



*Connecting today's women to tomorrow's opportunities*

## Murray Center Calendar

December 27, Winter Session Begins

January 12, Winter Session Ends

January 16, Martin Luther King Day (national holiday)

January 17, Spring Semester Begins



The Murray Center wishes everyone a festive and restful break! See you all in January.

Where does the time go? It's been such a busy semester for us, and perhaps for you as well--the last few week especially, as we ran around frantically preparing for the "holidays," ostensibly a time of rest. (Not!) And before you know it, we'll be back at it again, running as fast as we can on the "treadmill to oblivion."

As Dr. Jon Kabat-Zinn gently reminds us, however, "Wherever you go, there you are." Amidst our frenetic activity, checking our watches and our Blackberries iPhones every minute, always in a hurry to get somewhere, it is useful to pause and remember that here is where we always are--here and now. The Wonderful Life we yearn for is the one we already have.

So during The Break, take a break. Enjoy! See you next year.

*Nancy*



Dr. Nancy Steffen-Fluhr,  
Director

## Murray Center Media Picks

Meet Ursula Burns. Raised by a single mom in public housing, this math geek/mechanical engineer is now the CEO of Xerox and ranked "[14th most powerful woman in the world](#)" by Forbes.

Huffington Post re-posts. Sheryl Sandberg's TED address along with an end-of-year essay from Facebook's CEO, one of the "[50 Most Powerful Women in Business](#)" (*Fortune*).

The Entrepreneurs, The Advocates, The Gamers, The Media, The Brainiacs, The Executives -- FAST COMPANY picks 2011's [30 Most Influential Women in Technology](#).

Lisa Hook, CEO of Neustar, addresses congresswomen at a recent Capitol Hill event about the [need for more STEM graduates](#), advocating for more STEM-based education for women

A recent Bayer Foundation report, Facts of Science XV, asks: [Why aren't more women graduating with STEM degrees, especially since, according to faculty at top US research universities, U.S. female students enter college most prepared for STEM studies?](#)

Champions of Change: Girls and Women in STEM - A recent (12/9/11) White House event honored 12 individuals for their efforts to recruit and retain girls and women in science, technology, engineering and mathematics. Meet the honorees and watch the actual event [here](#).

## Interview with Dr. Zoi-heleni (Eliza) Michalopoulou

Two of the scariest words in an NJIT student's lexicon just might be "Math Common," but for Dr. Zoi-heleni (Eliza) Michalopoulou, mathematics is a life-long passion that is reflected in the enthusiasm she brings to her lectures and her research. She currently serves as Associate Chair for Undergraduate Studies in the Department of Mathematical Sciences and in 2008 was named an NJIT Master Teacher.

**MC:** Were you always intrigued by numbers?  
**EM:** At school, I loved learning about the classics (lots of *Iliad* and *Odyssey* readings in my education...). In my language arts assignments though, there was no right answer. I was asked to critique writings and write my own essays. The fact that I could approach the assignments in many different ways took me out of my comfort zone. I enjoyed math, because I saw math problems as games and puzzles. I felt gratified to come up with the "right" solution.

**MC:** Were you encouraged to pursue studies in mathematics?

**EM:** I had been often told that girls are not good in math and science. That made me determined to pursue a career in these fields. I specifically selected Electrical Engineering because that was considered the most challenging major in my country, Greece. I eventually decided to pursue graduate studies at Duke University, and for my doctorate, I worked in a heavily mathematical area of Electrical Engineering, which has a significant overlap with Applied Mathematics. That made the Department of Mathematical Sciences at NJIT a great match for my interests.

**MC:** Why are so many students intimidated by mathematics? And what about the concept of 'female math anxiety'?

**EM:** Math anxiety is cultivated early on in a student's education. As a mom, I attended several meetings at my daughter's school. Parents of second graders would state that they felt powerless helping their children with their math homework. When our elementary school children hear us, their role models at that age, stating that we struggle with math, they feel justified to be and remain frustrated with math. If we, as society, develop programs for educating parents on how they should approach their children's math learning, I predict that attitude towards math will change.

Female math anxiety? I don't see it now among high school girls like my daughter. She and her friends are taking algebra, which they find challenging. They worry about tests, but it is one class among many others, and they actually enjoy it quite a bit. At least two of her closest friends want to pursue careers in math and engineering; my daughter is considering a career in forensic biology (thanks to *CSI* and *Bones*...) All three of them were members of the Science Olympiad team of their middle school. I predict that we will be seeing more young women in STEM careers in the near future.



Dr. Zoi-heleni (Eliza)  
Michalopoulou

## Catch Up On Our Past E-Newsletters!

[April 2011](#)

[May 2011](#)

[Summer 2011](#)

[Fall 2011](#)

[October 2011](#)

[November 2011](#)

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**MC:** You mention role models -- male scientists and mathematicians are revered throughout history, while most often their female counterparts are just footnotes. **EM:** There are some highly enlightened women mathematicians in our past and present, but because of their small numbers, they often get forgotten and bypassed. There is an essay contest sponsored by AWM (Association of Women in Mathematics) on Biographies of Contemporary Women in Mathematics open to middle schoolers. Such initiatives will certainly bring the achievements of these remarkable women into light. We will all benefit from that, and by seeing our science workforce expanding to include more talented and poised young women.

## Recent Events



**December 3** - Members of SWE, the Muslim Students Association, and Highlander for Humanities partnered to volunteer at the soup kitchen at Covenant House on Washington Street. Covenant House provides shelter and support service for over 100 of Newark's homeless young men and women.

**December 5** - Thirty-two junior and senior faculty members attended a reception launching the NJIT Advance 2012 Faculty Career Advancement Pilot Program. Co-hosted by ADVANCE and Provost Ian Gately, the event introduced mentees to their new mentors and provided guidelines about how to get the most out of the mentoring experience.

**December 6** - The Murray Center hosted a SWE Professional Development Webinar "Overcoming the Imposter Syndrome" presented by Dr. Valerie Young. This is the second webinar hosted this semester by the Center.

**December 13** - To help students cope with the pressure of studying for final exams, the Murray Center, Murray Center Ambassadors and SWE hosted a Stress Relief Day. Foot and chair massages were offered to women students, faculty and staff. And there was a special perk for first year women students -- a "move to the front of the line" pass!



**Dr. Valerie Young**

Also on December 13, the Murray Center office staff and Ambassadors had their annual end-of-semester luncheon. Good food, good conversation and great company! Plus a surprise from our director, Nancy Steffen-Fluhr -- thanks to Dr. Nancy the Murray Center has a large format, flat screen television. In addition to the many services the Center provides for NJIT women students, staff and faculty, look for upcoming screenings of new and classic films.



And over the past several weeks SWE members have been collecting cash donations, donations of canned goods and gently used warm winter clothing. On December 15th SWE members Marina St. Val, Yvesna Blaise, Snehal Patel and Frandy Dort brought cases of canned goods to the soup kitchen at St. James AME Church. And for fans of the Food Network's Restaurant Impossible, check out upcoming air date for the episode where Chef Robert Irvine and his crew take on a 2-day renovation of the facility. More information [here](#).

# NJIT Women to Watch

Meet Marisol Reyes, NJIT '11

Like so many of her peers, Marisol Reyes thought she had her future all planned out. After four years of caffeine-fueled, sleepless nights, research projects and final exams, she was ready to graduate with a BS in Industrial Management and begin graduate school here at NJIT. However, an email changed all that.



Marisol Reyes, NJIT '11

"Days before obtaining my degree, I received information from the Murray Center for Women in Technology about a job opportunity," Marisol says. "Although I was not looking for a job at the time, I almost instantly sent in my resume. That same day I was called for a phone interview which led to an in-person interview that same week. Within a few days, I received the news: I had gotten the job! I was now the Assistant Engineering Manager at Bogue Systems, Inc. in Paterson, N.J."

Marisol counsels incoming and current students to take advantage of the many resources that NJIT offers beyond the classroom.

"Students should know that the Murray Center for Women in Technology is not just an office at NJIT. It can be just as valuable to your success at NJIT as the library or even your course textbooks," Marisol advises. "For me, personally, the Murray Center helped me get through college and even obtain my current position; for that The Murray Center for Women in Technology will always have a special place in my life."

## Scholarships, Research Experiences for Undergraduates (REU) and Graduate Fellowships

SWE offers a wide range of scholarship opportunities for undergraduates and graduate students and many professional SWE sections have individual scholarship programs. Important note: rather than compete for specific scholarships, applicants complete one application and are considered for all the scholarships for which they are eligible. More information [here](#).

Louis Stokes Alliance for Minority Participation (LSAMP) at Cornell University is accepting applications the 2012 Summer Undergraduate Research Program. More information [here](#).

The Quality of Life Technology Center, a partnership between the University of Pittsburgh and Carnegie Mellon University, offers summer research opportunities for undergraduates, including a special program for military veterans, in addition to graduate and postdoctoral fellowships. For more information:

- [Undergraduate](#)
- [Veterans' internship in research](#)
- [Masters fellowships](#)
- [Postdoctoral fellowships](#)

Louis Stokes Alliance for Minority Representation (LSAMP) at Rensselaer Polytechnic Institute is accepting applications for the Summer 2012 Undergraduate Research Program. More information [here](#).

The University of Maryland is accepting applications for a Summer 2012 REU program for research opportunities in miniature robotics at the Maryland Robotics Center. Participants will receive a \$5K stipend and funding is available for on-campus housing and travel support. More information [here](#).

NASA Space Technology Research Fellowships are offered to outstanding young researchers and technologists, early in their graduate studies, who are committed to developing innovative technologies for the aerospace sector and to being part of NASA's technological future by working on high-priority technologies to sustainably explore space. More information [here](#).

The SMART LIGHTING ENGINEERING RESEARCH CENTER (ERC) is accepting applications for a Summer 2012 10-week undergraduate research program. ERC is developing technologies to revolutionize lighting that provides energy conservation, human health and safety, and high speed information and access. Rensselaer Polytechnic Institute is the lead institution in partnership with Boston University and the University of New Mexico. More information [here](#).

University of California, Berkeley is looking for underrepresented minority and women undergraduates students who are interested in a 9-week research-intensive summer engineering program. [Details and application](#).

University of Maine's Forest Bioproducts Research Institute offers a 10 week REU program in research related to converting forest biomass into fuels, chemicals, and advanced materials in a sustainable manner. More information [here](#).

NJIT, Peter A. Cistaro '68 Family Scholarship is awarded to a full-time student at Newark College of Engineering, with a GPA of 3.0 or above. Applicants must demonstrate a need for financial assistance and preference is given to a student who is a member of a Roman Catholic parish in the Paterson Diocese. More information [here](#).