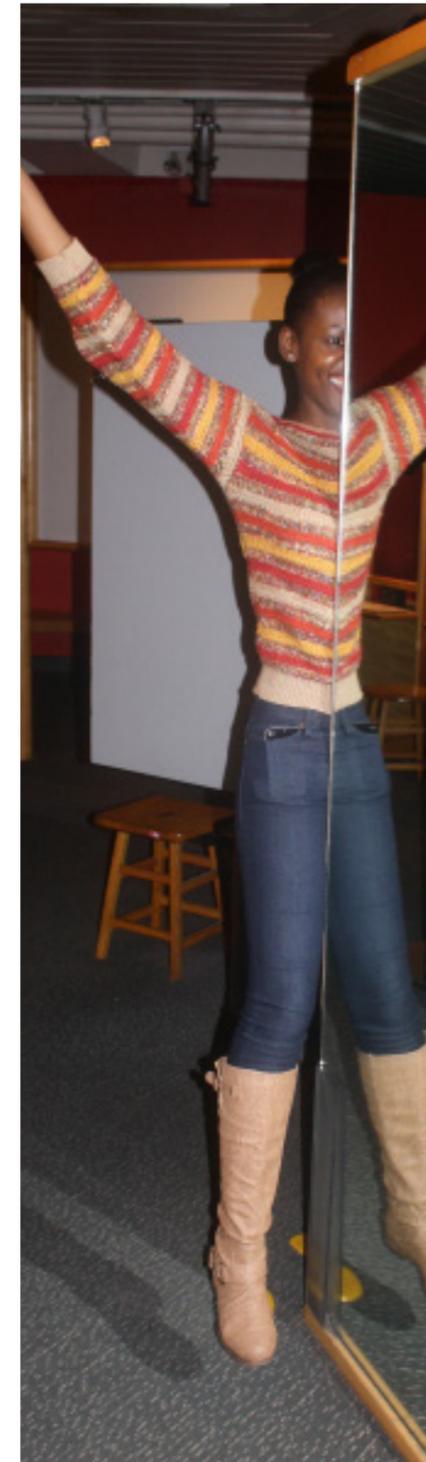
The Honors Scholars Program gave us a chance to enjoy and unwind on our last day of school, but, most of all, it taught us to give back to our community, because, as members of the National Society of Collegiate Scholars, we should be committed to leadership and service to impact our communities.



No more test anxiety and no more assignments.

It all Begins with Child-like Wonder The Inspiration of the Hall of Science

Tamrah Cunningham



We all hold a childish wonder in learning about how things work or why certain events take place. When we see a rainbow, we want to know what caused it to appear. These questions and more were answered on November 9, 2012, at the New York Hall of Science in Queens.

Composed of three floors, the New York Hall of Science focuses on different aspects of science. The main level has many stations such as an area that explains how our peripheral vision works. Another explained the refraction of white light to form a visible rainbow. Not only were there small exhibits like these, but larger exhibits where you had to utilize your whole body like the hall of mirrors that distorted your shape and the anti-gravity mirror that gives the user the chance to feel like floating.

After the chance to explore for a while, the group of students had the opportunity to watch a live cow's eye dissection. This demonstration gave the viewers an in-depth look at the inner workings of an eye and many realized that a cow's eyes are not that different from human eyes structurally. Other, less unsettling exhibits included one explaining probability, one explaining the structure of DNA, and stations that allowed guests to build and recreate their own molecules. There was even an exhibit that tested depth perception.

All of these were just on the first floor. On the upper levels, exhibits focused on explaining kinetic energy and how the human body's muscles worked when performing different actions like sports. There were also chances to arm wrestle online and even the ability to measure how fast you can

throw different types of balls. Some exhibits were dedicated to the network phenomenon, both physical, with a huge pulley system that never formed the same pattern depending on how you turn the wheel, and biologically, by showing the network that ants create

Going to the New York Hall of Science was a dazzling reminder of the amount of knowledge that can be obtained by playing.

and have established to live. However, my favorite will always be a small little station that plays a beautiful piano piece: your goal was to follow the network of cables to change the melody in order to create a new harmonizing piece.

Going to the New York Hall of Science was a dazzling reminder of the amount of knowledge that can be obtained by playing. It is a scientific playground for all and reminds us that, once, all the great scientists were kids exploring new ideas that others never thought possible.

A Gathering of Scholars

Ruchoma A. Kaganoff



As students, family and friends filed into the Atrium Amphitheatre on October 25, 2012, a palpable feeling of excitement filled the air. This event, the Induction Convocation Ceremony of the National Society of Collegiate Scholars

August, Provost and Vice President for Academic Affairs, in her welcoming remarks at the ceremony, highlighted this when she reminded new inductees that the ideal of service in the NSCS comes from the belief that those who are blessed

The NSCS chapter at New York City College of Technology welcomed 193 new members into its ranks.

(NSCS), marked the participants' achievement in their academic pursuits, commitment to excellence, and desire to serve and excel in the collegiate and global communities. At this ceremony, the NSCS chapter at New York City College of Technology welcomed 193 new members into its ranks. This is a record high for the society's City Tech chapter.

For a newer honor society that only recently celebrated its eighteenth anniversary, this has been quite a feat, and many credit this to the NSCS's focus on service. Dr. Bonne

and talented should use these talents to help others. This is a powerful message for new inductees and others in the audience that those who excel in school or in other areas have special talents that can be used to help others.

Next, Dr. Marcela Katz Armoza, Vice President of Enrollment & Student Affairs, shared a lesson on the secret to success. She explained that most people think that success leads to happiness. However, according to some studies, happy people tend to be successful. Thus, the secret to being high

achievers is happiness, and the secret to happiness is to be grateful. Dr. Armoza challenged students in the audience to say "thank you" for three things each morning. This, she says, is a powerful tool for achieving happiness and thereby success.

In addition to Dr. August and Dr. Armoza, the audience heard from the chapter advisors, Mr. Daniel Fictum, Director of Student Life & Development, and Dr. Janet Liou-Mark, Professor of Mathematics and Director of the Honors Scholar Program. Mr. Fictum encouraged students to become involved in NSCS activities, stressing that these would add to an enriching college experience.

Each semester at the Induction Ceremony, NSCS introduces its Distinguished Members. This semester, the chapter officers decided to give this honor to the faculty who offer their time, energy, and assistance to the student body in general and specifically to those honors student who participate in research programs. They conduct workshops each semester to develop students' research and presentation capabilities. These professors, Prof. Jody Rosen (English), Prof. Laureen Park (Social Sciences), Prof. Maura A. Smale (Library), Prof. Justin Davis (Humanities), and Prof. A. E. Dreyfuss, spend hours of their time serving others, and this is a small token of our gratitude towards them.

The audience had the pleasure of listening to Student Government Vice President Kevin Valencia provide a song dedication, which was followed by three new inductees sharing their Journey to Scholarship. Such stories were varied, including a Radiologic Technology and Medical Imaging student who has returned to school after many years, an international student from the Dominican Republic whose vacation in New York led to her discovering a new home, and a Nursing student who has returned to school after a brief hiatus. All of these students share the underlying desire to succeed, excel, and give back to their communities.

In the final portion of the NSCS Induction Convocation Ceremony, new inductees were called on stage and given their NSCS pins as well as flower pens. After returning to their seats, the president of the City Tech Chapter of NSCS, Tamrah Cunningham, led the new inductees, officers and other members in reciting the Oath of Membership.

At the close of the ceremony, new members were called upon to participate in joining another academic community, that of published scholars. As the inaugural issue of Scholars: An Honors Scholars Program Sporadical was distributed, the achievement and accomplishments of students in the Honors Scholars Program reached an ever-wider audience, taking as its inspiration the innovation and creativity of the students.

Honors Scholars Orientation

Tamrah Cunningham

It's about that time again: when the Honors Scholars Program welcomes new students into its folds. In the beginning of every semester, an orientation, hosted by the Honors Scholars Program Director Professor Janet Liou-Mark and the Coordinator Laura Yuen-Lau, is held to introduce new members to what the Honors Scholars is all about. This semester, the program welcomed 81 new students. It is also a time to welcome back returning members and introduce them to what is happening this semester as well. Since this time the orientation fell on Valentine's Day, students were gifted with a sweet treat along with their information folder to celebrate the holiday.

During the orientation, students are given a brief introduction on what the program is about. Students are given the opportunity to work with faculty mentors on research topics that interest them. At the end of the

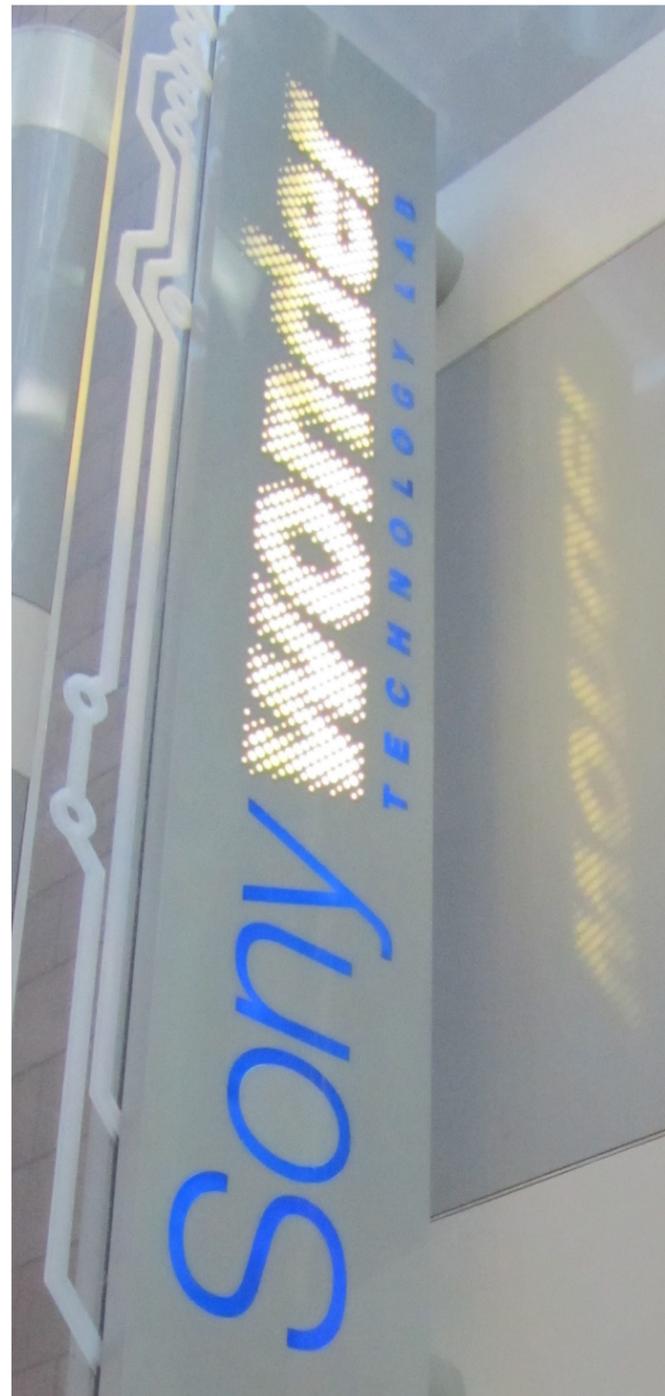
semester, students are to present their work at a two-day poster presentation session. By completing the poster and attending all the workshops that are geared to help students better their research and presentation skills, students are rewarded with Honors credit on their transcript. But there is more to the Honors Scholars Program than just academics.

Every semester, there are a handful of trips that the students are welcomed to join and have fun. There are a variety of trips available from the Museum of American Finance to Theodore Roosevelt's Birthplace. Not only that, this semester, there is a trip to Scranton, Pennsylvania at the end of the semester. There are plenty of chances to have fun and get to know other students in the program.

The Honors Scholars Program is an unforgettable experience that is, without a doubt, a chance that you don't want to miss.

MORE THAN A GAME

Tamrah Cunningham



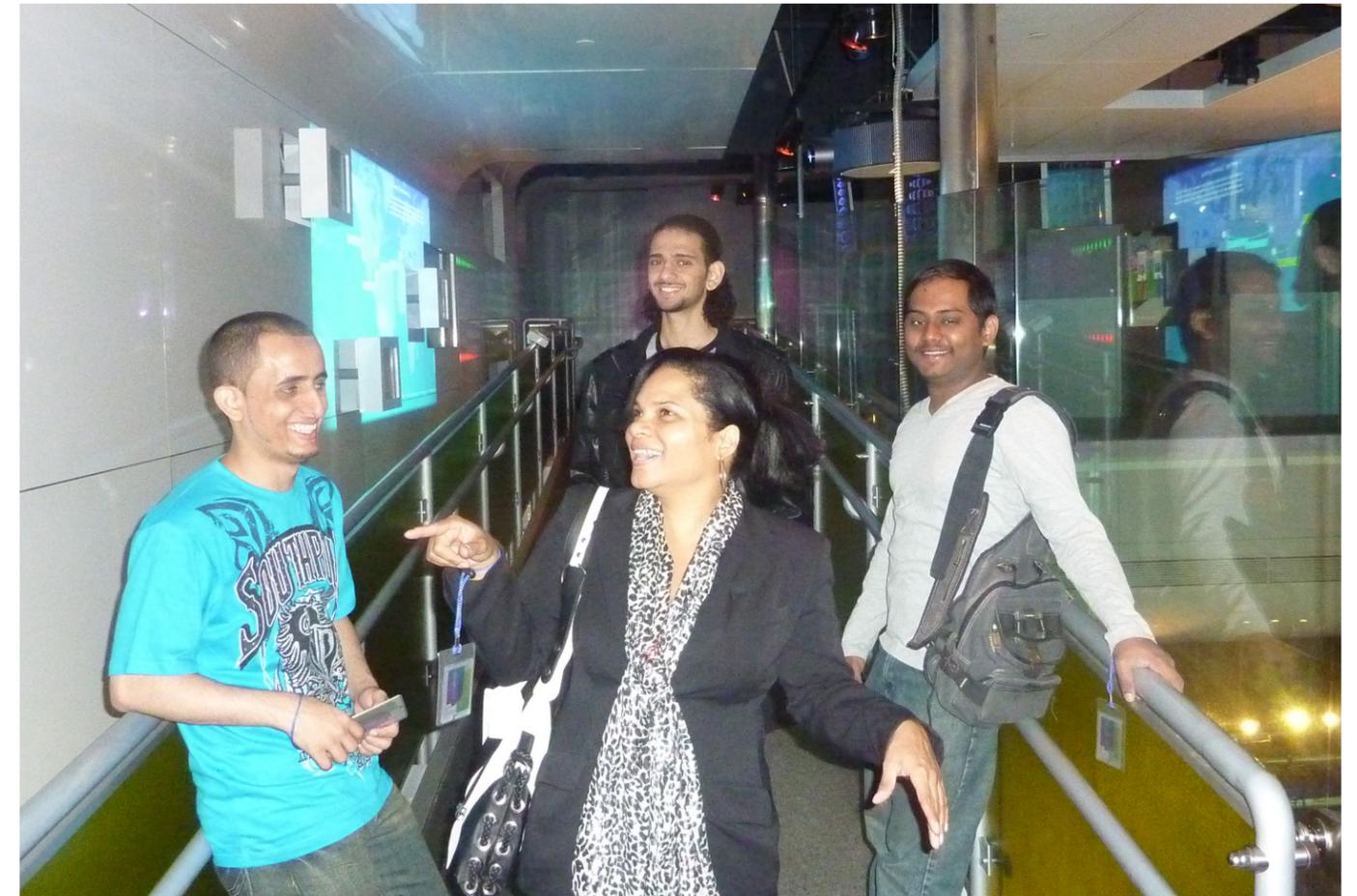
Technology can be such a wonderful tool. Constantly changing and evolving, it gives people the ability to experience things that were once considered to be a dream. And, on September 25, 2012, Honors Scholars Program members were able to embark on a journey through the technological paradise known as the Sony Wonder Technology Lab in Manhattan.

When you first enter, you are led to a computer station to create a profile for yourself. By entering your name, favorite color and music, even your voice, you can use your profile to activate the many exhibits and record what you did during your time at the Wonder Lab. Once you log in to the system, you are given access to an inside look into technology you will probably have never experienced before.

When you enter the lab, you are allowed to explore to your heart's content, and there are plenty of exhibits showing various branches of interactive technology. As you walk down the ramp, you can view some of Sony's products in 3D floating in mid-air that dissolves to show the inside when touched. There are also a few stations that, when activated by your card, allow you to customize your image using various photo editing tools. When you finished, you can send your image to one of the large monitors around the lab so that others may view what you did. Going further down the lab allows guests to view the timeline of the advancement of technology from the very first phone and television to the latest in game hardware and medical technology. Past this exhibit is where it gets really interesting.

Ever wondered what it would be like to be a surgeon? Well, one station allows guests to experience heart surgery, not only the process, but the sensations as well. Using haptic technology, guests can use a joystick to experience the sensation of using various medical instruments such as a saw to cut through the body cavity, a pump to insert into a heart, even the feeling of stitching up the body to complete open heart surgery.

Near the virtual surgery station is the Robot Zone where guests program mobile robots by setting up conditions



“ The overwhelming content available in this lab shows the ever-expanding world of technology. ”

using sensors. The robots, based on their programming, could move away when they near another robot or turn a certain way when they sense a certain color. You can even set up conditions that allow the robots to work together to accomplish a goal.

Lower in the lab are exhibits that vary from working together with a group of people to host your own news report to an animation studio that walks the user through the steps to create his or her own animated story. A dance motion capture studio enables users to choose their own avatar and dance to the music. Once finished, you can watch your avatar mimic your moves for the entertainment of those around you. Also on this floor, the Sony High Definition Theater plays 30-minute short films in high resolution.

Finally, on the last floor, the video game exhibit, the heart of Sony's PlayStation 3 games, shows the progression of video games over the years and gives participants the chance to create a personal racing track for a driving game. Also, a movie maker walks you through the process of film editing and a music mixing for the chance to edit a part of a song using various musical instruments.

There was so much to explore and so little time. The overwhelming content available in this lab shows the ever-expanding world of technology, and it was exhilarating to walk through the many exhibits to experience everything. Not only was it fun, but it was a great learning experience for all that attended.



at speeds near the speed of light. This created radiation and the researchers' goals are to find ways of reducing radiation while still getting the same if not stronger energy from the electrons. Our tour guide believed that it was possible to receive more detailed x-rays with less radiation escaping the machine by having a single lens to focus the energy. This allows for a better result with less risk. For those still not clear, imagine a bonfire; now, this bonfire allows for one to use heat, but the fire is wild and uncontrollable. It could cause harm, but if a person used another device that allowed for more focus and control, like a blowtorch, and then there would be less risk involved. Having toured and been briefed on the different jobs held in the building, it became more clear that their goals were not astronomically far from any of ours. This became a heavy focus in the next tour.

opportunities now, especially for minorities, and we can't let them pass by. Our tour guide even stated that one could get paid to go to graduate school if you are in a science, technology, engineering, or mathematics (STEM) field. After the talk, we toured the rest of the building watching scientist at work. One particular moment of interest was an airtight sealed room in which scientists coated objects in metal. The reason the room was airtight was to prevent dust from interfering with any activities. After the tour was over, we had a lunch break before the final building.

The tour of the second building began with our tour guide introducing himself and asking us about our majors and future plans. He explained how he got into the management position and used that as a base for his main point. When he was young, he saved one thousand dollars of his hard-earned money on a front bumper for his car, and, when he drove to his girlfriend's house, a car accident destroyed the bumper. That money could have been invested in stocks and used for the future, but, instead, he lived in the moment. The message of the story was that anything can be taken away in a second

The third building was mostly a wrap-up of what our group had learned in the previous buildings. The tour guide talked about the ring facility we had visited earlier and showed us a model for a new ring building which would cost close to a billion dollars. The last room we visited was the room of operations, and it looked like any control room you would see in the movies: flat-screen television monitors above two computer monitors for each station, and everything together forming a circle around the supervisors in the middle. It would have been better to see the room in action, but our tour guide stated that they had already finished operations for the year. Overall, the trip was a spectacular look at the laboratory, but it felt rushed and left the feeling that the full scope of the grounds were unexplored. The bus drive throughout the grounds displayed multiple buildings which probably

FOCUSED ON THE FUTURE

The Brookhaven National Laboratory

Walter Rada

Each and every day, technology is becoming more advanced. Take your phone as an example; that tiny device is more powerful than computers were over a decade ago. Most people think of technology and the science behind it as a complex field made only for the wise, but the trip to Brookhaven National Laboratory proved that anyone is capable of learning and more

importantly contributing to those fields. The trip was held on November 30, 2012 and took visitors on tours of three buildings in Brookhaven. Each building had separate tour guides, each explaining his or her line of work.

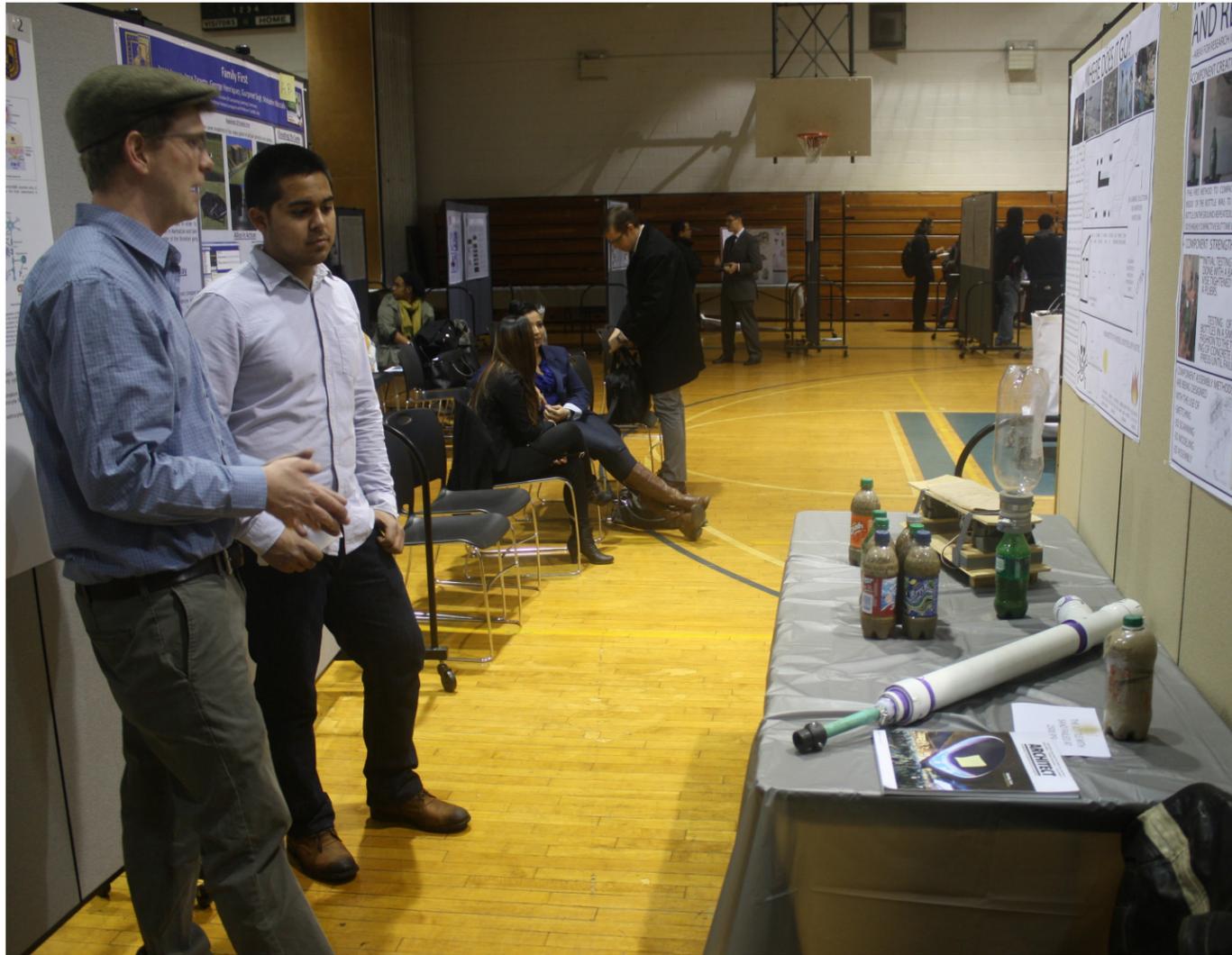
The first building turned out to be a giant ring. The purpose of the building was to shoot electrons in a loop

[T]he trip to Brookhaven National Laboratory proved that anyone is capable of learning and, more importantly, contributing to those fields [technology and science].

and that we shouldn't just live day to day. Our education is our safety net, our unique holding ground and, if we focus on it now, our future can be secure. There are more

weren't even mentioned by any of the tour guides. Hopefully, they can have maps ready next year and let us choose which buildings we want to visit in future tours.

How to Prepare for Tomorrow Today



UNDERGRADUATE RESEARCH OPPORTUNITIES

RUCHOMA A. KAGANOFF AND WALTER RADA

An integral part of undergraduate students' education is preparation for graduate school. Starting from their freshmen year in college, students look for ways to enrich their curriculum to enhance their graduate school application prospects. Even as they maintain stellar grade point averages, they secure internships in their fields, establish relationships with faculty for recommendations, and try to get involved in student activities.

However, many students may be wondering what more they can be doing to enhance their undergraduate experience at New York City College of Technology (City Tech) and increase their chances of getting into the graduate school of their choice. Some have heard that undergraduate research is a good way to set them apart but do not know of opportunities. Many students do not even realize that there are research opportunities available at their own college. While there are signs advertising these opportunities, even the most determined student might have difficulty figuring out how to apply for these opportunities.

There are also students who may not realize the benefits of undergraduate research. They may feel that, in their field, there are no opportunities for research or that such opportunities would be of little benefit to them in the long run. They may be involved in fields that do not require education past the baccalaureate or even associate's level, as these are not focused on research in general. They may be in a very clinical or technical field and may not realize that even these fields have room for research.

One of the most well-known programs which undergraduate students can apply for is the CUNY Summer Undergraduate Research Program (C-SURP). Held in various CUNY research centers during the summer for ten weeks from June through August, this program is a great opportunity for those who would like to travel out of

state and get research done, but one must be entirely devoted to the project. Accepted students, who will have their transportation expenses covered,

An integral part of undergraduate students' education is preparation for graduate school.

will work under a faculty mentor and attend workshops and weekly seminars. They could also meet other students engaging in research. After the research is complete, the students will present their results to faculty and administrators in a poster session.

Because there are so many misconceptions regarding undergraduate research, City Tech holds a Research Mixer towards the end of each semester. The event is held in conjunction with the Honors and Emerging Scholars Poster Session, wherein students who are involved

in these two programs present their research accomplishments for the semester. The Mixer is an opportunity for students to find out about undergraduate research at New York City College of Technology. Students have the chance to see the research that their fellow students have been involved in over the past semester as well as to meet with some of the faculty who are interested in mentoring students through the research process.

One such mixer featuring poster presentations was held in the Kiltgord gym on Wednesday, December 5th and Thursday, December 6th. Amidst these presentations, the research mixer, called Wandering Scholars, highlighted faculty introductions and brief summaries of their research interests. After students had the opportunity to hear from these potential mentors, it was now their chance to introduce themselves and try to find mentors for the upcoming semester. Students formed groups around faculty whose research interests matched their interests and discussed projects for the upcoming semester. Contact information was exchanged and plans were set in to the motion to start projects at the beginning of the next semester. One would normally have to talk to professors about research on one's own time after the workshop, but the mixer had a dedicated period for professors, willing and ready, to answer any and all questions. The research mixer held every opportunity possible for research as well as for internships.

KNOWLEDGE IS POWER. ETHICS IS PRUDENCE.

KHOREECE H. MENDOZA

Professor Nada Gilgorav's Ethics in Science workshop is an exploration into theoretical and applied ethics. It focuses on educating students about the various schools of ethical thought and reasoning as well as debating real-life ethical scenarios in search of a moral consensus. It's a ten-hour workshop evenly divided into two comprehensive sessions. The first session introduces the fathers of ethical thought: Hobbes, Rousseau, Kant, and Bentham, and their various individual philosophies: Social Contract Theory, Deontology, and Utilitarianism. The second session delves into the research ethics of intellectual property and patents, as well as the ethics regarding authorship, mentorship, and peer review. Workshop attendees are also acquainted with the Nuremberg and Helinski codes and other guidelines for modern ethics. In both sessions, attendees are exposed to various ethical scenarios and then surveyed for their own moral assertions regarding the outcomes. The result is a dialogue that engages contrasting points of view and deals with concepts such as autonomy, coercion, and property. Of particular interest were the cases of the Jewish Chronic Disease Hospital and the Havasupai Tribe.

The Jewish Chronic Disease Hospital case was adjudged by consensus to be an example of ethical malpractice. Workshop attendants felt strongly that the research findings did not excuse the means used to achieve them. In 1963, transplantation rejection studies took place at the Jewish Chronic

Disease Hospital in Brooklyn. Patients who were hospitalized for chronic diseases were used as test subjects for the rejection of live cancer cells. The researchers claimed that the patients gave undocumented oral consent, assuming that was adequate enough to proceed, since, at the time, no documentation was required for medical tests that were much more dangerous. Also the researchers never informed the patients they would be injected with cancer cells because they felt it would unduly ward off volunteers. The researchers had well-informed reason to believe that the cancer cells would be rejected and would not cause any harm to the patients, and they were correct. However, this did nothing to morally justify the undertaking in the eyes of the subsequent workshop jury. It was agreed that the researchers were wholly unethical in their strategic misinforming and that the medical norms of the 1960s did not excuse their participation in the study without documented consent.

The Havasupai Tribe case produced ethical stances that were much more divided. In fact, I would venture to say there was no general consensus at all among workshop attendees. In 1989, the Havasupai tribe, native to the Grand Canyon, gave consent to Arizona State University researchers to extract samples of their blood in an effort to find a cause for their commonly elevated diabetes rates. The 1991 results of the study were genetically inconclusive; there was no observed tie

between their cultural origins and the prevalence of the disease. However, diabetes research was only one point of interest, among others, about which the researchers were not particularly forthright. After 1991, over a decade of further research was conducted using the blood samples from the tribe, with conclusions of tribal inbreeding and schizophrenia as well as misplaced origins. Evidence was provided to suggest that the tribe was actually of Asian descent, a devastating find to a people with great cultural and ancestral pride. A lawsuit resulted in a cash settlement for the tribe as well as a ceremony in which the sampled blood was to be returned to each of the individual volunteers. Some workshop attendees asserted that, because the scope of the research was documented and informative, in the sense that diabetes would not be the only point of interest, the Arizona State University researchers were not to be faulted for their findings. One attendee even questioned the stance of the Havasupai against the ASU researchers, questioning whether they were actually against additional research being done or just being sensitive to what was discovered. Others affirmed that, because the researchers' proposal had emphasized the study of diabetes but, in practice, the researchers had put much more time and effort elsewhere, they were intentionally dishonest and therefore unethical.

However, medical ethics has come quite far since the 60s, and even the

90s. Modern US standards simply would not allow research like the aforementioned to occur. This is not to imply, however, that the idea of unethical research is somehow outdated. It remains a contentious issue, and one that very well could be faced by CUNY students now. Psych majors in particular will more often than not find themselves volunteering for human research studies during their academic careers. In fact, Hunter College, CUNY, hosts faculty-run research labs every year and strongly encourages student participation. This, of course, offers a wide range of benefits, including hands-on experience, special program opportunities, and the ability to network with a faculty marked by prestigious affiliation. It has even become commonplace to offer college credits for research volunteers. Students should be mindful, however, that these are precisely the exercises wherein one is susceptible to the unethical use of data in many forms: falsification, fabrication, and breach of privacy, to name a few. Plagiarism is perhaps the most common instance of unethical research for a university student and, despite its lack of physical invasion, is no less serious an offense. Scientists and doctors constantly read scientific journals and reports produced by such research to stay informed on the most recent findings; thus, plagiarized results could directly induce misinformed action in the field. Even if one were fortunate enough to avoid unethical research altogether, there is no harm in being aware of the various ways in which it comes about. Professor Gilgorav's workshop effectively sheds light on such issues and evokes a sharpened sense of discernment in dealing with them.

It [unethical research] remains a prominent issue and one that very well could be faced by City Tech students in their academic careers.



City Tech's OpenLab, our open source digital platform for students, faculty, and staff, is looking for enthusiastic bloggers to join our Student Community Team in Fall 2013.

Go to openlab.citytech.cuny.edu for details or contact us at openlab@citytech.cuny.edu.



WANTS YOU!

KHOREECE H. MENDOZA

The intersection of 112th and Broadway is home to Tom's Restaurant, a landmark for the neighborhood of Morningside Heights and immediately recognizable as "Monk's Café" by fans of NBC's 90s sitcom *Seinfeld*. Avid music fans may even recognize Tom's Restaurant as the scene of "Tom's Diner," a song by Suzanne Vega made widely popular by a dance remix in the 90s. But perched quietly above Tom's, unbeknownst to most, is the NASA Goddard Institute for Space Studies (GISS). A laboratory for the Earth Sciences Division of NASA's Goddard Space Flight Center, it's the center of climate change research in New York City. CUNY City Tech's trip to the institute was exciting and informative; the audience received a ton of information on the current state of climate, as well as NASA's future plans and forecasts. However, the biggest takeaway from the speakers at NASA GISS was the fact that becoming part of their research wasn't out of reach for anyone in the audience.

Alyssa Taylor, a high school senior at the Urban Assembly Institute of Math and Sciences for Young Women, opened the presentation speaking about her ongoing involvement with NASA. It started early on in elementary school where she admits to struggling with math. Taylor says it was realizing the wide range of practical applications in mathematics that drove her to appreciate and excel, and to much avail. On track to be part of the first graduating class of her high school, she's already had the opportunity to intern at CUNY Hostos through NASA GISS. Taylor said that some of the most exciting and rewarding parts of her work were using matrix functions for the compression,

image processing, and color reproduction of large space photographs. She is finishing her senior year with early college admissions already under her belt, and currently speaks on behalf of NASA GISS to other young ambitious students. Taylor bridges the seemingly large gap between NASA and her contemporaries.

Erik Noble is a postdoctoral assistant scientist who found NASA during graduate school. Born a twin to a Native American mom, Noble wanted to be a pilot growing up. However, a Midwest tornado hitting his high school sparked his curiosity for weather studies. On a tour of Penn State's campus, he submitted an application for their meteorology program. Detailing the inclement experience of his past and showing avid interest and ambition, Noble received a full scholarship and accepted it even after having been accepted to the Air Force Academy. With summer approaching at the university, a professor urged him to seek employment with the National Center for Atmospheric Research (NCAR). This granted him various summer jobs and travel opportunities, including a global climate presentation in South Korea which he says was pivotal for him. Ultimately, it led him to the studies he does with NASA GISS now. Noble's presentation was brief but widely comprehensive, showing observations of sea ice melting, global sea surface temperatures, European heat waves, and some unusual hurricanes on the West African coastline; these were unusual because some of the biggest droughts in history have occurred there. He also touched upon the macroclimate patterns for El Niño and La Niña as well as recent volcanic activity and paroxysms. But what Noble stressed most was the

abundance of research opportunities available for those looking. And, if his letter to Penn State is any indication, presenting an interest and a willingness to work early on is the key to getting them.

Ronald Miller is a Ph.D. graduate of the Massachusetts Institute of Technology, an applied mathematics and physics adjunct professor at Columbia University, and an atmospheric and climate dynamics scientist with NASA GISS for over a decade. Miller opened his presentation remarking on the changes in the global surface air temperature. With an estimated increase of only 5 degrees over a century, he asked us to consider whether or not such a change should even be of concern. Miller explained how rising carbon dioxide levels relate directly to global warming, and the impact humanity is having on these levels' acceleration. Miller also informed us about his studies on sulfate aerosols and how they could be used to combat these levels.

increased vulnerability to storms like Hurricane Sandy, particularly in coastal areas like Ossining, Rockaway, and Battery Park. He showed us the dangers in our tendencies to ignore macroclimate changes, and reinforced their potential for immediate consequences.

Again, none of the positions held by Taylor, Noble, or Miller is inaccessible. Whether you're a high school senior, a postdoctoral college grad, a Ph.D. scientist, or something else, there's a place for you at NASA if you're interested and willing to work. Their NYC Research Initiative program caters specifically to colleges specializing in sciences and technology. Students are given one-on-one attention with a scientist for 6-8 weeks, with a \$4,000 stipend, and the opportunity to attend presentations each week with 400 other NASA, NSF, and NOAA researchers. The LARSS program is a ten-week mentored summer research project much like the NYC Research initiative, but with slightly higher

[T]he biggest takeaway from the speakers at NASA GISS was the fact that becoming part of their research wasn't out of reach for anyone in the audience.

Essentially, layers of bright sulfate in the atmosphere mask the dark surface of the ocean. Thus, more light rays are reflected than absorbed, promoting general planet cooling. He noted, however, that the solution is by no means a cure-all; sulfate aerosols only last about a week in the atmosphere and get washed out by rain, whereas carbon dioxide can linger for upwards of 50 years—not to mention the asthma and other health risks involved with sulfates in the air. He reassured us that working towards decreasing our carbon dioxide emissions, rather than trying to stultify their effects, is greener and much more efficient. Miller went on to address his opening rhetorical question: the reason why a change of 5° over the course of 100 years should be alarming is that, while we urbanites may not feel much of a difference, our ecosystem does. He shows us pictures of changes in ice caps and bodies of land formerly frozen. Miller explained that melting glaciers promote tectonic sinking and rising sea levels lead to

stipends (\$4,500-\$5,000) and exclusive offerings to undergrad juniors, seniors, and first-year grads. The MUST and NESSF programs grant yearly science and technology scholarships (\$10,000-\$30,000) for undergrads and grads, and the Opportunities for Enhancing Diversity in the Geosciences (OEDG) is, ironically, not yet diverse. Dr. Frank Scalzo revealed that 65% of NASA's current workforce is eligible for retirement; they are eagerly searching for young minds to be the leaders of tomorrow. Scalzo even entertained the elementary students in the audience, ensuring them that, if NASA is something they're interested in, the staff is motivated to get them involved. There is no shortage of opportunity available for anyone. To echo the words of Mr. Noble: "The research world wants you!"

For all aforementioned research opportunities and programs, submit an OSSI application at <https://intern.nasa.gov>.

WHAT IS OPENLAB?

The **OpenLab** is an open digital platform for learning and collaborating, created by City Tech students, faculty, and staff. Anyone at City Tech can join the OpenLab.

The **OpenLab** allows its members to share their work with one another and with the world beyond City Tech. Over 6000 people are already using the OpenLab for their courses, projects, clubs, and portfolios.

The **OpenLab** is a key part of the U.S. Department of Education Title V grant-funded project, "A Living Laboratory: Revitalizing General Education for a 21st-Century College of Technology."

GET STARTED!

Have a look around the OpenLab and sign up today:
openlab.citytech.cuny.edu

GET INFORMED!

COME TO OUR OPENLAB STUDENT EVENT

OPENLAB SHOWCASE What are others doing there?
How can you do it, too?

Thursday, May 2, 1:00pm - 2:15pm | Rm G604

GET INVOLVED!

We are looking for enthusiastic bloggers to join our Student Community Team in Fall 2013.

GIVE BACK!

Help us make the OpenLab better! Let us know your ideas, complaints, and suggestions.



Contact our friendly Community Team at
OpenLab@citytech.cuny.edu



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