The

# Semi-Annual Poster Presentation

HONORS & EMERGING SCHOLARS POSTER PRESENTATION

Wednesday, May 6, 2015 11:00AM - 4:00PM Atrium Ground & First Floors

Thursday, May 7, 2015 10:00AM - 3:00PM Awards Ceremony at 12:30PM Atrium Amphitheater

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### Awards Ceremony

May 7, 2015 Atrium Amphitheater 12:30 PM

#### Greetings

Russell K. Hotzler President

Bonne August Provost and Vice President for Academic Affairs

Pamela Brown Associate Provost

#### **Honors Scholars Recognition**

Janet Liou-Mark Director of the Honors Scholars Program

Laura Yuen-Lau Coordinator of the Honors Scholars Program

#### Research and Emerging Scholars Recognition

Justin Vazquez-Poritz Director of Undergraduate Research

#### **Best Poster Awards**

Reneta D. Lansiquot Assistant Director of the Honors Scholars Program



Ice Skating at Prospect Park December 23, 2014





### Honors In A Regular Course

#### **Developing WebGL Applications**

Hibba Abbas Prof. Elizabeth Milonas **CST 4704:** Business Intelligence, Data Warehousing & Data Mining

#### **Punching Shear in Flat Slabs**

Amanda Abrew Prof. Mark Hendel CMCE 2415: Structural Design: Concrete

#### **Estimating Risk Costs in Construction**

Amanda Abrew Prof. Alex C. Ladias CMCE 2412: Construction Estimating

#### Studies on the Effect of OPIDN

Victor Adedara Prof. Niloufar Haque **BIO 1101:** Biology I

#### The Relationship between Breast Augmentation and Breast Cancer: A Literature Review

Nazia Ahmad Prof. Lillian Amann **RAD 2426:** Imaging Modalities

#### Teaching Evolution: A Students' Perspective

Abdullah Allaoa Prof. Mercer R. Brugler **BIO 1201:** Biology II

#### **CST Department Mobile Application**

Md Arefin Prof. Marcos Pinto **CST 3519:** XML Data Representation

#### Examining Attitudes towards Mathematics in Foundational Courses with Peer-Led Workshops

Amarou Bah Prof. Janet Liou-Mark **MEDU 2901:** Peer Leader Training in Mathematics

#### White Paper: Feasibility of Solar Power in Energy Production – Where the Industry is Today

Aparicio Castano Prof. Abdul M. Awal **EET 1122:** Circuit Analysis I

#### The Biodiversity of Prospect Park -Microbiology Aspects

Bryan Cespedes Prof. Liana Tsenova **BIO 3302:** Microbiology I

#### Lost in Translation Digital Book

Dauly Cuello Prof. Derek Stroup COMD 1200: Graphic Design Principles II

#### The Pollution in the Hudson River's Waterways

Jessica Daher Prof. Sean MacDonald **ECON 2505:** Environmental Economics

#### Exploration of Precalculus Students' Mathematical Identity and Formative Mathematical Experiences

Saloua Daouki Prof. Nadia Kennedy MEDU 3020: Methods of Teaching Secondary School Mathematics

#### A Literature Review of Case Studies in Computer Education

Richard Felix Prof. Reneta D. Lansiquot

ENG 1773: Weird Science: Interpreting and Redefining Humanity





#### Comparative Study of Data Security Protocols for the Internet of Things

Farjana Ferdousy Prof. Yu Wang **CET 4805:** Component and Subsystem Design II

#### Teaching Evolution: A Students' Perspective

Abdul Haq Prof. Tatiana Voza **BIO 1201L:** Biology II Lab

#### **Developing WebGL Applications**

Annique Henriques Prof. Elizabeth Milonas **CST 4704:** Business Intelligence, Data Warehousing & Data Mining

#### Teaching Evolution: A Students' Perspective

Tyniqua Hinton Prof. Mercer R. Brugler **BIO 1201:** Biology II

#### Prevalence of Antibiotic Resistant to Bacteria in Food from Retail Establishments

Manuela Hoyos Prof. Davida Smyth **BIO 3302L:** Microbiology I Lab

#### 5-Fluorouracil, Ifosfamide, and Topotecan: Three Organic Compounds Used in Cancer Treatment

Manuela Hoyos Prof. Diana Samaroo **CHEM 2223:** Organic Chemistry I

#### Paradigm Shifts Apropos to Voluntary Active Euthanasia

Gerard Jitechian Prof. Nicholas Chambers **PHIL 2203:** Health Care Ethics

#### The Future is CAD/CAM

Sydney Johnson Prof. Renata Budny **RESD 1212:** Fixed Prosthodontics II

#### Volodymyr Komendyak Profs. Oleg Berman and Ilya Grigorenko

PHYS 1434: General Physics II: Algebra Based

Superfluidity on the Nanoscale

#### **Dental Prostheses: Can It Be Avoided?**

Julie Landa Prof. Renata Budny **RESD 1212:** Fixed Prosthodontics II

#### Zirconia Versus Lithium Disilicate

Kamylla Lopes Prof. Renata Budny **RESD 1212:** Fixed Prosthodontics II

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Andrew Maloney Prof. Janet Liou-Mark **MEDU 2901:** Peer Leader Training in Mathematics

#### Electron-hole Superfluidity and Phase Transitions in Two Coaxial Nanotubes

William McGuire Profs. Oleg Berman and Ilya Grigorenko **PHYS 1434:** General Physics II: Algebra Based

#### **Superfund Sites**

Samiul Mozumder Prof. Soydan Alihan Polat **ESCI 1110:** Environmental Science I

#### Teaching Evolution: A Students' Perspective

Tsabiyh Mustafa Prof. Mercer R. Brugler **BIO 1201:** Biology II

#### The Relationship between Breast Augmentation and Breast Cancer: A Literature Review

Taj Nahar Prof. Lillian Amann **RAD 2426:** Imaging Modalities





#### Radiologic Technology Students' Perception of the Use of a Video for Demonstration of Positioning of the Shoulder

Niki Patel Prof. Jennett M. Ingrassia **RAD 2427L:** Seminar Lecture Lab

#### Exploration of Precalculus Students' Beliefs about Mathematical and Attitudes towards Mathematics

Rushdha Rafeek Prof. Nadia Kennedy MEDU 3020: Methods of Teaching Secondary School Mathematics

#### A Literature Review of Case Studies in Computer Education

Mariah Rajah Prof. Reneta D. Lansiquot

ENG 1773: Weird Science: Interpreting and Redefining Humanity

#### **DURA Solar Decathlon 2015**

Alondra Ramos Prof. Alexander Aptekar **ARCH 4830:** Construction Technologies: Special Topics

#### The Relationship between Breast Augmentation and Breast Cancer: A Literature Review

Mariama Sall Prof. Lillian Amann **RAD 2426:** Imaging Modalities

#### A Model of Gas Exchange in the Lung

Silma Samayeen Prof. Ariane Masuda MAT 1375: Precalculus

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Farjana Shati Prof. Janet Liou-Mark **MEDU 2901:** Peer Leader Training in Mathematics

#### The Biodiversity of Prospect Park -Microbiology Aspects

Eni Sejdini Prof. Liana Tsenova **BIO 3302:** Microbiology I

#### Radiologic Technology Students' Perception of the Use of a Video for Demonstration of Positioning of the Shoulder

Alicia Symister Prof. Jennett M. Ingrassia **RAD 2427L:** Seminar Lecture Lab

#### Immunization: A Look into Unvaccinated Children

Avion Thomas Prof. Erin Mckinney-Prupis **HUS 4803:** Resource Development in Human Services

#### Optimization of the Spectrum of an FM Signal

Ina Tsikhanava Prof. Zory Marantz **TCET 2102:** Analog and Digital Telephony

#### Comparative Study of Data Security Protocols for the Internet of Things

Eric Tung Prof. Yu Wang **CET 4805:** Component and Subsystem Design II

#### Sexual Harassment in the Workplace

Lillian Vazquez Prof. Horace Hutchinson **HMGT 3501:** Hospitality Work Force Management in a Global Marketplace

#### A Model of Gas Exchange in the Lung

Ling Yang Prof. Ariane Masuda MAT 1375: Precalculus





### **Research Scholars**

#### Design Analysis of Solid Waste Mixing in a Combustion Chamber

Christopher Amoroso Prof. Masato R. Nakamura

#### Energy Use vs. Indoor Air Quality in High-Performance and Sustainable Buildings

Joseph Cotter Prof. Lukasz Sztaberek

#### **Interactive Mechanical Toy Crane**

Hartford Hage Profs. Angran Xiao and Andy S. Zhang

#### **Mobile Diagnostic Expert System**

Mamun Hasan Prof. Marcos S. Pinto

#### Computational Design of Nano Devices for Optical and Quantum Computing

Andy J. He Prof. German Kolmakov

#### Positive Reframing and Vagal Tone: A Variation on the Expressive Writing Paradigm

Keishawna Jones Prof. Jean Hillstrom

#### Stochastic Simulation of a Combustion Chamber in a Waste-to-Energy (WTE) Power Plant

Ye Htet Lynn Prof. Masato R. Nakamura

#### Using Infograms for Online Educational Videos

Andrew Maloney Prof. Vasily Kolchenko

#### Stress Analysis for Stability of Structures Subjected to Human Loading

Rachid Moumni Prof. Gaffar Gailani

#### The Role of Metal Ions in $A\beta_{1-40}$ Aggregation and Reactive Oxygen Species Formation in the Course of Alzheimer's Disease

Magdalena Podgorny Prof. Alberto Martinez

#### **Crash-Free Spherical Aerial Vehicle**

Tenzing Rabgyal Prof. Xiaohai Li

#### Interactive Mechanical Toy Crane

Deborah Sitton-Garvin Profs. Angran Xiao and Andy S. Zhang

#### Investigation of the Lindenmayer Systems for Internal Architecture Design of Tissue Scaffolds

Joyce Tam Prof. Ozlem Yasar

#### Development of a Portable Low Cost Chemical/Dust Detection Unit

Semone Thomas Profs. Angran Xiao and Andy S. Zhang

#### Heliospheric Neutral Current Sheet Sector Structure Border Crossing by the Earth and the Seismicity of the Earth

George Vanishvili Prof. Masato R. Nakamura



Writing Abstracts for Research Projects Profs. Rebecca Devers and Marianna Bonanome & WAC Fellows February 26, 2015





### **Emerging Scholars**

#### **Developing WebGL Applications**

Hibba Abbas Prof. Marcos Pinto

#### Annotating TTHERM\_01194830

Sajjad Abedian Prof. Ralph Alcendor

#### **Public Housing Envelope Restoration**

Amanda Hayley Abrew Prof. Sean O'Brien

#### Embedded Security in V2V & V2I Communication using WIFI and Sensors

Muhammed Abubakar Prof. XinZhou Wei

#### Molecular Phylogeny and Biogeography of the Rattlesnakes (Crotalus and Sistrurus)

Serifat Adebola Prof. Christopher Blair



Responsible Conduct of Research Training Prof. Janet Liou-Mark March 5, 2015



Victor O. Adedara Prof. Niloufar Haque

#### Numerical Analysis of Waste-to-Energy Combustion Chambers

Joshua Afrifa Prof. Masato R. Nakamura

#### D & H Canal & Wurtsboro Town Masterplan

Tasnuva Ahmed Prof. Paul King

#### Mosquitos and Materials: Building Construction in Developing Regions

Tasnuva Ahmed Prof. Sanjive Vaidya





Advancing Library Research Techniques Prof. Anne Leonard March 12, 2015



#### **CST** Department Mobile Application

Md Arefin Prof. Marcos Pinto

#### XML Data Transfer in Android Application (cont.)

Khachatur Arutyunayn Prof. Marcos Pinto

#### **Case Studies of Site Analysis in NYC**

Alyssa Ayow Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### Characterization of Staphylococci from Built Environment

Rimsha Azhar Prof. Davida Smyth

#### Repository of Epigenomic Signatures for Autoimmune Rheumatic Diseases

Abzal Bacchus Prof. Evgenia Giannopoulou

#### Cloning and Expression of Human Taste Receptors

William Bennett Prof. Jeremy Seto

#### **Developing Web Pages with Bootstrap**

Shameem Bhuiya Prof. Marcos Pinto

#### **Valuation of Internet Companies**

Jovany Bravo Prof. Patrick O'Halloran

#### Benefits of Expressive Writing: Improvements in Vagal Tone over Time

Taylor Brown Profs. Pa Her and Jean Hillstrom

#### Effect of Garlic on TTHERM\_01194830 and TTHERM\_00295170

Leslie Brown Prof. Ralph Alcendor

#### **Biodiversity in Prospect Park**

Bryan Cespedes Prof. Liana Tsenova



#### Solar Decathlon

MuJun Chen Prof. Alexander Aptekar

#### Numerical Analysis of Waste-to-Energy Combustion Chambers

Tiffany Chong Prof. Masato R. Nakamura

#### **Can Antimicrobials Select for Resistance**

George Cobos Prof. Davida Smyth

#### **Outsourcing of Non-Educational Services**

Blanca Cortes Prof. Patrick O'Halloran

#### D & H Roebling Canal

Zahava Cortez Prof. Paul King

#### **Case Studies of Site Analysis in NYC**

Breno Bondarenko Costa Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### D & H Canal & Wurtsboro Town Masterplan

Breno Bondarenko Costa Prof. Paul King

#### Developing a Protein Interaction Network from Mouse Forebrain Samples Following Infection by Toxolasma Gondii

Emmanuel Coulanges Prof. Jeremy Seto

#### Chronicling the Achievements & Activities of Honors Scholars at City Tech

Zianne Cuff Prof. Reneta D. Lansiquot

#### Elements and Fundamentals of Optical Fiber Communication

Eddie Dang Prof. Lufeng Leng

#### An Exploration of Precalculus Students' Previous Mathematical Experiences and Current Attitudes towards Mathematics

Saloua Daouki Prof. Nadia S. Kennedy



#### Molecular Characterization of Deep-Sea "Anemones" from the Arctic

Craig Dawes Prof. Mercer R. Brugler

#### **DURA Solar Decathlon 2015**

Stephen December Prof. Alexander Aptekar

#### Polyethylene (glycol) Diacrylate (PEGDA) and Polydimethylsiloxane (PDMS) Characterization for Tissue Engineering Applications

Andres Delgado Prof. Ozlem Yasar

#### **Crash-Free Spherical Aerial Vehicle**

Jean C. Delgado-Caceres Prof. Xiaohai Li

#### **DURA Solar Decathlon 2015**

Andrade Desiree Prof. Alexander Aptekar

#### Study and Analysis of Waterborne Pathogen Transmission

Thierno Diallo Prof. Urmi Ghosh-Dastidar

#### **DURA Solar Decathlon 2015**

Hadiza Djibring Prof. Alexander Aptekar

### Radios or Sensors - Which is the Best for Semi-/Non-Autonomous Traffic?

Guershon Dorismond Prof. Zory Marantz

#### Lindenmayer System-Based Design of Engineered Tissues

Kevin Duong Prof. Ozlem Yasar

#### D & H Roebling Canal & Wurtsboro Town Masterplan

David Encarnacion Prof. Paul King

#### Data Security in Embedded Computing Devices

Johnson Esenowo Prof. Xinzhou Wei

### Sensor and Actuator Data Communication across the Internet of Things

Nicole Fauntleroy Prof. Farrukh Zia

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Marina Felamon Profs. A.E. Dreyfuss and Janet Liou-Mark

#### Comparative Study of Data Security Protocols for the Internet of Things

Farjana Ferdousy Prof. Farrukh Zia

#### Using the Next Generation Sequencing Technology to Elucidate the Microorganism Diversity in Different Water Sites in Brooklyn

Fabiola Fontaine Prof. Davida Smyth

#### **Biodiversity in Prospect Park**

Edrouine Gabriel Prof. Diana Samaroo

#### **Precedent Studies**

Edisson Garcia Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### iPractice Challenge: A Mobile App for Practicing Computer Programming

Adrian Garcia-Guzman Prof. Benito Mendoza

#### **DURA Solar Decathlon 2015**

Dominique Graci Prof. Alexander Aptekar

#### Diet with Higher Fat Calories and its Effect on Male and Female Mice

Devya Gurung Prof. Sanjoy Chakraborty





#### **Cloud Security Analysis**

Preeti Gurung Prof. Xiangdong Li

#### **DURA Solar Decathlon 2015**

Kemoy Henry Prof. Alexander Aptekar

#### Implementation of a Prototype Environmental Sensor Network

Israel Nava Hernandez Prof. Farrukh Zia

#### D & H Canal & Wurtsboro Town Masterplan

Jonathan Hernandez Prof. Paul King

#### 11 Broadway, Past and Present

Aaron Hollander Prof. Joseph Humann

#### Characterization of Staphylococci from Built Environment

Manuela Hoyos Prof. Davida Smyth

# Effect of Sequence Change in the Structure of Lignin

Veronica Elizabeth Hurtado Prof. Mai Zahran

#### Study and Analysis of Waterborne Pathogen Transmission

Olivia Hylton Prof. Urmi Ghosh-Dastidar

#### Engaging Autism Spectrum Disorders (ASD) Students in Engineering

Areeba Iqbal Prof. Melanie Villatoro

#### Annotating TTHERM\_00295170

Samuel Isaac Prof. Ralph Alcendor

#### Examining Attitudes towards Mathematics in Foundational Courses with Peer-Led Workshops

Rezwon Islam Profs. A.E. Dreyfuss and Janet Liou-Mark



#### Fourier's Gift

Rezwon Islam Prof. Satyanand Singh

#### **DURA Solar Decathlon 2015**

Jennifer Jimenez Prof. Alexander Aptekar

#### Quantitative PCR Analysis of Expression Changes in Differentiating PC12 Cells

Daenna Joseph Prof. Jeremy Seto

# Implementation of a Sensor Network as a Cyber Physical Sub-System

Farhin Kapadia Prof. Farrukh Zia

#### D & H Canal & Wurtsboro Town Masterplan

Baljinder Kaur Prof. Paul King

# Modeling Biochemical Reactions at the Molecular Level

Elizabeth Kolmus Prof. Mai Zahran

#### Superfluidity on the Nanoscale

Volodymyr Komendyak Profs. Oleg Berman and Ilya Grigorenko

#### Channel Characterization of PEGDA Based Engineered Tissue Scaffolds

Dmitry Koval Prof. Ozlem Yasar

#### Improving Java Virtual Machine Memory Utilization

Egor Kozitski Prof. Raffi Khatchadourian

#### Microbiology of the Built Environment

Manhin Lam Prof. Davida Smyth

#### Modular Quadrocoptor for Distributed Coordination

Victor Liang Prof. Xiaohai Li



#### Diet with Higher Fat Calories and its Effect on Male and Female Mice

Nicole Madrazo Prof. Sanjoy Chakraborty

#### Motivation in Microbiology: How Can Peer Led Team Learning Help with Student Motivation

Faizan Khalid Malik Prof. Davida Smyth

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Andrew Maloney Profs. A.E. Dreyfuss and Janet Liou-Mark

### DURA Solar Decathlon 2015

Chantal Manning Prof. Alexander Aptekar

#### Evaluation of Novel Nuclear Introns within the Deep-Sea

#### Black Coral Stauropathes Arctica (Cnidaria: Anthozoa: Hexacorallia: Antipatharia)

Robert Marino Prof. Mercer R. Brugler

#### Study of Protein Complex by Molecular Dynamics Simulations

Christopher Mason Prof. Mai Zahran

#### How Would a Laboratory Component Affect the Success of PLTL Workshops

Roger Brian Mason Prof. Melanie Villatoro

#### A Bootstrap-Based Repository for Epigenetic Signature of Autoimmune Diseases

Janatul Mawa Prof. Evgenia Giannopoulou

#### Difficult Vocabulary and Peer Led Team Learning Workshops

Janatul Mawa Prof. Davida Smyth



# Chronicling the Achievements & Activities of Honors Scholars at City Tech

Mandy Mei Prof. Reneta D. Lansiquot

#### Justice in Medical Ethics and Philosophy

Rose Vasthy Michel Prof. D. Robert MacDougall

#### iPractice Challenge: A Mobile App for Practicing Computer Programming

Viralkumar Mistry Prof. Benito Mendoza

#### **Case Studies in Site Analysis NYC**

Francisco Morales-Villa Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### Themes in Emerging Literature

Samiul H. Mozumder Prof. Katie Albany

#### Creating a Persistent Storage in Mobile Devices

Khadijah Okoh Prof. Marcos Pinto

#### In Search of the Ultimate Building Blocks

Adam Ounis Prof. Andrea Ferroglia

#### Radiologic Technology Students' Perception of the Use of a Video for Demonstration of Positioning of the Shoulder

Niki Patel Prof. Jennett Ingrassia

#### **Fractional Derivatives**

Yen Pham Prof. Satyanand Singh

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Rushdha Rafeek Profs. A.E. Dreyfuss and Janet Liou-Mark



#### An Exploration of Precalculus Students' Beliefs about Mathematics and Understandings of What it Means "to be good at math"

Rushdha Rafeek Prof. Nadia S. Kennedy

#### **DURA Solar Decathlon 2015**

Farhana Rahman Prof. Alexander Aptekar

#### Nonequilibrium Bose Condensation of Dipolaritons

Hasanuzzaman Rahman Prof. German Kolmakov

# Chronicling the Achievements & Activities of Honors Scholars at City Tech

Mariah Rajah Prof. Reneta D. Lansiquot

#### **DURA Solar Decathlon 2015**

Alondra Ramos Prof. Alexander Aptekar

#### **DURA Solar Decathlon 2015**

Redon Rexha Prof. Alexander Aptekar

#### **Case Studies in Site Analysis NYC**

Margarita Salas Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### A Model of Gas Exchange in the Lung

Silma Samayeen Prof. Ariane Masuda

#### **Developing Mobile Web Applications**

Elvis Rafael Sanchez JR Prof. Marcos Pinto

#### Fruit Juices as Anti-Microbials

Fauziya Sani Prof. Laina Karthikeyan

#### Getting to Grips with LaTex

Ricky Santana Prof. Samar ElHitti

#### Numerical Analysis of Waste-to-Energy Combustion Chambers

Luca Scarano Prof. Masato R. Nakamura

#### **Biodiversity in Prospect Park**

Eni Sejdini Prof. Liana Tsenova

#### Bose-Einstein Condensation of Microcavity Polaritons in the Trap

Sulav Sharma Prof. Oleg Berman

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Farjana Shati Profs. A.E. Dreyfuss and Janet Liou-Mark

#### **Case Studies in Site Analysis NYC**

Fatima Shatku Profs. Jill Bouratoglou and Lia Dikigoropoulou

#### **DNA Methylation on Patients with Lupus**

Dhavin Singh Prof. Evgenia Giannopoulou

#### Chronicling the Achievements & Activities of Honors Scholars at City Tech

Jodieann Stephenson Prof. Reneta D. Lansiquot

#### Defining the Diameter of Micropiles to Increase Structural Capacity

Sharmin Sultana Prof. Melanie Villatoro

#### Radiologic Technology Students' Perception of the Use of a Video for Demonstration of Positioning of the Shoulder

Alicia Symister Prof. Jennett Ingrassia





#### Investigation of Scaffold Fabrication Techniques: Tissue Engineering for Reducing Medical Waste and the Environmental Impacts

Joyce Tam Prof. Ozlem Yasar

# Chronicling the Achievements & Activities of Honors Scholars at City Tech

Jane Michelle Tan Prof. Reneta D. Lansiquot

#### Channel Characterization of **PEGDA Based Engineered Tissue Scaffolds**

Harold P. Tandjung Prof. Ozlem Yasar

#### **DURA Solar Decathlon 2015**

Aura Tejada Prof. Alexander Aptekar

# Lindenmayer System-Based Design of Engineered Tissues

Lydie Toussaint Prof. Ozlem Yasar

#### Effect of Garlic on TTHERM\_01194830 and TTHERM\_00295170

Jeff Toussaint Prof. Ralph Alcendor

#### Microbiology of the Built Environment

Wing Pan Kenny Tsang Prof. Davida Smyth

#### Optimization of the Spectrum of an FM Signal

Ina Tsikhanava Prof. Djafar K. Mynbaev

#### Methods for Creating APIs for Mobile Web Applications

Eric Tung Prof. Benito Mendoza

#### **Public Housing Envelope Restoration**

Claudia Tupayachi Prof. Sean O'Brien

#### **Visualization Methods of Personal Genomics**

Anwar Uddin Prof. Evgenia Giannopoulou

#### **DURA Solar Decathlon 2015**

Nwarambilli H. Ugbode Prof. Alexander Aptekar

#### Numerical Analysis of Waste-to-Energy Combustion Chambers

Usaama Abdullah Van Prof. Masato R. Nakamura

#### Sexual Harassment in the Workplace

Lillian Vazquez Prof. Horace Hutchinson

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

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A Model of Gas Exchange in the Lung

Ling Yang Prof. Ariane Masuda

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Feifei Ye Profs. A.E. Dreyfuss and Janet Liou-Mark

#### **Prospect Park Biodiversity Project**

Erica Yeboah Profs. Urmi Ghosh-Dastidar, Sandie Han, Diana Samaroo and Liana Tsenova

#### **Prospect Park Biodiversity Project**

Mallessa Yeboah Profs. Urmi Ghosh-Dastidar, Sandie Han, Diana Samaroo and Liana Tsenova

#### The Benefits of Organic Foods versus GMO Foods

Sidra Zafar Prof. Sean MacDonald





### **Emerging Scholars**

Supported by the Black Male Initiative Program

#### Getting to Grips with LaTex

Joe Nathan Abellard Prof. Samar ElHitti

#### Effect of Garlic on TTHERM\_01194830 and TTHERM\_00295170

Oluwatobi Ajayi Prof. Ralph Alcendor

#### Examining Attitudes towards Mathematics in Foundational Courses with Peer-Led Workshops

Amarou Bah Profs. A.E. Dreyfuss and Janet Liou-Mark

# Effect of Sequence Change in the Structure of Lignin

Brittiny Dhital Prof. Mai Zahran

#### Multiple Polylogarithms at Weight 4

Shannon Evans Prof. Andrea Ferroglia



Designing a Research Poster Presentation Mr. Marvin Bennet April 16, 2015

### th LaTex Florencia E. Garcia Prof. Reneta D. Lansiquot

#### Copper Binding Properties of Chelating Polyphenols

of Honors Scholars at City Tech

**Chronicling the Achievements & Activities** 

Rebecca McCurdy Prof. Alberto Martinez

#### **OP Induced Neurotoxicity**

David Owoeye Prof. Niloufar Haque

#### Chronicling the Achievements & Activities of Honors Scholars at City Tech

Walter Rada Prof. Reneta D. Lansiquot

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Jeremy Sanchez Profs. A.E. Dreyfuss and Janet Liou-Mark

#### Gender Differences in Mathematics Attitudes and Achievement in College Courses with a Peer-Led Workshop Component

Ricky Santana Profs. A.E. Dreyfuss and Janet Liou-Mark

#### Examining Attitudes towards Mathematics in Foundational Courses with Peer-Led Workshops

Marieme Toure Profs. A.E. Dreyfuss and Janet Liou-Mark





### Special Projects

#### A Graph Theoretic Approach to Puzzle Solving

**Abstract**: In this study, we examine the puzzle "Instant Insanity" which consists of four cubes with each of their six faces colored red, blue, green, and yellow. The aim of the puzzle is to stack these cubes in a column so that each side (front, back, left, and right) of the stack shows each of the four colors. We will illustrate how to figure out a possible solution by graph theoretic means. We will also show by coding in Maple, Java script and Visual basic how to solve this three dimensional puzzle. http://en.wikipedia.org/wiki/Instant\_Insanity

Sherry Ali, Eric Aung, Atif Baig, Phillip Bharath, Brian Bones, Hongliang Chen, Ingrid Espinoza, Marco Estrada, Anton Fedorov, Richard Feliz, Jibriel Hasan, Keelan Jones, So Ra Lee, Jin Lin, Leonel Lopez, Luka Machavariani, Gary Mei, Wilgene Mejias, Daniel Otero, Christopher Pan, Sunil Patel, Swastika Shrestha, Zainul Somrow, and Anthony Yorrick

Prof. Satyanand Singh

MAT 2540: Discrete Mathematics II

#### How can GIS be used to distinguish and compare recreational usage between specified Brooklyn & Queens districts in a decade?

Joe Kenny Lamothe, Juan Maturana, Bob Mendez, and Freddy Palaguachi

Prof. Hamidreza Norouzi Lab Assistant: Andrea Garrido

CMCE 4422: Introduction to Geographic Information Systems (GIS)

#### Best Places to Live in NYC! - A Method Using GIS

Elizabeth Brown, Salvatore DeCarlo, and Alicia Elia-Lewis

Prof. Hamidreza Norouzi Lab Assistant: Andrea Garrido

CMCE 4422: Introduction to Geographic Information Systems (GIS)

#### Prediction of Avalanche Extent in Himalaya Mountains Using GIS

MD Abir, Marvin Garcia, Jeffrey Gomez, and Phong Tran

Prof. Hamidreza Norouzi Lab Assistant: Andrea Garrido

CMCE 4422: Introduction to Geographic Information Systems (GIS)

#### Green Vs. Non-green Buildings, How do they make difference?

Lateef Belfor, Taminder Singh, and Waqar Tahir

Prof. Hamidreza Norouzi Lab Assistant: Andrea Garrido

CMCE 4422: Introduction to Geographic Information Systems (GIS)





#### A Living Laboratory: Revitalizing General Education for a 21st-Century College of Technology

Grant # P0315100159

#### Student Community Team: Blogging on the OpenLab

Jeanluc Antoine, Amoni Brown, Shawn Brumell, Jessica Deng, Konyca Francis, Amanda Marmol, Mandy Mei, and Brianna Vasquez **Mentors:** Scott Henkle, Jill Belli, and Jody R. Rosen

NEST Noyce Explorers, Scholars, Teachers Fostering the Creation of Exceptional Mathematics and Technology Teachers in New York City Grant #1340007

#### Noyce: Effective K-I2 STEM Education Workforce

Lusine Gasparyan Prof. Fangyang Shen



Honors Scholars Program Orientation February 5, 2015



#### NSF Louis Stokes Alliance for Minority Participation (LSAMP) in STEM

Program Coordinator: Mr. Marvin Bennett

#### LaTeX, A Document Preparation System

Joe Nathan Abellard Prof. Samar ElHitii

#### Detection of Terahertz Signals using Fiber Based Multiple Sagnac Interferometers Coupled with a Variable Stress Dependent Polarizing Material

Muhammed Abubakar Prof. Xin-Zhou Wei

### Radios or Sensors – Which is the Best for Semi/Non-Autonomous Traffic?

Amadou Bah Prof. Zory Marantz

#### Enterprise Web Application on Amazon Web Services

Ibrahima Barry Prof. Ossama Elhadary

#### **Tumor-Stromal Cross Talk in Breast Cancer**

Jean Delgado-Caceres Prof. Xiaohai Li

#### **Graph Theory and Brain Connectivity**

Thierno Diallo Prof. Urmi Ghosh-Dastidar

#### AirCasting/Air Monitor Device

Fatime Elfatimi Prof. Andy Zhang

#### Aerosol-Cloud Interaction Using Ground Based Optical Remote Sensing Instruments

Rudy Escobar Prof. Viviana Vladutescu

#### Data Security in Embedded Computing Devices and RFID

Johnson Esenewo Prof. Xinzhou Wei

#### Using Next Generation Sequencing Technology to Elucidate the Microorganism Diversity in Water Sites in Brooklyn

Fabiola Fontaine Prof. Davida Smyth



#### **DURA** Decathalon

Roger Mason Prof. Aptekar Alexander

#### Using CAD in Custom Design Medical Devices

Rachid Moumni Prof. Gaffar Gailani

#### Evaluation of Novel Nuclear Introns within the Deep-Sea Black Coral Stauropathes Arctica (Cnidaria: Anthozoa: Hexacorallia: Antipatharia)

Lysna Paul Prof. Mercer Brugler

#### The Star Chromatic Index of Complete Graphs

Marieme Toure Prof. Simon Smith

### Studying the Interaction between Chlorins in the Presence of BSA and HAS in Solution

Andrew Wills Prof. Diana Samaroo



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#### Research Experiences for Undergraduates in Satellite and Ground-based Remote Sensing at NOAA-CREST 2

NSF REU Grant # AGS-1062934 Profs. Reginald Blake, Janet Liou-Mark and Ms. Laura Yuen-Lau

Holistic Investigation of Water Pollution in the Harlem River

Augustine Amissah

Seasonal Impact on Boundary Layer Heights in a Heterogeneous Landscape Md Arefin

Identification of Phreatophytic Ecosystems Depending on Groundwater in Texas Based on NVDI Data

Keisha Baxter

Multi Instrument Classification of Atmospheric Boundary Layer Stability

Raymond Bishir



New York Transit Museum February 17, 2015



Yanna Chen

Spatial Variability of Ambient Ozone Concentrations during Three Heat Waves in the Northeast Mega Region of the United States Brittiny Dhital

Flood Prediction Based on Multidimensional Analysis of Precipitation and Inundation in the Mekong River Delta

Andrew Fitzgerald

Evaluate the Performance of Different Water Classification Algorithms to Determine Clear Sky Water Pixels in VIIRS Satellite Images

Indrajit Gurung





National Museum of the American Indian

#### **Comparison of Two Different Types of Ceilometers**

Francois Mertil

Comparison of Ground-based Soil Moisture Measurements with Satellite Data

Nyan Oo

Characterizing Arctic Land Surfaces Using a Forward Looking Infrared (FLIR) Camera

Berenice Oseguera

Creating Water Body Maps for the Pacaya Samiria, the Everglades, and the US Gulf Coast using NASA UAVSAR Imaging Radar Data

Stivaly Paulino

Summertime Wind Speed Trends in Southern California Esha Rahman

Geospatial Modelling of the Harlem River Pollution Modou Sene

A Seasonal Investigation of Heat Fluxes in the New York City Region Selma Skoko

Landsat Retrieved Surface Properties Effects on the Day Time Temperature Pattern in

New York City Awolou Sossa

Fusing Spatial Kriging with Satellite Estimates to Obtain a Regional Estimation of PM2.5 Daniel Vidal



NYC Fire Department C-14 Certificate of Fitness Associate Provost Pamela Brown March 26, 2015



#### The Black Male Initiative, Perkins VTEA, and CUE Funding

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**MEDU 2901:** Peer Leader Training in Mathematics

IS 901: Independent Study

The Effects of Self-Efficacy in Mathematics Courses with Peer-Led Workshops

Amarou Bah, Rezwon Islam, and Marieme Toure

Gender Differences in Attitudes and Achievement in Intermediate Algebra, Geometry, and Trigonometry with a Peer-Led Workshop Component

Marina Felamon, Jeremy Sanchez, and FeiFei Ye

**Motivation in Microbiology: How can Peer Led Team Learning Help with Student Motivation** Faizan Malik



Developing and Delivering Effective Research Poster Presentations Prof. Jody Rosen March 26, 2015



Gender Differences in Attitudes and Achievement in Calculus I with a Peer-Led Workshop Component

Andrew Maloney and Irania Vazquez

Difficult Vocabulary and Peer Led Team Learning Workshops Janatul Mawa

Gender Differences in Attitudes and Achievement in Precalculus with a Peer-Led Workshop Component

Rushdha Rafeek, Ricky Santana, and Farjana Shati

What hints help motivate students in College Algebra and Geometry (MAT | 175)?

Noura Yasin



Cultivating Fine Dining Etiquette Prof. Karen Goodlad March 3, 2015



The Statue of Liberty and Ellis Island April 3, 2015





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