Welcome to the SUNY Undergraduate Research Conference (SURC)-East, hosted by Suffolk County Community College with major sponsorship provided by: Shwachman Diamond Project.
Welcome to SURC East 2017 at Suffolk County Community College
Health, Sports, and Education Center (HSEC)
Michael J. Grant Campus, Brentwood, New York
Friday, April 21, 2017

Registration – HSEC Foyer
Coffee & light refreshments served 8:00-11:00 am
8:00 - Noon

Oral Presentation/Performance Session I
See program for details and locations
9:15 am – 10:30 am

Poster Session I – HSEC Field house
10:00 am – 11:00 am

SUNY & Transfer/Graduate School & Career Fair – Brookhaven National Lab, Elsevier, & Long Island STEM HUB
HESC – Field house
10:45 am - 3:00 pm

Oral Presentation/Performance Session II
See program for details and locations
10:45 am – 12:00 pm

Post-Graduate Study & Career Workshop
“Brookhaven Lab - a DOE National Lab With Research Opportunities”
HSEC MD105 Lecture Hall
11:00 am – 12 noon

Luncheon – HSEC Auditorium
Noon - 1:45 pm

Welcoming Remarks
Dr. Shaun L. McKay – President, Suffolk County Community College
Keynote Address – HSEC
Keynote Speaker – Dr. Samuel Stanley, President of Stony Brook University

Transfer & Graduate School Workshop:
How to Get There from Here: An Insider’s Guide to Graduate School in Humanities, Social Sciences and STEM – HSEC MD 105 lecture Hall
2:00 – 3:00 pm

Oral Presentation/Performance Session III
See program for details and locations
1:45 pm – 3:00 pm

Poster Session II – HSEC Fieldhouse
1:30 pm - 2:30 pm

Presentation of Shwachman Diamond Foundation Research:
Johnson M. Liu, MD
Associate Professor, Pediatric Hematology & Oncology, The Karches Center for Oncology Research, The Feinstein Institute for Medical Research
HSEC MD 105 Lecture Hall
3:00 pm - 4:00 pm

Workshop - Elsevier - Leveraging Scopus to Support Undergraduate Research and Study
HSEC MD 105 Lecture Hall
4:00 pm – 5:00 pm
Directions:

Take the Long Island Expressway (I-495) to Exit 53 (Sagtikos Parkway/Wicks Road). Follow signs to Wicks Road. Go south 1/2 mile on Wicks Road to campus entrance on right.

The Grant Campus is served by the following Suffolk County Transit bus routes: S-33, S-41, 3A.
Map of SUNY Campuses

SUNY campuses are located across New York State in urban, suburban, and rural areas. From Long Island to Buffalo, from Plattsburgh to Binghamton and everywhere in-between you’ll find a SUNY campus.

Once you find a campus or campuses of interest, click on the campus name to visit a campus’s profile page and explore all that each campus offers.

* Empire State College has 35 locations throughout New York State.
April 21, 2017

Dear Students, Faculty and Friends,

Welcome to Suffolk County Community College! We are thrilled to be the host location for the 2017 SUNY Undergraduate Research Conference (SURC)-East. This is an amazing opportunity for our College and is the first time in the history of the event that a community college has been selected to serve as a host.

The Conference brings together undergraduate student researchers and faculty mentors from across the SUNY and CUNY systems for a full day of activities, including sessions devoted to student presentations (oral, performance, artistic displays, and poster); a luncheon keynote featuring Dr. Samuel Stanley from Stony Brook University; a SUNY Transfer and Graduate School Fair; and professional development workshops for students and faculty. This year, for the first time, the SUNY Undergraduate Research Conference is being held at two SUNY campuses, increasing the ability of all SUNY undergraduates to participate. We extend best wishes to our colleagues at SUNY Fredonia, host site for SURC-West.

I am grateful for the participation by students and their faculty mentors from across the state; I also appreciate the sponsorship support we have received from the Shwachman Diamond Project and Elsevier – SCOPUS. I know you will enjoy and be impressed by the wide range of scholarship on display. I applaud the conference organizers, the professionals representing numerous departments across Suffolk County Community College, and the volunteers who have made this day possible. I conclude with sincere thanks for the high quality educational opportunities our College provides to its students, our local and regional communities, and the broader SUNY system.

Sincerely,

Shaun L. McKay, Ed.D.
President

Shaun L. McKay, Ed.D.
President

Suffolk County Community College

sunysuffolk.edu
Dear Students, Faculty, and Friends,

It is my pleasure to welcome you to not just one but two days of the SUNY Undergraduate Research Conference—SURC East, brought to you by Suffolk County Community College and SURC West, at SUNY Fredonia.

A few years ago, we at SUNY identified what we think of as five “buckets” into which all of our work is organized: Access, Completion, Success, Inquiry, and Engagement. Our theory—and we’re convinced we’re right—is that as a public university system like SUNY drills down into these areas, expanding and enhancing each of them to new heights and depths, we will be able to meet society’s most complex needs and challenges, such as health care, the environment, energy, and public safety.

During the two days of this, the third annual SURC, we’re broadening our horizons in Inquiry through showcasing the research and creativity in which our undergraduate students are engaged. With more than 460,000 students enrolled each year, SUNY is creating the next generation of scientists, researchers, writers, performers, and teachers, and is also home to some of the greatest faculty and practitioners in the world today.

This two-day conference highlights exceptional academic work by students across disciplines and across our great SUNY system. I want to extend special thanks to Suffolk and Fredonia presidents, Dr. Shaun McKay and Dr. Ginny Horvath, for hosting these events, and to our renowned keynote speakers, Dr. Sam Stanley and Dr. Diane Pennica. Thanks, too, to the many organizers who will make these two days a success.

Best wishes to all of you—students, faculty, and friends—for an exciting two days at SUNY!

Sincerely,

Nancy L. Zimpher
Chancellor
Welcome to the SUNY Undergraduate Research Conference (SURC)-East, hosted by Suffolk County Community College with major sponsorship provided by:

Directions for Guest Wireless Access for SUNY SURC:

1. Open your device’s Wi-Fi connections and select the SUNY SURC network.

2. A webpage will launch requesting credentials. If the webpage does not open automatically, open a web browser on your device.

   **NOTE: Steps 3 and 4 are different based on whether you need to create an account or are returning to an account already created.**

3. To Create an Account:
   a. Click on the “Guest Access” link at the bottom of the page.
   b. Fill out the form and click the “Register” Button.
   c. Accept the terms and conditions and sign in.

4. To Login to an Account You Already Created:
   a. Enter the email address and password used when you created your account.
   b. Accept the term and conditions, and sign in.

and additional funding from:
Acknowledgements

**SURC East 2017 Sponsors**
- Suffolk County Community College President Shaun L. McKay
- Suffolk Community College Foundation
- Shwachman Diamond Project
- SUNY University Faculty Senate
- Elsevier

**Special Thanks**
- SUNY Chancellor Nancy Zimpher
- SUNY Provost and Executive Vice Chancellor Alexander Cartwright
- SUNY Assistant Provost for Undergraduate and STEM Education – Phil Ortiz
- Suffolk County Community College Vice President Suzanne Johnson
- SURC East 2017 Coordinator Candice J. Foley
- Suffolk Community College Foundation Executive Director Sylvia Diaz
- SUNY Suffolk – Andrew Fawcett
- SUNY Suffolk – Patricia Lindsay
- SUNY University Faculty Senate President Peter Kneupfer
- SUNY Student Assembly
- SUNY Faculty Council of Community Colleges President Nina Tamrowski
- SUNY Suffolk and Fredonia – Information Technology Teams
- SUNY Faculty Senate – Carol Donato
- SUNY Brockport – Jamie Spiller
- SUNY Cobleskill – Susan Zimmerman

**Suffolk County Community College SURC East Steering Committee**
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- James Keane
- Tania Velasquez
- Christopher Adams
- Shady Azzam-Gomez
- Deborah Lesser
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- Nelly Sta Marie
- Sean Tvelia
- Joshua Wolfson
- Deborah Wakefield
- Charles Wittreich
- Yingfen Zhang
- Yu Zhong

**Thank you to SURC East 2017 SUNY Graduate/Transfer & Fair Representatives**
- SUNY Stony Brook
- SUNY Delhi
- SUNY Oswego
- SUNY Geneseo
- SUNY Maritime
- SUNY Purchase
- Brookhaven National Laboratory
- Long Island STEM Hub
- Elsevier
Biology, Environmental Science  
Chair: Dr. Peter Smith  
Enhanced Susceptibility to Microbial Infections in Bivalve Larvae and Juveniles Exposed to Acidified Seawater  
Michelle Barbosa, SUNY Stony Brook  
Food Insecurity at Old Westbury: Prevalence of the Problem and the Proposal of a Solution  
Hannah Duffin, SUNY Old Westbury  
Seals and the City: Pinnipeds are Returning to Urban Waterways  
Kelly Michalak, SUNY Empire State  
Transport and Occurrences of Fecal Indicative Bacteria (FIB) in New York City Lakes  
Ace Vladimir Alcantara, CUNY York College  
Using GIS to Identify SAV and Oyster Risks in Relation to Water Treatment Plants and Dead Zones within Chesapeake Bay, MD  
Michael Cashin, SUNY Stony Brook

Chemistry, Engineering, Biology  
Chair: Dr. Zhenyu Sheng  
Fuel Cell Testing Station  
Roshan Gerard, SUNY Farmingdale  
Raman Spectroscopy of Blood False Positives  
Robert Rosenblatt, SUNY Albany  
Solar Stirling Engine  
Hao Fu, SUNY Farmingdale  
Total Phenol Count (TPC) in Wines  
Thomas Papas, SUNY Stony Brook  
3-D Printed MicroFluidics as a Novel Means to Cool Photovoltaics for Renewable Energy  
Alicia Scott, SUNY New Paltz

Psychology, Sociology  
Chair: Dr. Nelly Sta. Maria  
Validating Visual Eye Tracking Technology to Assess Accommodative Technology for Students with Disabilities in Undergraduate Education  
Anders Chan, SUNY Old Westbury  
An Assessment of Low Level Lead Exposure on Encephalization and Cortical Quotients and Its Relationships with Cortical Thinning & Neurodegeneration  
Samantha Rubi, SUNY Old Westbury  
Documenting the Realities of the Undocumented: A Qualitative Investigation into the Intersectional Social Experiences of Immigrant College Students  
Barbara Mellace, SUNY Suffolk  
The Singular Image  
Dwayne Moore, SUNY Stony Brook  
An Examination of Racial Perceptions, Experiences, and Biases among Stony Brook University Students  
Michelle Olakkengil, SUNY Stony Brook
Communications, Political Science  
**Chair:** Dr. Yingfan Zhang  
*The Art of Learning*  
Gabriella Mayers, SUNY Suffolk  
*Social Media: Tool for Expression or Message?*  
Nathalie Mensah, SUNY New Paltz  
*Electoral College Reform: Making Presidential Elections More Direct*  
Matthew DiGiovanni, SUNY Stony Brook  
*Party Loyalty vs. Racial Identity in the 2012 Election*  
Sarah Eller, SUNY Stony Brook  
*The Secret War in Laos: A Blueprint for U.S. Intervention*  
Kevin Rutigliano, SUNY Stony Brook

English, History, Art History  
**Chair:** Prof. Margaret Altizer-Evans  
*Dance with Me: Re-Evaluating Khmer Art History and African American Art History as a Social Justice Initiative*  
Jaylexia Clark, SUNY Cornell  
*Race and the Human Apocalypse: Posthumanism in Melville's Benito Cereno*  
Kristofer Barr, SUNY Stony Brook  
*Nation Building and Colonization in Salarrué’s Cuentos de Barro*  
Diana Hernandez, SUNY Stony Brook  
*Fighting against Progress: Parental Opposition to Integration in New York City During the 1960s*  
Paul Torres, CUNY Hostos Community College

Contemporary Health Issues, Psychology  
**Chair:** Prof. Joy Borrero  
*The Development of Music Preference: Methodological Considerations*  
Mellisa Eathorne, SUNY Purchase  
*Attachment Insecurity and Cognitive Reappraisal Differentially Predict Distress Associated with Continuing Bonds in the Bereaved*  
Barbara Kinsella-Kammerer, SUNY Purchase  
*Attachment Insecurity and Cognitive Reappraisal Predict Attentional Biases for Emotional Information*  
Dana Weibman, SUNY Purchase  
*Caregiving in College: Academic Performance, Time Management and Stress*  
Caryn Brown, SUNY Old Westbury  
*Can Blood Donation Be Good for the Body As Well As the Soul?*  
Sanjeev Reddy, SUNY Orange County

SURC EAST 2017 – POSTER SESSION I  
**10:00 am - 11:00 am – HSEC Fieldhouse**

**Biology**  
*The Role of GLUA1 AND GLUA3 Trafficking in the Basolateral Amygdala during Pavlovian Reward Conditioning*  
Diego Alvarado, CUNY York College  
*Zika Virus*  
Berkis Berroa, CUNY Hostos Community College
Development of an Effective Protocol for Humulus lupulus (Hops) Cultivation to Enable Tissue Culture of Local Cultivars
  Samantha Berube, SUNY Cobleskill

Discovering Small Molecules as Alternative Treatments to Polycythemia Vera
  Conrad Dobrowolski, SUNY Farmingdale

Spatially Resolved Protein Labeling in Mycobacteria
  Kathryn Eckartt, SUNY Stony Brook

Ca2+ Sensitive Split Enzyme System for Marking Neural Circuitry
  Kelly Eckartt, SUNY Stony Brook

The Effect of Atrazine on the Cytoskeletal Structure of Jurkat Cells
  Ashley Fisher, SUNY New Paltz

Using Flow Cytometry to Analyze the Tissues of the Thymus and Spleen
  Dupah Gobin, CUNY York College

Comparing the Prevalence of Pathogenic Bacteria in Wild Ring-tailed lemurs (Lemur catta) inside and outside of Beza Mahafaly Special Reserve in Madagascar
  Rima Madan, SUNY Stony Brook

The Novel Agent Phospho-Valproic Acid Triggers Mitochondrial Dysfunction Leading to Apoptosis in Human Glioblastoma Cells
  Jonathan Millings, SUNY Stony Brook

Analysis of Bacterial Populations in Soil Samples from Two Different Environments
  Tamaya Moonsammy, SUNY Suffolk

Analysis of Gene Expression Changes Induced in the Cortex and Hippocampus during ‘Chemo Brain’
  Arun Nallainathan, SUNY Stony Brook

Meta-Analysis of the Impact of Prescribed Fire on Forest Soil Nutrients
  Erin O’Connor, SUNY Stony Brook

“Look Out!”: Do Verbal Warnings Help People Retrieve Appropriate Gait Patterns?
  Krista Pullen, SUNY Stony Brook

Does a Canine’s Home Life Change Their Work Life?
  Carly Rubin, SUNY Cobleskill

The Effect of Modeled Microgravity on the Activation of Jurkat Cells
  Laura Scarimbolo, SUNY New Paltz

A Metagenomic Approach to Study the Microbial Population of Jamaica Bay and the Impact of Nearby CSO Discharges in the Microbial Community
  Tanjila Sharif, CUNY York College

Migration of the Human Prostate Cancer Cell Line: PC3 is Regulated by Hexim1
  Awa Sow, SUNY Old Westbury

Chemistry and Engineering

Kinetic Analysis of Prodrug Activation by HDAC & CTSL in Treatment of Human Multiple Myeloma
  Wei-Chieh Tseng, SUNY Stony Brook

Efficiency of Co/CeO2 Catalysts in NOx Reduction with NH3-SCR
  Brian Bick, SUNY Suffolk

Fluorescent Small Molecule Probes as Live Chemical Imaging Tools
  Joshua Farr, SUNY Stony Brook

Total Phenol Count (TPC) in Wines
  Kaitlyn Guteres, SUNY Suffolk

Exploring the Mathematics behind Escher's Art
  Sharon Levin, SUNY Purchase

Mobile Application to Help People in a Life-Threatening Situation
  Wanggyal Sherpa, CUNY LaGuardia Community College
Eye Tracking Software and Enriched User Interface
   Eifu Tomita, SUNY Stony Brook

Curvature Identity and Its Applications
   Kerolos Betros, CUNY Hostos Community College

A Simplified Model for Neat Cement Flow During the Foamed Cement Manufacturing Process
   Julian Chipkin, SUNY New Paltz

Three-Dimensional Macroporous Graphene Scaffolds for High Performance Supercapacitor Electrodes for in vivo Applications
   Michael D’Agati, SUNY Stony Brook

Design and Implementation of a Smart House System for Vulnerable People
   Nikola Georgiev, SUNY Farmingdale

Cloud-based Smart Device for Environment Monitoring
   Christian Huacon, CUNY Hostos Community College

Analytical and Experimental Analysis of Rocking Columns Subject to Seismic Excitation
   Thomas Kennedy, SUNY Stony Brook

Design and Implementation of a Tesla Turbine
   Ari Pignatelli, SUNY New Paltz

Role of Glycosaminoglycans in Viscoelastic Properties of Human Temporomandibular Joint Disc
   Sergio Velez, CUNY LaGuardia Community College

Environmental

Use of Filtration Media to Reduce Pollution of Suffolk County’s Groundwater
   Henry Aguinada, SUNY Farmingdale

Nitrate Contamination in Groundwater of Upper Glacial Aquifer of South- East Queens, New York City
   Somtochukwu Egonu, CUNY York College

The Impact of Septic Systems on Long Island's Aquifer
   Kathryn Gutleber, SUNY Suffolk

Building the Perovskite Polymer Based Solar Cell
   Malini Kiriwandalage, SUNY Suffolk

Spectrophotometric Determination of Cadmium in Water Samples of the Harlem River
   Boukari Regtoumda, CUNY Hostos Community College

Analysis of Various Mathematical Models on Harvesting Fish Population
   Abraham Ferrera, CUNY Hostos Community College

Physics

Improving Efficiency of Microwave Spectroscopy
   Nicholas Feuer, SUNY Purchase

The Impact of Climate Change on World Hurricane Energy
   Sakhr Aldaylam, Queensborough Community College

Detecting Cosmic Ray Muons Coming from Outer Space at Suffolk County Community College
   Mike Kennedy, SUNY Suffolk

Detecting Cosmic Ray Muons Coming from Outer Space
   Garrett Stoddard, SUNY Stony Brook

High Chlamydia Prevalence in Rural Counties of New York
   Whitney Callaghan, SUNY Potsdam

Psychology

Cognitive Reappraisal Predicts Personal Growth in the Bereaved
   Victoria Barsi, SUNY Purchase

Some Badass Witches: The Influence of Colloquial Language in Testing
   Nikki Baldwin, SUNY Old Westbury
Flash Bulb Memories Based on the 2016 Presidential Election
   Dana Gerasimovich, SUNY Farmingdale

Do People Know That Black and White Images are Better for Self-Control Compared to Colored Images?
   Allison Haugh, SUNY Purchase

Factors Affecting First-Generation College Students’ Academic Performance
   Ramatoulaye Jalloh, SUNY Old Westbury

Developmental Lead Exposure Produces Seizure Resistance to the Cholinergic Muscarinic Agonist Pilocarpine
   Tokunbo Jimmy Jose, SUNY Old Westbury

How Do Key Issues Affect Voters’ Preference?
   Matthew Lidonnici, SUNY Suffolk

Iconic Memory for Emotional Scenes
   Kristine Lycke, SUNY Farmingdale

An Industrial-Organizational Analysis of Stress and Coping Findings among College Students
   Aneka Phillip-Francois, SUNY Old Westbury

The Role of School Connectedness on Bullying Behavior
   Caroline Plonsky, SUNY Purchase

Watch Your Tone: The Effects of Colorism on African Americans' Self-Perception
   Nicholas Prendergast-White, SUNY Old Westbury

Investigating the Saving-Enhanced Memory Effect with Notes
   Avianca Ramos, SUNY Purchase

Feedback and Task Performance
   Haaziq Walker, SUNY Farmingdale

Binaural Audio in Virtual Reality
   Brian Cahill-Assenza, SUNY New Paltz

SURC EAST 2017 – THEATRE AND MUSIC PERFORMANCE SESSION
   10:45 am - 12:00 pm – Sagtikos Arts Building – Van Nostrand Theatre

Arts, Humanities, and Social Sciences, Music
Chair: Prof. Charles Wittrich
Women’s Role in Society Reflected Onstage and in Music
   Elizabeth Brenner, SUNY Stony Brook

Cause of Death or Tales of The Malboro Man
   Drew Chadwick, SUNY Suffolk

Essentialism in Post-9/11 South Asian American Rap
   Shayan Afridi, SUNY Stony Brook

SURC EAST 2017 – ORAL SESSION II
   Health, Sports, and Education Center
   10:45 am - 12:00 pm

English, History
Chair: Dr. David Clark
The Inversion of Biblical Themes within Doctor Faustus
   Ariana Lawlor, SUNY Ulster County
Ophelia: Gender and Madness
    Heather Warg, SUNY Ulster County
"Let Our Noble Wrath Boil Over Like a Wave!": Connections between Soviet Propaganda and Red Army War Crimes during World War II
    Matheson Curry, SUNY Albany
The Untold Civil War of the 1960s: Mainline Protestants and Catholics in Albany, New York
    Catherine Quinn, SUNY Albany
Fanonian Theory in America through the Lens of Orientalism
    Kelly Smith, SUNY Stony Brook

Psychology
    Chair: Dr. Nelly Sta. Maria
Meaning of Successful Aging Redefined to Include Individuals with Chronic Physical Conditions
    Sera Bajaj, SUNY Old Westbury
Parental Influence: Potential Long-Term Effects of Strict Parenting
    Sabrina Colmone, SUNY Old Westbury
The Facilitated Oddball Effect: Expecting the Unexpected
    Sarah Goldstein, SUNY Purchase
Do People Inherently Know When to Switch between Construal Levels?
    Elizabeth Merolle, SUNY Purchase
Role of Uncertainty in Perceptual Decision-Making in Individuals with Anxiety
    Matthew Moss, SUNY Stony Brook

Engineering
    Chair: Prof. Peter Maritato
Hydrogen Purification
    Ramasubramaniyam Ashok, SUNY Farmingdale
Expansion of the Biomass Project and Installation of Gasification System
    John Di Raimondo, SUNY Farmingdale
Stirling Engines and Their Practical Use in the Real World
    Benjamin Knight, SUNY Farmingdale
Stirling Engine
    Claribeli Veliz, SUNY Farmingdale

Women and Gender Studies
    Chair: Dr. Sandra Sprows
From Ma to Minaj: Connecting the Legacies of Classic Blues Women to Those of Modern Women Hip Hop Artists
    Genevieve Ruzicka, SUNY Stony Brook
A Study of Maternal Mortality Rates and Fear Surrounding Childbirth in the U.S. Healthcare System
    Carinna Emilio, SUNY Stony Brook
Cyborg Identity in Terminator 2: Judgement Day
    Natalia Keogan, SUNY New Paltz

Psychology, Contemporary Health Issues
    Chair: Dr. Greg Ryan
Trump and Clinton: An Online Qualitative Analysis of the 2016 Presidential Election
    Jessica Leather, SUNY Purchase
Experiential Learning and Its Effect on Undergraduate Students
    Briana Leon, SUNY Purchase
The Hepatitis B Health Education Awareness Initiative
Grace Chang, SUNY Stony Brook

The Effect of Cultural Perspectives on the Likelihood of South Asian-Americans Seeking and Receiving Mental Health Treatment
Gul-E-Zehra Abbas, SUNY Old Westbury

Do the SUNY Old Westbury Students Have Knowledge of the Support Systems and Programs They Provide Regarding Sexual Assault?
Katherine Goebeler, SUNY Old Westbury

Mathematics, Computer Science

Chair: Dr. Alexander Atwood

Stereo Lithography – STL Graph and 3D Printing
Nathan Bunch, SUNY Ulster County

Image Modification: Analyzing the Use of Sinusoidal Functions in Sequence
Mahir Rafi, CUNY The City College of New York

Motivating Students in Computer Science through Creative Coding Workshops
Gabrielle Zahuantitla, SUNY Old Westbury

A Project on Approximating Expected Utility of Mutual Fund Investments
Xuejiang Jin, SUNY Farmingdale

Analysis of Various Mathematical Models of Harvesting Fish Population
Teewende Kisbedo, SUNY Hostos Community College

Business, Economics

Chair: Prof. Scott Giaccone

A Study of the New York Craft Brewing Industry and Alcohol-Related Motor Vehicle Accident Rates
Brian Adrian, SUNY Oneonta

How the Fourth Industrial Revolution Will Impact jobs
Adan Cid-Gonzalez, SUNY Purchase

Is the Random Walk Hypothesis an Accurate Description of the S&P 500?
Charissa Mosca, SUNY Purchase

Examining the Gender Wage Gap
Alyssa Smeding, SUNY Cortland

SURC EAST 2017 – ORAL SESSION III
Health, Sports, and Education Center
1:45 am - 3:00 pm

English, History

Chair: Dr. Marlene DuBois

Contraception and Corporations in Margaret Atwood’s Oryx and Crake
Laura Gualtieri, SUNY Stony Brook

Thick as Thieves: The Effect of Music Piracy on Musicians and the Industry
Justin Lerner, SUNY Stony Brook

TNT: Textiles N’ Turmoil
Fazal Hussain, SUNY Albany

The Digital Classroom: A Social and Ethical Consideration of Teaching with Technology
Nicholas Raffel, SUNY Stony Brook
**Engineering**

Chair: Sonya Lorraine

*Residential Wind Turbine*
  Christopher Jaeckel, SUNY Farmingdale

*Modification and Improvement of Wheelchairs for Physically Challenged Patients*
  Joaquin Pallanza, SUNY Farmingdale

*Fuel-Cell Powered Bike*
  Arjun Sureshkumar, SUNY Farmingdale

*Evaluating the Performance of Wind Turbine*
  Pooventhiran Velumani, SUNY Farmingdale

**Engineering, Physics**

Chair: Dr. Glenda DeNicolo

*Polihedral DNA for Assembly of Plasmonic-Light Emiting Nanocluster with Controllable Optical Output*
  Kaiwei Wang, SUNY Stony Brook

*Automated Instrumentation and Experimental Techniques for Cryogenic Material Characterization*
  Ryan Duke, SUNY Farmingdale

*Current Efforts Toward Sepation of Water and Oil in Capillary Diodes*
  Andrew Nwuba, SUNY Stony Brook

*Microgrid*
  Ananthakrishnan Shajan, SUNY Farmingdale

**Political Science, Foreign Language, Philosophy**

Chair: Janet Simpson

*Second Language Acquisition in NYS Public Education*
  Cassandra Leonard, SUNY Stony Brook

*Shakespeare's Impact on Fashion*
  Ryan Harinski, SUNY Suffolk

*From Futuristic to Forgotten: The Juxtaposition of the American World's Fairs*
  Rachel Lee, SUNY Cobleskill

*Orthodoxy and the Reformation: Tubingen and Constantinople Correspondence*
  Mark Gendy, SUNY Old Westbury

*The Rule of Law and Not of Men*
  Carly Gleichenhaus, SUNY Stony Brook

**Arts and Humanities**

Chair: Dr. Virginia Horan

*Release: Activating the Ruins of Spanish Conquest on the Island We Call Quisqueya, as Fertile Ground for Decolonization*
  Catherine Feliz, SUNY Purchase

*Art Imitating Life: How Black Masculinity Is Constructed within Black Media*
  Greer Mayhew, SUNY Stony Brook

*True and False Masculine Identifiers in the Táin Bó Cúailnge*
  Jorgen Tacetta, SUNY Suffolk

**Contemporary Health Issues, English**

Chair: Dr. Karen Duval

*Teaching Hatchet and Masculinity*
  Ashley Barry, SUNY Stony Brook

*Moreau's Law: The Paradox of Vegetarianism and Cannibalism*
  Clara Yan, SUNY Stony Brook
Perception and Knowledge of Services Available to Victims of Domestic Violence in New York City
   Lina Sinisterra, SUNY Potsdam
Medical Protection for the Newest Americans: Providing Accessible Cancer Screening for Refugees in the United States
   Karis Tutuska, SUNY Stony Brook

Mathematics, Computer Sciences
Chair: Prof. Debra Wakefield
Integrating Cybersecurity to an IoT Device
   Joseph Abel, SUNY New Paltz
Creating a Modifiable Open-Source Statistical Tool for Novice Statisticians
   Jordan Billups, SUNY Purchase
Modern Day Web Application: How to Build It from the Ground Up
   Stanimir Stoychev, SUNY Purchase
A Minimalistic Approach to the Presentation of Calculus
   Nicholas Roberts, SUNY Purchase

Business, Economics
Chair: Prof. Nina Leonhardt
Benefits and Challenges of Discussions on Online and Hybrid Classes: Ways to Be Enhanced
   Eman Elhussiny, SUNY Old Westbury
The History and Future of Political and Social Influence on Corporate Regulatory Policy in America
   Gwendolyn Parrish, SUNY Ulster County
Optimal and Heuristic Methods for the School Bus Fleet Size Problem
   Jiayuan Zhang, SUNY Stony Brook
An Economic Theory of Limited Self Control
   Matthew Choong, SUNY Stony Brook

SURC EAST 2017 POSTER SESSION II
01:30 pm – 02:30 pm – HSEC Fieldhouse

Biology
A Peer Investigation: Civic Engagement inside and outside an Anatomy and Physiology Classroom
   Jonathan Hanna, CUNY Kingsborough Community College
Review of Components to Opioid Addiction with a Proposal of Ayahuasca as a Potential Supplement to Current Treatments
   Steven Hines, SUNY Suffolk
Development of Drought and Salinity Tolerance Cultivar of Panicum virgatum by Over Expressing SIZ1 E3 Ligase Gene (In Progress...)
   Yao Chen, SUNY Cobleskill
Effect of the Indonesia Coffee Beans by Using Proteolytic Enzymes and Enterococcus faecium
   Pingjin Chu, SUNY Cobleskill
The Effect of the Veterinarian-Client-Patient Relationship on Adherence to Medical Recommendations
   Kaitlyn Daigle, SUNY Cobleskill
Increased Expression of SIZ1 in Glycine max Encourages Drought and Salinity Tolerance
   Wenjia Du, SUNY Cobleskill
The Effect of Pyrethrum on Neuro-Immune Tissue in Humans and Animals and Its Implication in Neurodegenerative Disease
   Maryam Farooq, SUNY Old Westbury
Development of a Nematode Resistant Cultivar of Panicum virgatum L. via Agrobacterium-Mediated Transformation of the Cysteine Protease Inhibitor 1 Gene (In Progress …)
   Erin Fitzgerald, SUNY Cobleskill
Over Expression of Valerophenone Synthase (VPS) in Humulus lupulus (Hops) for Enhanced Lupulin Production
   Analysa Frederick, SUNY Cobleskill
The Effect of Decreased Membrane Fluidity on the Efficacy of the Antimicrobial Peptide Maximin 3
   Sarah Ann King, SUNY Purchase
Prostate Cancer Cells Migration Is Regulated by Tyrosine Phosphorylation of Hexim1: Implications in Tumor Metastasis
   Karan Kumar, SUNY Old Westbury
Development of a Nematode Resistant Cultivar of Glycine max via Agrobacterium-Mediated Transformation of the Cysteine Protease Inhibitor 1 Gene
   Sophie LaRochelle, SUNY Cobleskill
Development of Agrobacterium-Mediated Transformation System in Hops (Humulus lupulus).
   Jiayin Liu, SUNY Cobleskill
The Future of Gene Editing
   Ramish Nasir, SUNY Old Westbury
Improvement of CRISPR/Cas Genome Editing in Candida albicans by Optimizing Guide RNA Expression
   Henry Ng, SUNY Stony Brook
Impact of Chronic Kidney Disease on Mortality in Adults Undergoing Balloon Aortic Valvuloplasty
   Samantha Novotny, SUNY Stony Brook
The Effect of Toca1 on Cluster-Induced Endocytosis
   Cassandra Nyati, SUNY Stony Brook
Studies of Animal Regeneration for Possible Medical Application
   Adali Ocasio, CUNY Hostos Community College
Antinociceptive Drugs: Finding Potent Pharmacological Anandamide Transport Inhibitors
   Joseph Sweeney, SUNY Stony Brook
Overexpressing Cysteine Protease Inhibitor Gene to Enhance Stress Resistance in Switchgrass (In progress…)
   Caijie Wang, SUNY Cobleskill
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   Kai Yuan, SUNY Cobleskill
Development of Drought and Stress Tolerant Switchgrass (Panicum virgatum L) Cultivar via Agrobacterium-mediated Transformation of a Bacterial Choline Oxidase A Gene (CoxA)
   Wanlu Zeng, SUNY Cobleskill
The Hepatitis B Health Education Awareness Initiative
   Grace Chang, SUNY Stony Brook

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   Fatima Saidy, CUNY LaGuardia Community College
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   Celsey Stahlman, SUNY Stony Brook
Brain-Computer Interface Video Game
   Nick Noejovich, SUNY Purchase
Making Credit Cards Secure: Authenticating Phone Message
   Yiu Chung Yau, CUNY LaGuardia Community College
The Exploration of Hybrid Synthesizer Architecture and Implementation
   Collin Champagne, SUNY Stony Brook
Metabolic Heat Regulation by African Elephants (Loxodonta africana)
   Asmaa Elfakir, CUNY Hostos Community College
Structural Integrity of 3D Printed Infill
   Paul Lievano, SUNY Maritime
Design of a Stand-Alone PV System for a Cabin in a Remote Location
   Miriah Mono, SUNY Canton
Data Acquisition and Monitoring of a Gasifier Operation Using LabVIEW Software, Temperature Sensors, Pressure Transducers, and Humidity Sensors
   Daniel Pabon, SUNY Farmingdale
2D Analysis to Quantify the Effects of Fracture Geometry on Flow Features in Rough Fractures
   Greg Schotte, SUNY New Paltz
Alterations in Cytokine and Melanin Levels in MNT-1 Human Melanoma Exposed to Platinum Nanoparticles of Varied Sizes
   Sai Sreenivasamurthy, SUNY Stony Brook
Development and Application of 3D Printed Micro Reactors to Study Fluid Kinetics in Chemical Engineering
   Tahseen Tabassum, SUNY Stony Brook
Narcan Advanced Nomenclature
   Melissa Snare, SUNY Cobleskill

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   Juliet DeVito, SUNY Old Westbury

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   Alexandra Bonecutter, SUNY Stony Brook
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   Lucia Mallozzi, SUNY Suffolk
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   Bianca Paul, SUNY Suffolk
Research on Environmental Noise Pollution in New York City
   Arly Wispe, CUNY Hostos Community College
Ethical Beaver Management by Nature Preserves in Northeastern United States
   Shauna Wright, SUNY Stony Brook

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   Connor Leavens, SUNY Purchase
Curvature Identity and Its Applications
   Analilia Mendez, CUNY Hostos Community College
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   Jenifer Vivar, CUNY Hostos Community College

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Particle Trajectory Visualization and Identification with Timepix Detectors
   Jessica Flores, SUNY Stony Brook
A Study of the Physics of Martial Arts  
Brittney Herold, SUNY Suffolk

Analysis of the Electron-Ion Timing Resolution in a Proportional Gas Chamber  
Ian Kotler, SUNY Suffolk

Food Security and Road Access in Madagascar  
Leila Esmailzada, SUNY Stony Brook

What Coordinate System Do We Use for Imagined Motion?  
Max Edelmann, SUNY Purchase

Psychology

The Psychological and Physiological Effects of Stereotype Threat on Executive Functioning in Bilingual Adults  
Jazmine Encalada, SUNY Purchase

Reducing Sexist Beliefs Using Various Male Privilege Enhancement Strategies  
Kimberly Estevez, SUNY Purchase

“Justice Is Not So Blind”: Bias in the United States Court Room  
Alicia Fyne, SUNY Old Westbury

The Influence of Temporal Context on Perceived Attractiveness  
Samuel Kellogg, SUNY Purchase

Do Young Infants React with Surprise, Curiosity or Puzzlement When Viewing Optical Illusions?  
Christina Krause, SUNY New Paltz

The Influence of Metaphor Modality on Persuasion  
Mark Lauria, SUNY Purchase

Do Young Infants React with Surprise, Curiosity or Puzzlement When Viewing Optical Illusions?  
Danielle Longo, SUNY New Paltz

Differences in College Student Stress Levels According to Residential and First-Generation College Student Status  
Angela McCorkle, SUNY Old Westbury

Mommy-Say, Baby-Say: Crawling and Walking Infants’ Interactions with Mothers  
Tamara Moseley, CUNY College of Staten Island

Mothers’ Executive Functioning Predicts Sensitivity to Infant Distress  
Amanda Ng, SUNY Stony Brook

Do Biases Exist Based on Job Applicant Gender and Sexual Orientation?  
Isabella Sciara, SUNY Old Westbury

How Sexism Can Bolster or Depress Self-Worth  
Devin Tobin, SUNY New Paltz
About today’s Keynote Speaker
Stony Brook University President, Samuel L. Stanley Jr., MD

On July 1, 2009, Samuel L. Stanley Jr., MD, became the fifth president of Stony Brook University, taking the helm of one of the nation’s most prestigious research institutions. One of just 62 members of the invitation-only Association of American Universities, Stony Brook is recognized for its innovative programs, groundbreaking discoveries and integration of research with undergraduate education.

A Seattle native, Dr. Stanley has a Bachelor of Arts degree in biological sciences (Phi Beta Kappa) from the University of Chicago. After earning his medical degree from Harvard Medical School in 1980, he completed his resident-physician training at Massachusetts General Hospital. He went to Washington University in St. Louis in 1983 for a fellowship in infectious diseases in the School of Medicine, eventually becoming a professor in the Departments of Medicine and Molecular Microbiology in recognition of the collaborative nature of his research. A highly distinguished biomedical researcher, Dr. Stanley was one of the nation’s highest recipients of support from the National Institutes of Health (NIH) for his research focusing on enhanced defense against emerging infectious diseases. He is an expert in the biological mechanisms that cells employ when responding to infectious agents such as parasites, bacteria and viruses—a process commonly called the inflammatory response. In 2006, Dr. Stanley was appointed Vice Chancellor for Research at Washington University, serving in that position until he was appointed President of Stony Brook University.

Since becoming President of Stony Brook University, Dr. Stanley has focused on obtaining the resources necessary to enable Stony Brook to attain the next level of excellence. He was a champion of the NYSUNY 2020 legislation, which will help Stony Brook hire more than 240 new faculty over the next five years. Making fundraising a priority, Dr. Stanley had the most successful year in Stony Brook University’s history, anchored by a remarkable gift from Jim and Marilyn Simons and the Simons Foundation, the sixth-largest gift to a public university ever recorded. Dr. Stanley has made philanthropic support of faculty a priority and has significantly increased the number of endowed professorships at the University. A champion for Long Island’s economic development, he serves on Governor Andrew Cuomo’s Long Island Regional Economic Development Council, working to improve Long Island’s economy, with a special emphasis on supporting projects related to the smart grid, energy storage, renewable energy, information technology and biotechnology.

Dr. Stanley served on the SUNY Strategic Planning Steering Committee, which played a pivotal role in shaping the development of SUNY’s new Strategic Plan that will guide SUNY for the next five years and the University for the next ten. As Board Chair of Brookhaven Science Associates, which manages Brookhaven National Laboratory on behalf of the U.S. Department of Energy, Dr. Stanley joins the leaders of a select group of prestigious academic institutions, including Princeton, Stanford, the University of California-Berkeley, and the University of Chicago, that play a role in running and collaborating with a national laboratory. He also serves on the boards of the SUNY Research Foundation, Cold Spring Harbor Laboratory, Goodwill Industries of Greater NY and NJ, and the Long Island Association. He is Chairman of the National Science Advisory Board for Biosecurity, which advises the United States government on issues related to the communication, dissemination and performance of sensitive biological research.

Generating an estimated $4.7 billion annually in regional economic impact, Stony Brook is playing a vital role in Long Island’s transformation into a major technological corridor, bringing new innovations in wireless technology, clean energy, diagnostic and sensor systems, and medical biotechnology to the area. Stony Brook faculty members are credited with more than 1,700 inventions and more than 500 U.S. patents, and our research enterprise generates $160 million in revenue annually. With the newly created New York Energy Policy Institute—a consortium of research centers and experts to advise the State on energy policy—housed at the Advanced Energy Research and Technology Center at Stony Brook, the University will assume a leading role in our region’s well-being for years to come.
Improving America’s STEM education has become a top priority across the nation. At Suffolk, approximately 1,500 students are currently enrolled in STEM majors and the College’s STEM program has been producing award-winning students while providing summer research internships at internationally-renowned facilities, including Brookhaven National Laboratory, NASA, and Oak Ridge National Laboratory, to name just a few.

Contact us at 631-451-4111 to find out why making Suffolk your first choice is a decision that's second to none.
Thank you for your participation!