

## CSTEP Defined

The Collegiate Science and Technology Entry Program (CSTEP) provides support and encouragement to undergraduate and graduate students pursuing academic programs that will lead to professional licensure and/or a scientific, technical, business, education, or health-related career. CSTEP aims to increase the numbers of historically underrepresented graduates in math, science, and technology fields, as well as increasing the numbers of graduates pursuing post baccalaureate education.

## 21st Annual CSTEP Statewide Student Conference Dates

The conference dates for this spring, again being held at the Sagamore in Bolton Landing N.Y., will be April 12-14, 2013. If you are a CSTEP Scholar interested in presenting your research at this conference, let your CSTEP advisor know as soon as possible as limited spots are available. Preference will be given to those Scholars who have completed or are actively engaged in research. Review your research timeline with your mentor and have the conference date as a goal to be finished.



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## 4,000 Research Hours Completed 2011-2012

During the 2011-2012 academic year, 32 CSTEP Scholars completed research projects resulting in a total of 4,000 hours. The projects, most were in science and health-related fields, ranged from ecological studies such as “Predation Risk in the Selection of Habitat by Eastern Chipmunk (*tamias striatus*): An Optimal Foraging Approach” by Julibeth Saez mentored by Dr. Lucina Hernandez to biochemical studies such as “Proteomic Study of Ribosomal Proteins from *E. coli* and *S. cerevisiae*” by Yvaline Dorce mentored by Dr. Kestas Bendinskis. Research sites included SUNY Oswego, University of Columbia - New York, Case Western University – Ohio, and SUNY Oswego Global Laboratory locations: Federal University of Mato G do Sul - Brazil, Kolkata University – India, Federal University of Paraiba – Brazil, and National Central University – Taiwan.



May 2012 Graduating CSTEP Scholar: Ryan Navarro

## Shadowing in a Hospital, Clinic, or Practice

This fall, CSTEP initiated a new venture reaching out to local hospitals, clinics, and medical practices to allow Scholars the opportunity to spend a day in the life of the professional. In total, 9 scholars visited sites including pediatricians, Dr. Vilma Junio and Dr. Young Kim; family doctor, Dr. Esther Lubinga; surgeons, Dr. Allison Duggan and Dr. Felix Oben; and physical therapist, Dr. Robert Berkley. A special thank you to these doctors for welcoming CSTEP scholars and giving them the opportunity to explore the field while enhancing

their professional development. Sophomore CSTEP scholar, Christopher McMullen, who aspires to be a surgeon stated: “Through this experience I learned more of what a work day in the life of a surgeon is like, specifically in the Operating Room. I learned how to scrub in for surgery and properly sterilize. In addition, I learned that though the OR may look chaotic and is filled with many people, each person has a purpose and vital role from the anesthesiologist to the recovery nurse.”



Shadowing day 2012. Pre-health scholar: Vanessa Okafor, family doctor: Dr. Esther Lubinga, and pre-health scholar: Maame Hayfron

If you would like to host a CSTEP scholar for a job shadow or you have a contact to a site in the STEM or licensed profession fields, please contact Program Director, Dr. Cleane Medeiros at [cleane.medeiros@oswego.edu](mailto:cleane.medeiros@oswego.edu)

## Internships opening opportunities

Last academic year, 15 CSTEP Scholars completed internships totaling 1,860 hours. Internships give Scholars the opportunity to explore their field from a hands-on approach, encouraging their academic development toward a desired career. While some Scholars use the internship to build competitive graduate school applications others take the opportunity to enhance resumes for direct transition into the field after graduation. A special thanks to the intern placement sites: North Country Vet Clinic, Dominican Republic - Vet Clinic, Oswego Health Behavioral Services, Oswego Hospital, Lifestyles Center, HIV Clinic in Harlem - N.Y., Oswego County District Attorney (Pre-Law), Pathfinder Bank, Mrs. Rogers Neighborhood, Oswego High School Learning Center, Oswego Children's Project, Seneca Nursing Home, and St. Luke Nursing Homes.

## Hosting Le Moyne and OCC Liberty Partnership Program students

Liberty Partnerships Program (LPP) provides a broad range of supportive services which will enable at-risk and under performing students to graduate from high school and enter some form of postsecondary education and/or a career of choice. In summer 2012, CSTEP Staff at SUNY Oswego hosted 7 students from Le Moyne College and Onondaga Community College. The visit provided awareness of opportunities for underrepresented students, encouraged careers in STEM and licensed professions, and demonstrated how the students can take ownership of their goals. An interactive tour through all aspects of campus life provided the students a chance to feel, see, and hear what life as a college student is truly all about. The visiting students left energized and enlightened from the activities.



CSTEP scholars with Carlos Garcia from NYS Department of Education

## Students attend 20th Annual Statewide CSTEP Conference

With six scholars presenting, and nine attending their first professional conference, experiences were positive.

Among the approximate 500 students from CSTEP Programs across NYS, SUNY Oswego's program was well represented this past spring with 15 Scholars attending, 6 gave presentations: "Institutional Racism in the Education System: Its Effect on Underrepresented Students and Staff" by Barbara Ciceron; "Multiphase Analyses of Cepheid Variable Stars in the Magellanic Clouds" by Earl Bellinger; "Impact of Goose Feces on Phosphorous Levels in Glimmerglass Lagoon Oswego, NY" by Christine Cornish; "Proteomic Study of Ribosomal Proteins from E. coli and S. cerevisiae" by Yvaline Dorce; "Predation Risk in the Selection of Habitat by Eastern Chipmunk (Tamias stiautus): an Optimal Foraging Approach" by Julibeth Saez; and "Snow Tracking and GIS: Taking Advantage of New Technology to

"creating work like what was presented requires a lot of responsibility and determination"

Evaluate Habitat Selection in Coyotes in Rice Creek Field Station (RCFS)" by Cheryl Sandrow. The following quotes reflect what students said about the experience: "Going to Sagamore made me feel more aware, of what potentially can happen for me in the future and what steps are essential to get there. There was a lot of information and all of the presenters were willing to share and encourage. Thanks for taking me." --- "I love CSTEP. I learned a lot by getting connected to others and gained support that I probably would not have gotten from anywhere else." --- "My experience participating in the CSTEP Sagamore Conference 2012 was great. Going for the first time I benefited greatly from it and found that creating work like what was presented requires a lot of responsibility and determination. I would recommend more students go in the future."



Le Moyne and OCC Liberty Partnership Program students visiting SUNY Oswego



Oswego City School District students with SUNY Oswego student ambassadors and CSTEP staff

## Use of Nook device to strengthen graduate admissions exam preparation

Keeping with the goal of CSTEP, to encourage Scholars to move directly into a STEM, licensed, or health-related profession, or go to graduate school in one of these fields, Scholars are offered comprehensive graduate admissions testing preparation. This fall, Nooks will be implemented into the 6 session GRE preparation course happening each Sunday from September 23 – October 28. The Nooks will enhance the preparation by allowing participating Scholars to sign one out and use pre-loaded GRE preparation software that includes practice exams, questions, and helpful tips for how to best prepare for the actual exam. As a preliminary way to implement the Nooks into the CSTEP program, CSTEP seeks to expand the use to also cover other Graduate Admission Exam Preparation for MCAT, LSAT, and GMAT.

## Collaborative effort inspiring youth to STEM

On April 28, 2012 over 30 Oswego City School District students grades 5-8 participated in the “Planting Seeds: Growing Minds” Conference at Le Moyne College. Through invitation from SUNY Oswego’s CSTEP, Ms. Wendy Ballard (Leighton Teacher) and Ms. Catherine Celeste (OMS Teacher) encouraged students to attend and served as chaperones. SUNY Oswego CSTEP funded a bus for the event.

The conference provided Science, Technology, Engineering, and Mathematics (STEM)

career exploration activities and workshops from over 15 professional STEM company and industry representatives. This participation helped reach the mission of the event: to enhance youth awareness and knowledge about STEM and NYS licensed professions. College student ambassadors and representatives from each of the 8 CNY STEP/CSTEP institutions were present to speak with youth. In total over 200 CNY youth benefited from the event. In addition, SUNY Oswego CSTEP staff provided a large group presentation to 125 Oswego Middle

School students in fall 2011 offering information about STEM, licensed, and health-related professions. The talk gave encouragement while overviewing opportunities available to increase the students’ motivation to consider these fields. Overall, the two “day of service” events impacted 325 young people.

SUNY Oswego CSTEP is charged each year to promote STEM and Licensed Professions to local youth and looks forward to continuing work with the Oswego City School District and other CNY schools.

## CSTEP staff present at NYSSCA and SUNY ODEI

**Q: How do we continue to enhance the “pipeline” of underrepresented students in STEM and Licensed Professions?**

A: With support of CNY STEP/CSTEP institutions, SUNY Oswego spearheaded two presentations to spread awareness of the strength of the NYS STEP/CSTEP “pipeline.” Presenting “Strengthening the Pipeline for Historically Underrepresented and Economically Disadvantaged Students through STEP & CSTEP” at the NYS School Counselor Association Conference in October 2011, k-12 counselors were educated about programs and pathways to share with underrepresented students who are considering fields in

STEM, licensed and health professions. Presenting at the SUNY Office of Diversity, Equity and Inclusion (ODEI) conference in November 2011, constituents from across NYS and beyond gained information from the poster which depicted program overview, services, and overall impact of STEP/CSTEP programs. SUNY Oswego CSTEP believes these efforts of awareness and advocacy, from youth that we present to, to legislative and governments officials, support the continued growth and success of our CNY region STEP/CSTEP programs, but more importantly demonstrate the continued need for such programming in the years to come.



Volunteering: Dr. Shashi Kanbur of the physics department talks with youth about careers in STEM at the CSTEP “Planting Seeds: Growing Minds” Conference.



Scholars: Barbara Ciceron and Larissa Assam at statewide conference

## Academic and Professional Development

This fall CSTEP at SUNY Oswego offers it's scholars multiple opportunities throughout the semester to strengthen as a student in their academics, social and leadership skills!

- GRE PREP
- Professional Development Workshops
- Day of Service
- Job Shadowing
- Conference Prep and so much more!



Established in 1986 last year CSTEP celebrated 25 years in existence, preparing science, technology, and licensed professionals.

## Upcoming Events — Fall 2012 Workshops

SEPTEMBER 9TH 3PM-5PM LIBRARY INSTRUCTION ROOM 2	<b>WELCOME BACK!</b> Come enjoy snacks and fun with the CSTEP Community!
SEPTEMBER 17TH	<b>JOB SHADOWING DAY I</b> Health Professions
SEPTEMBER 26TH	<b>JOB SHADOWING DAY II</b> Locations Vary
SEPTEMBER 29TH 10AM-2PM	<b>Le Moyne College</b> Partnership with STEP/CSTEP
SEPTEMBER 30TH 3PM-4PM LIB. INST. RM 2	<b>How to Be Successful in your Summer Enrichment Program (REU)</b> Guest: Yvi Dorce, Mary Dacosta
OCTOBER 14TH 3PM-4PM LIB. INST. RM. 2	<b>CO-OP and Internship Opportunities</b> Guest: Sheila Cooley
OCTOBER 28TH 3PM-4PM LIB INST. RM. 2	<b>RESEARCH</b> Is it for me? What is Available? How to get started!
NOVEMBER 4TH 3PM-4PM LIB. INST. RM 2	<b>Understanding the cost of your education: Loans and Options</b> Guest: Sue Borden
NOVEMBER 11TH 3PM-4PM LIB. INST. RM 2	<b>Applications! Applications! REU, Internships, Community Service Opportunities</b>
DECEMBER 2ND 3PM-5PM LIB. INST. RM 2	<b>Semester Closing</b> Pizza Party & Program Evaluation

**JUNIORS AND SENIORS**  
**GRE PREP COURSE FALL 2012**  
 Sunday's from 4-6  
 Library Instruction Room #2  
 September 23rd, 30th  
 October 7th, 14th, 21st and 28th  
 If interested in this course please contact Grace at [gmaxon@oswego.edu](mailto:gmaxon@oswego.edu)  
by SEPTEMBER 14th!

**CSTEP CONNECTIONS**  
 Connection groups are welcome to meet Sundays at 7pm in Penfield Library.  
*Groups are created for the following:*  
 Health Connections  
 Psychology Connections

**CSTEP Staff**  
 Program Director:  
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 Program Assistant:  
 Ms. Grace Maxon

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