EXPLORATIONS 2016
RESEARCH, SCHOLARSHIP AND CREATIVE EXPRESSION
AT WILLIAM PATERNSON UNIVERSITY • APRIL 9 TO APRIL 22
EXPLORATIONS 2016:
Research, Scholarship and Creative Expression at William Paterson University

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Poster and Cover Art
Tom Uhlein, Art Department
Advancing Research, Scholarship and Creative Expression Conference

Friday, April 22
9:30 to 2:30
Morning Plenary
Positioning Your Research for National Recognition

Keynote Speaker
Dean. Jeffrey Osborn, School of Science.
The College of New Jersey
And Past President,
Council for Undergraduate Research

Concurrent Discussion Sessions

Poster Sessions
Tuesday, April 21 to Thursday, April 22 12:30 to 1:45

Honors Week
Student Research Presentations
Tuesday, April 21 to Thursday, April 22 9:30 to 4:30

College and Council Sponsored Presentations

Tuesday, April 19
11:00 College of Arts and Communication
11:00 Technology Across the Curriculum Committee
2:00 Cotsakos College of Business

Wednesday, April 20
11:00 College of Humanities and Social Sciences

Thursday, April 21
11:00 College of Education
11:00 &
2:00 College of Science and Health

10th Annual Undergraduate Research Symposium
Saturday, April 9
8:00 to 5:30
Poster Sessions
Alumni Panel
Award Ceremony

Plenary Speaker
Prof. Liz Nolan
Chemistry Department. Massachusetts Institute of Technology

David and Lorraine Cheng Library
Authors Reception
Office of Sponsored Programs
Award Recipient Recognition
Tuesday, April 19 3:30

Mathematical Association of America-NJ Garden State Undergraduate Mathematics Conference

Saturday, April 16
8:30 to 5:00
Invited Speakers
Patrick X. Rault, State University of New York (SUNY), College at Geneseo
Stephen F. Kennedy, Carleton College and MAA Press
Eugene Fiorini, Muhlenberg College

UPS Computer Information Technology Distinguished Lecture
Department of Computer Science

Wednesday, April 13 5:30
Invited Speaker:
Andy Dotterweich, Information Services General & Administrative Portfolio Manager, UPS

Keynote Speaker:
Mung Chiang, Arthur LeGrand Doty Professor of Electrical Engineering, Princeton University
EXPLORATIONS 2016
Research, Scholarship and Creative Expression at William Paterson University

Welcome to EXPLORATIONS 2016! For the past seventeen years, the Office of Sponsored Programs and the Faculty Senate Research and Scholarship Council has brought the William Paterson community “University Research and Scholarship Day.” Originally started as “University Research Day” in 1999, it was a single day event for faculty and students to share their recent scholarly research and creative works. The first program just included concurrent presentations in the morning and afternoon. In the years that followed, additional activities were added including poster sessions as well as the College and campus council and committee arranged, or “sponsored” presentations. In 2001 it became “University Research and Scholarship Day”, which is what it had been called until this year. In 2015 the number of days was expanded to three with poster sessions scheduled for every day and other events included as well. Fueled on inspiration from Provost Sandmann, and with the cooperation with the Honors College, the Undergraduate Research Symposium, the Cheng Library, and others on campus, we have developed this new program: EXPLORATIONS.

EXPLORATIONS continues the foundation set by “University Research and Scholarship Day,” a more expansive and inclusive schedule of events will run from April 9 to April 22. The new structure creates more opportunities for sharing of research and creative works across discipline boundaries to bring together the entire campus community.

The inaugural year of EXPLORATIONS will have eight distinct events: the 10th Annual Undergraduate Research Symposium, the Honors Week Student Research Presentations, the Cheng Library New Authors Reception, College and Council Sponsored Presentations, the 2016 Garden State Undergraduate Mathematics Conference of the Mathematics Associate of American—NJ, a UPS Distinguished Lecture courtesy of the Computer Science Department, Poster Presentations, and Advancing Research, Scholarship and Creative Expression at WP: a Conference.

William Paterson University’s symbol is the pioneer. A pioneer is someone who does something, or goes somewhere, that few, if any, have before. A pioneer looks for opportunities to leave their mark by researching or working on new and exciting topics. But this alone does not make a pioneer. For it is the sharing with others of this gained knowledge and insight that is the most important responsibility a pioneer has. And that is what we showcase here with EXPLORATIONS. Here we have presenters who recognized areas of need and took it upon themselves, with the help of offices, organizations, and colleagues to address those needs to benefit others.

The Office of Sponsored Programs would like to thank the Research and Scholarship Council, everyone previously involved in the Research and Scholarship Day, and the participants and presenters from over the years. Special thanks are offered to the Faculty Senate and the Office of the Provost for their inspiration, guidance and encouragement. We would especially like to thank some individuals who committed much time and effort over the years: Professor Frank Pavese from the Music Department, the late Dr. Amy Job from the Library, Dr. David Gilley and Dr. Jorge Arevalo, and Dr. Pixy Ferris from the Communications Department.

Happy Exploring!

Martin Williams
Office of Sponsored Programs
EXPLORATIONS 2016
Research, Scholarship and Creative Expression at William Paterson University

Saturday, April 9 to Friday, April 22

April 9  Saturday
10th Annual Undergraduate Research Conference

April 13  Wednesday
UPS Distinguished Lecture, Department

April 16  Saturday
Mathematical Association of America-NJ/Garden State Undergraduate Mathematics Conference

April 19  Tuesday
Honors Week Student Research Presentations
College and Council Sponsored Presentations:
   College of Arts and Communication
   Technology Across the Curriculum
   Cotsakos College of Business
Poster Session
Cheng Library New Authors Reception and
Office of Sponsored Programs Recognition of Award Recipients

April 20  Wednesday
Honors Week Student Research Presentations
College and Council Sponsored Presentations
   College of Humanities and Social Sciences
Poster Session

April 21  Thursday
Honors Week Student Research Presentations
College and Council Sponsored Presentations:
   College of Science and Health
   College of Education
Poster Session

April 22  Friday
Advancing Research, Scholarship and Creative Expression at William Paterson University Conference
The University Honors College at William Paterson University is a place where academically gifted students explore new ideas and engage in intellectual and creative collaborations with experienced and dedicated members of the faculty. It offers a rigorous curriculum with a challenging array of courses, seminars, and co-curricular activities. The University Honors College provides a comprehensive educational experience that brings together the academic, residential, social, and cultural experiences of its students. It is open to students in all colleges and majors. Nearly 400 students are currently enrolled in the Honors College. Students may enter the Honors College through a first-year program in which they participate in clustered or other Honors courses in the University Core Curriculum. Subsequently, they pursue an interest through one of the 10 honors tracks, in addition to the disciplinary major. Most tracks consists of four to five upper-level courses, overlapping with or in addition to courses in the student’s major, and a written thesis or creative project.

“The Honors College is much more than a distinction—it is the University’s greatest resource: a community of individuals who understand the importance of knowledge, creation, and personal accomplishment.”

— Caroline Sanchez ’13
Performing and Literary Arts Track

www.wpunj.edu/honors-program
10th Annual Undergraduate Research Symposium

Presentation Schedule
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A SPECIAL 10TH YEAR CELEBRATION OF
THE UNDERGRADUATE RESEARCH SYMPOSIUM

Few activities are as rewarding as research to the motivated students as well as faculty mentors. In addition to the acquisition of invaluable research skills, students learn how knowledge is created and experience the excitement of the “eureka moment”. To celebrate undergraduate achievements, a research symposium has been held since 2007 on WPUNJ campus for students in biological, chemical and environmental sciences. This symposium provides an opportunity to the students to showcase their talents and share their research achievements with their peers from about twenty universities from Tri state area.

We would like to welcome all of you to an exciting 10th year celebration of Undergraduate Research Symposium at William Paterson University. This is an example of a budding community of undergraduate researchers. We want to thank all the students from past and current who participated in the symposium and shared their research with us. We also want to thank all research mentors (from more than 34 colleges and universities from Tri State area and beyond) have made it possible by investing their time, knowledge, resources and energy, so that undergraduates gain their first hand research experiences.

We would like to express our sincere gratitude to all our alumni for their efforts and participation which help strengthen our research community. Thank you for continuing to be ambassadors for the WPU Alumni Association.

We express our gratitude to all student volunteers who has shown great enthusiasm and worked very hard to make this symposium a success. We are very much obliged to Dr. Elizabeth Nolan (MIT) for accepting our invitation as a keynote speaker and investing her valuable time to be with us. Awards for the best presentations were sponsored by C.K. Warner funds from Biology Dept. We also would like to thank Drs. David Slaymaker and Bhanu Chauhan (Chairs of Biology and Chemistry Departments) for their continued
We also want to thank the office of Institutional Advancement and Alumni Association for partly financing and supporting the event in various capacities. This symposium could not have been successful without the moral support and continuous help from Drs. Wolf and Fuller-Stanley who worked very diligently with us so that everything is put together in a professional manner. Our special thanks to Dr. Sandy DeYoung (Emeritus Dean), under whose direction and guidance this symposium was initiated.

The symposium of this magnitude was only possible with all the support we got from Dr. Sandmann Warren (Provost & vice President of Academic Affairs). Last but not the least, we extend our gratitude to President Kathleen Waldron for her leadership who continuously encouraged us and inspired us with her ideas to make this symposium a great success.

ORGANIZERS
Dr. Jaishri Menon
Dr. Bhanu P. S. Chauhan
The global public health problems of infectious disease and antibiotic resistance motivate our bioinorganic investigations of the host/pathogen interaction. Metal ions are essential nutrients for all organisms, and metal-ion withholding is one accepted mechanism of innate immunity. Inspired by the structures and biological functions of human host-defense proteins that participate in this metal-ion withholding response, we aim to achieve molecular-level and quantitative depictions of how these biomolecules contribute to innate immunity, metal homeostasis, and physiology. In one thrust, we are investigating the metal-sequestering antimicrobial protein calprotectin. This host-defense protein is released by neutrophils and epithelial cells, and exerts antimicrobial activity attributed to its ability to sequester transition metals from microbes. Our central hypotheses are that calprotectin (i) contributes to human physiology in multiple contexts, (ii) responds to local environmental stimuli and thereby exists in multiple structural forms that have particular physiological roles, and (iii) participates in the homeostasis of metals in broad terms. Here, we describe our bioinorganic studies of human calprotectin, which reveal remarkable biological coordination chemistry essential for its function as an antimicrobial agent. Each calprotectin heterodimer exhibits six distinct metal-binding sites, and we report our discovery that calprotectin employs Ca(II) ions to tune its affinity for first-
row transition metal ions. This mechanism allows for calprotectin to switch between relatively low and high affinity forms, and effectively turn on its metal-sequestering function when Ca(II) levels are high. We also consider how calprotectin may work cooperatively with other host-defense proteins to prevent microbial growth.

About Professor Nolan

Liz Nolan was raised in Niskayuna, New York and graduated magna cum laude from Smith College in 2000 with highest honors in chemistry and a minor in music. As an undergraduate, she conducted computational research with Professor R. G. Linck, was elected into Phi Beta Kappa, and received a Fulbright Scholarship. Liz conducted her graduate studies in inorganic chemistry at the Massachusetts Institute of Technology, where she joined the laboratory of Professor Stephen J. Lippard. Her doctoral work focused on the synthesis, characterization, and application of small-molecule fluorescent sensors for detecting zinc in biological samples and mercury in aqueous solution. She was a recipient of a NDSEG graduate fellowship and a National Young Investigator Award from the ACS Division of Inorganic Chemistry. Liz pursued post-doctoral research in the laboratory of Professor Christopher T. Walsh at Harvard Medical School where she investigated the biosynthetic assembly of microcin E492m, an antibiotic “Trojan horse” peptide that targets Gram-negative bacteria expressing siderophore uptake pumps. Liz joined the Department of Chemistry at MIT as an Assistant Professor in 2009 and was promoted to Associate Professor in 2014. Her current research interests include synergies between metal ion homeostasis and immunity, and the roles of host-defense peptides and metalloproteins in various biological phenomena. Liz received a 2010 NIH New Innovator Award and a 2014 NSF CAREER, and was named a Searle Scholar in 2011, an Alfred P. Sloan Foundation Fellow in 2013, and a Camille Dreyfus Teacher-Scholar in 2014. She is the recipient of the 2016 Eli Lilly Award in Biological Chemistry.
SYMPOSIUM ORGANIZING COMMITTEE

ORGANIZERS
Dr. Jaishri Menon
Dr. Bhanu P. S. Chauhan

Committee Members
Dr. Jean Fuller-Stanley
Dr. Michael Peek
Dr. Eileen Gardner
Dr. Jeung Woon Lee
Dr. Carey Waldburger
Dr. Pradeep Patnaik
Dr. Yalan Xing
Dr. Parminder Kaur
Dr. Mihaela Jitianu
Dr. Emily Monroe
Dr. Mukesh Sahni
Ms. Karyn Lapadura
SCHEDULE OF EVENTS

8:00 a.m. - 8:45 a.m.  Registration & Breakfast
                      Ballroom

8:45 a.m. - 9:15 am   Welcome and Opening Remarks
                      Dr. Warren Sandmann
                      Provost & Sr. VP for Academic Affairs

9:15 a.m. - 11:15 a.m. POSTER SESSION A
                      Behavior: B 1 to B 6
                      Cell & Molecular Biology I: C & M 1 to C & M 7
                      Ecology, Evolution & Environmental Science I: E 1 to E7
                      Physiology & Toxicology: P & T  1 to P & T 11
                      Biochemistry:  BC 1 to BC 9
                      Nanochemistry: NC1 to NC 8
                      Organic Chemistry: OC 1 to OC 9

11:45 a.m. - 1:00 p.m. LUNCH & TOUR
                      Wayne Dining Hall

1:00 p.m. - 2:00 p.m.  PLENARY TALK
                      Dr. Liz Nolan
                      MIT, Chemistry Department
SCHEDULE OF EVENTS CONTINUED

2:00 p.m. - 4:00 p.m. POSTER SESSION B

Cell & Molecular Biology II: C & M 7 to C & M 12
Cell & Molecular Biology III: C & M 13 to C & M 19
Ecology, Evolution & Environmental Science II: E 8 to E 15
Genetics: G 1 to G 8

Computation & Physical Chemistry: C & P 1 to C & P 9
Inorganic and Bioanalytical Chemistry: I B A C 1 to I B A C 6
Materials Chemistry: M C 1 to M C 8

4:00 p.m. - 5:00 p.m. ALUMNI PANEL - Ballroom

5:00 p.m. AWARDS CEREMONY - Ballroom
## Behavior

**Judges:**  Dr. Robert Benno*  
Dr. Brian Olechnowski  
Dr. Drew Cressman

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*Coordinator
**Cell & Molecular Biology I**

**Judges:**  Dr. David Slaymaker*  
Dr. Ann Aguanno  
Dr. James Fabrizio  
Dr. Balwant Chohan

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*Coordinator
Ecology, Evolution & Environmental Science I

Judges:  Dr. Michael Sebetich*  
Dr. Alice Benzecry  
Dr. Juyong Ha  
Dr. Karen Swanson

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*Coordinator*
### Physiology & Toxiology

**Judges:**  
Dr. Eileen Gardner*  
Dr. Patricia Melloy  
Dr. Michelle Hersh  
Dr. Terry Kamps  
Dr. Meriem Bandaoud  
Dr. Sonya Arora

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         Dr. Kyle Murphy
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*Coordinator*
Nanochemistry

Judges: Dr. Yalan Xing*
       Dr. Yufeng Wei
       Dr. Andrei Jitianu
       Dr. Colin Abernethy

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*Coordinator*
Organic Chemistry

Judges:  
Dr. Jay Foley*  
Dr. David Sabatino  
Dr. Mihaela Leonida  
Dr. Alfredo Castro

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# Cell & Molecular Biology II

**Judges:**
- Dr. Joseph Spagna*
- Jennifer Urban
- Dr. Cathryn Kubera

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# Cell & Molecular Biology III

**Judges:**
- Dr. David Slaymaker*
- Dr. Ann Aguanno
- Dr. James Fabrizi
- Dr. Balwant Chohan

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*Felix Zamora* and Dr. Hun Bok Jung; Department of Geoscience and Geography, New Jersey City University, Jersey City, NJ

*Coordinator*
# Genetics

**Judges:**
- Dr. Emmanuel Onaivi*
- Dr. Edith Myers
- Dr. Maria Agapito
- Dr. Gloria Anderle

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*Coordinator
## Computational & Physical Chemistry:

### Judges:
- Dr. Mihaela Jitianu*
- Dr. Colin Abernethy
- Dr. Andrei Jitianu
- Dr. Karen Swanson

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### CP 2
**USING DIFFERENT COMPUTATIONAL AND EXPERIMENTAL SPECTROSCOPIES TO DEMONSTRATE PHOSPHATE AND METAL INTERACTION AT DIFFERENT PH’S; Roksana Azad**, Muhaned Mohamed, Pamela Lebron, and Dr. Ruel Z.B. Desamero; Department of Chemistry, CUNY-York College, Jamaica, NY

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**SCATTERING MEDIATED HOT-ELECTRON TRANSFER: A NEW PARADIGM FOR LIGHT-DRIVEN ENERGY TRANSFER; Jessica Czarnecki, Noor Eldabagh**, Jason Coddington, Juan Pulgarin, and Dr. Jay Foley, Department of Chemistry, William Paterson University, Wayne, NJ

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*Coordinator*
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**Judges:**
- Dr. Yalan Xing*
- Dr. Jay Foley
- Dr. Dmytro Kosenkov
- Dr. Seung-Sup Kim

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<td>EXPLORING THE NEW HORIZONS OF MES-BIAN VANADIUM CHEMISTRY; Noriyo Onishi¹, Gabrielle Risica¹, Namkhang Tsdamchoe¹, Julie Nicklas², Dr. Colin Abernethy¹, and Dr. John Gorden²; ¹Department of Chemistry, Sarah Lawrence college, New York, NY; ²Department of Chemistry, Auburn University, Auburn, AL</td>
<td>134</td>
</tr>
</tbody>
</table>
Materials Chemistry:

Judges:  Dr. Parminder Kaur*
        Dr. Agnes Berki
        Dr. Alfredo Castro

<table>
<thead>
<tr>
<th>Poster #</th>
<th>Title, Author(s), Affiliation(s)</th>
<th>Page #</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 1</td>
<td>Mg-Fe LAYERED DOUBLE HYDROXIDES STRUCTURE AND MORPHOLOGY; *David Akpatsu¹, Jonathan Gabriel¹, Aarti Patel¹, Dr. Andrei Jitianu², and Dr. Mihaela Jitianu¹; ¹Department of Chemistry, William Paterson University, Wayne, NJ; ²Department of Chemistry, CUNY-Lehman College, West Bronx, NY</td>
<td>135</td>
</tr>
<tr>
<td>M 2</td>
<td>STUDY OF FORMATION OF HYDROXYAPATITE; Martin Kowaleff, Naphtali O’Connor and Dr. Andrei Jitianu; Department of Chemistry, CUNY-Lehman College, West Bronx, NY</td>
<td>136</td>
</tr>
<tr>
<td>M 3</td>
<td>MATERIALS-BY-DESIGN APPROACH TO THERMAL AND SOLAR ENERGY CONVERSION; Ashley McDonnell, Alex Moyer, Matthew Bogacz, and Dr. Jay Foley; Department of Chemistry, William Paterson University, Wayne, NJ</td>
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<tr>
<td>M 4</td>
<td>STUDY OF TiO2 AND ZnO SEMICONDUCTORS AND EFFECTS ON BINDING; Shiv Misra and Dr. Elena Galoppini, Chemistry Department, Rutgers University, Newark, NJ</td>
<td>138</td>
</tr>
<tr>
<td>M 5</td>
<td>A COMPARATIVE ANALYSIS OF NEW GENERATION METAL-IMPREGNATED NANOMATERIALS; *Kelly Moran, Aarti Patel, Qiaxian Johnson, and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ</td>
<td>139</td>
</tr>
<tr>
<td>M 6</td>
<td>THE SYNTHESIS OF DENDRITIC CONSTRUCTS VIA HYDROSILYLATION; Glory Nkak, Saadia Chaudry, Aarti Patel, and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ</td>
<td>140</td>
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</tbody>
</table>

Materials Chemistry--------------------------------- Continued on Next Page
M 7  COMPARATIVE STUDY OF MELTING GELS BEHAVIOR;  

_Gabriela Rodriguez¹, Tim McClurg², Dr. Mihaela Jitianu², Dr. Andrei Jitianu¹, and Dr. Lisa Klein³; ¹Department of Chemistry, Lehman College, CUNY, Davis Hall, West, Bronx, NY  
²Department of Chemistry, William Paterson University of New Jersey, Wayne, NJ; ³Department of Materials Science and Engineering, Rutgers University, Piscataway, NJ

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M 8  Co(II)- Ni(II)- And Mg(II)- LAYERED HYDROXIDES COMPARATIVE STUDY; _Feras Saifan¹, David Akpatsu¹, Dr.Andrei Jitianu² and Dr. Mihaela Jitianu¹; ¹Department of Chemistry, William Paterson University, Wayne, NJ; ²Department of Chemistry CNNY-Lehman College, West Bronx, NY

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*Coordinator*
UPS Computer Information Technology Distinguished Lecture Series

Department of Computer Science
UPS Computer Information Technology Distinguished Lecture Series*

Keynote Speaker: Dr. Mung Chiang
Arthur LeGrand Doty Professor of Electrical Engineering
Princeton University

April 13, 2016 (Wednesday), 5:30 PM – 8:30 PM
SCIE 2064
(A causal dinner will be provided.)

SDP: Smart Data Pricing from Theory to Deployment

Abstract

Technology and economics are intertwined in our networked life. In mobile and in cloud, Smart Data Pricing asks the questions: “how to charge services,” “whom to charge it to,” and “what to charge it for.” Usage pricing, peak-valley pricing, open toll-free, and spot pricing are some of the examples where theory is rapidly turning into deployment around the world. Through a combination of modeling, analysis, system architecture, implementation, and user trials, SDP holds the promise of creating win-win across network operators, content providers, and consumers.
**Biography**

Mung Chiang is the Arthur LeGrand Doty Professor of Electrical Engineering at Princeton University. The recipient of the 2013 Alan T. Waterman Award, the highest honor to young scientists in U.S., and the 2012 IEEE Kiyo Tomiyasu Award, he has worked on the analysis, design and optimization of networks in areas such as NUM, SDP and Fog. He created the Princeton EDGE Lab in 2009 to bridge the theory-practice divide in networking, especially edge networking, resulting in technology transfers to industry and a few startup companies. He is also the academia cofounder of the global nonprofit Open Fog Consortium. He serves as the inaugural Chairman of Princeton Entrepreneurship Council and Director of Keller Center for Innovation in Engineering Education at Princeton. His Massive Open Online Courses on Networked Life reached over 250,000 students and the textbook received the 2013 Terman Award from American Society of Engineering Education. He was named a Guggenheim Fellow in 2014.

* The UPS Computer Information Technology Distinguished Lecture Series is made possible by a generous grant from the UPS Foundation of UPS.

---

**Agenda**

5:30 – 6:00  
Guests arrive, dinner starts

6:00 – 6:10  
Welcome address from Dr. Kenneth Wolf, Dean of College of Science and Health

6:10 – 6:30  
Invited Speaker: Mr. Andy Dotterweich, Information Services General & Administrative Portfolio Manager, UPS

6:30 – 6:35  
Keynote Speaker Introduction: Dr. Cyril Ku

6:35 – 7:20  
Keynote Speech: Dr. Mung Chiang, Arthur LeGrand Doty Professor of Electrical Engineering, Princeton University

7:20 – 7:30  
Q & A with Dr. Chiang

7:30 – 7:40  
Wrap up and thank attendees and speakers, Dr. Ku

7:40 – 8:30  
Refreshments and student conversations with Mr. Dotterweich and Dr. Chiang

All are welcome. This lecture series is open to everyone in the William Paterson University community. For further information, please contact Dr. Cyril S. Ku (kuc@wpunj.edu), Department of Computer Science, William Paterson University, Wayne, New Jersey.
Mathematical Association of America—NJ

Garden State Undergraduate Mathematics Conference
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 9:15</td>
<td>Registration, lobby outside UC (University Commons) ballrooms (Registration closes at noon); Coffee, Ballroom B</td>
<td></td>
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<tr>
<td>8:30 – 1:30</td>
<td>Book Exhibits; lobby outside UC ballrooms</td>
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<tr>
<td>9:15 – 9:30</td>
<td>Welcome by Dr. Kenneth Wolf, Dean of the College of Science and Health; Ballroom C</td>
<td></td>
</tr>
<tr>
<td>9:30 – 10:20</td>
<td>Inquiry-Based Learning in College Mathematics, Patrick Rault, Dickinson College. Presider: Zachary Kudlak, Monmouth University; Ballroom C</td>
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<tr>
<td>10:25 – 10:40</td>
<td>Business Meeting and By-laws Approval; Ballroom C</td>
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<tr>
<td>10:40 – 11:05</td>
<td>Break; Ballroom B</td>
<td></td>
</tr>
<tr>
<td>11:05 – 11:55</td>
<td>Two Heads are Better Than None, Or, Me and the Fibonaccis, Steven F. Kennedy, Carleton College and MAA Press. Presider: Grace Cook, Bloomfield College; Ballroom C</td>
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</tr>
<tr>
<td>12:00 – 1:30</td>
<td>Lunch; Wayne Dining Hall</td>
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<tr>
<td>1:00 – 2:00</td>
<td>Student Poster Session</td>
<td>Ballroom B</td>
</tr>
<tr>
<td>1:30 – 2:45</td>
<td>Workshop: Teaching Differential Equations in a Modeling First Environment and a Supporting Community at SIMIODE, Brian Winkel, Emeritus, Mathematical Sciences, US Military Academy, West Point NY, and Director SIMIODE. Ballroom A</td>
<td>Ballroom A</td>
</tr>
<tr>
<td></td>
<td>Contributed Paper Sessions; UC 168A</td>
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<tr>
<td>2:30 – 3:15</td>
<td>Student Talks; UC 171A and 171B</td>
<td></td>
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<tr>
<td>2:45 – 3:30</td>
<td>Break; Ballroom B</td>
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<tr>
<td></td>
<td>3:30 is the deadline for door prize/silent auction entries</td>
<td></td>
</tr>
<tr>
<td>3:30 – 4:25</td>
<td>Criminal Investigation Through Mathematical Examination, Eugene Fiorini, Muhlenberg College. Presider: Aihua Li, Montclair University; Ballroom C</td>
<td></td>
</tr>
<tr>
<td>4:30 – 5:00</td>
<td>Prizes and Awards; GSUMC awards, door prizes, and silent auction winners (must be present to win); Ballroom C</td>
<td></td>
</tr>
<tr>
<td>5:30</td>
<td>Dinner Honoring Speakers</td>
<td></td>
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<tr>
<td>Time</td>
<td>Event</td>
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<td>-----------------------------------------------------------------------</td>
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<tr>
<td>8:30 – 9:15</td>
<td><strong>Team Registration, Student Check-in, and Breakfast;</strong> Outside SCIE (Science Hall East 2063/2064)</td>
<td></td>
</tr>
<tr>
<td>9:30 – 10:30</td>
<td><strong>New Jersey Undergraduate Math Competition;</strong> Individual competition. SCIE 2063/2064</td>
<td></td>
</tr>
<tr>
<td>10:30 – 12:00</td>
<td><strong>New Jersey Undergraduate Math Competition;</strong> Team competition. SCIE 2063/2064</td>
<td></td>
</tr>
<tr>
<td>12:00 – 1:00</td>
<td><strong>Complimentary Student Lunch;</strong> outside SCIE 2063/2064</td>
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</tr>
<tr>
<td>1:00 – 2:00</td>
<td><strong>Student Poster Session;</strong> Ballroom B</td>
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<tr>
<td>2:15 – 3:15</td>
<td><strong>Student talks;</strong> UC 171A and 171B</td>
<td></td>
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<tr>
<td>3:15 – 3:30</td>
<td><strong>Break;</strong> Ballroom B</td>
<td></td>
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<tr>
<td>3:30 – 4:25</td>
<td><strong>Criminal Investigation Through Mathematical Examination</strong> Eugene Fiorini, Muhlenberg College. Presider: Aihua Li, Montclair University; Ballroom C</td>
<td></td>
</tr>
<tr>
<td>4:30 – 5:00</td>
<td><strong>Prizes and Awards;</strong> GSUMC awards, door prizes, silent auction winners (must be present to win); Ballroom C</td>
<td></td>
</tr>
</tbody>
</table>
Honors Week
Student Research Presentations

Presentation Schedule
HONORS WEEK

in conjunction with

EXPLORATIONS 2016
Research, Scholarship, and Creative Expression
at William Paterson

SCHEDULE AT A GLANCE

TUESDAY, APRIL 19
12:30—4:45, UC 168 A/B
Presentations by students in the following Honors tracks:
Music, Biology, Social Sciences, and Clinical Psychology & Neuropsychology.

7:00 — 9:00 P.M.
Cheng Library Auditorium
Presentations by students in the Honors Performing and Literary Arts Track.
Reception follows in the Library Friends’ Lounge.

WEDNESDAY, APRIL 20
10:30 — 5:00 P.M., UC 168 A/B
Presentations by students in the following Honors Tracks:

THURSDAY, APRIL 21
9:30—5:30 P.M., UC 168 A/B
Presentations by students in the following Honors Tracks:
Nursing, Cognitive Science, and Independent.

ABOUT HONORS WEEK AND EXPLORATIONS 2016...

Each spring, the Honors College showcases the work of students who are completing one of the Honors College tracks, and recognizes the faculty and staff members who have contributed to their success. Congratulations to all of the outstanding individuals who are participating in Honors Week/Explorations 2016!

This year, Honors Week has been incorporated into “Explorations 2016,” an exciting two-week event, recognizing the research, scholarship, and creative expression that takes place in many departments across campus.

For more information about Explorations 2016, please visit: http://www.wpunj.edu/osp/explorations/.

Please see the following pages for the full listing of Honors presentations and more information about the presenters.
### Tuesday, April 19
**UC 168 A/B**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30</td>
<td>Daniel Raycraft (MUS)</td>
</tr>
<tr>
<td>12:45</td>
<td>Dana Weaver (BIO)</td>
</tr>
<tr>
<td>1:00</td>
<td>Stephanie Costa (BIO)</td>
</tr>
<tr>
<td>1:15</td>
<td>Tonee Burley (SSH)</td>
</tr>
<tr>
<td>1:30</td>
<td>Elena Grady (SSH)</td>
</tr>
<tr>
<td>1:45</td>
<td>Jaclyn Mako (SSH)</td>
</tr>
<tr>
<td>2:00</td>
<td>Kristen Megargee (SSH)</td>
</tr>
<tr>
<td>2:15</td>
<td>BREAK</td>
</tr>
<tr>
<td>2:30</td>
<td>Courtnaey Chelf (CP)</td>
</tr>
<tr>
<td>2:45</td>
<td>Brianna Kowalsky (CP)</td>
</tr>
<tr>
<td>3:00</td>
<td>Michelle LeGrand (CP)</td>
</tr>
<tr>
<td>3:15</td>
<td>Ashley Mondragon (CP)</td>
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<tr>
<td>3:30</td>
<td>Angelica Urbina (CP)</td>
</tr>
<tr>
<td>3:45</td>
<td>Christina Angelo (CP)</td>
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<tr>
<td>4:00</td>
<td>Amanda Blazkiewicz (CP)</td>
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<tr>
<td>4:15</td>
<td>Julia Kolak (CP)</td>
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<tr>
<td>4:30</td>
<td>Bethan Shipway (CP)</td>
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</table>

### Wednesday, April 20
**UC 168 A/B**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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<tbody>
<tr>
<td>10:30</td>
<td>Brielle Liebman (IND)</td>
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<tr>
<td>10:45</td>
<td>Unnati Chauhan (IND)</td>
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<tr>
<td>11:00</td>
<td>Timothy Greendyk (LSEE)</td>
</tr>
<tr>
<td>11:15</td>
<td>Rebecca Atencio (BP)</td>
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<tr>
<td>11:30</td>
<td>Stephanie Spies (BP)</td>
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<tr>
<td>11:45</td>
<td>Anna Stienstra (BU)</td>
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<tr>
<td>12:00</td>
<td>Michael Parmese (BU)</td>
</tr>
<tr>
<td>12:15</td>
<td>Brianna Campo (BU)</td>
</tr>
<tr>
<td>12:30</td>
<td>BREAK</td>
</tr>
<tr>
<td>12:45</td>
<td>Kevin Lenihan (BU)</td>
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<tr>
<td>1:00</td>
<td>Corey Lacoppola (BU)</td>
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<tr>
<td>1:15</td>
<td>Aviv Florenthal (BU)</td>
</tr>
<tr>
<td>1:30</td>
<td>BREAK</td>
</tr>
<tr>
<td>1:45</td>
<td>Franziska Federico (HUM)</td>
</tr>
<tr>
<td>2:00</td>
<td>Joseph Snider (HUM)</td>
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<tr>
<td>2:15</td>
<td>Renee Pendergast (HUM)</td>
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<tr>
<td>2:30</td>
<td>Gabby Salvador (HUM)</td>
</tr>
<tr>
<td>2:45</td>
<td>Mohammad Marey (HUM)</td>
</tr>
<tr>
<td>3:00</td>
<td>Jonathon Dragon (HUM)</td>
</tr>
<tr>
<td>3:15</td>
<td>BREAK</td>
</tr>
<tr>
<td>3:30</td>
<td>Eve Lily Galen-Harris (HUM)</td>
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<tr>
<td>4:00</td>
<td>Jenna Schreck (HUM)</td>
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<tr>
<td>4:15</td>
<td>Kyle Nicole Deveza (HUM)</td>
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<tr>
<td>4:30</td>
<td>Hannah Frankovits (SSH)</td>
</tr>
<tr>
<td>4:45</td>
<td>Cherilyn Conner (CGSI)</td>
</tr>
</tbody>
</table>

### Performing & Literary Arts Track Presentations
Tuesday, 4/19—7:00 p.m.
Cheng Library Auditorium
(order to be announced)

- Nicole Alexander
- Amanda Brady
- Kaitlin Elliott
- Kimberly Keppler
- Joshua Morovian
- Matthew Orso
- Mateusz Pala
- Sin Yeong Park
- Rachael Segal
- Melissa Silvestri
- Daniel Simon
- Kristina Sternesky
- Brittany Warther
- Kristi Lee Young

Reception follows in the Library Friends’ Lounge next door to the Auditorium.

### TRACK CODES

- **BP** Biopsychology
- **BIO** Biology
- **BU** Business
- **CGSI** Cognitive Science
- **CP** Clinical Psy. & Neuropsychology
- **HUM** Humanities
- **IND** Independent
- **LSEE** Life Science & Env. Ethics
- **MUS** Music
- **NUR** Nursing
- **SSH** Social Sciences

---

- **Jessica Couper (NUR)**
- **Precious Factora (NUR)**
- **Amberly Gurbisz (NUR)**
- **Xiana Gutierrez (NUR)**
- **Emily Houwen (NUR)**
- **Anoush Kalachian (NUR)**
- **Abbi Lamparelli (NUR)**
- **Nicole Leal (NUR)**
- **Cara Mutia (NUR)**
- **Marisa Rapisardi (NUR)**
- **Danielle Landayan (NUR)**
- **Xanilyn Red (NUR)**
- **Amanda Uhlrick (NUR)**
- **Carolyn Woyce (NUR)**
- **Michael Grella (CGSI)**
- **Marina Bishara (CGSI)**
- **Reanna Bowles (CGSI)**
- **Evangelia Stavridis (IND)**
- **Nicole Manzetti (CGSI)**
- **Brielle Chamberlain (CGSI)**
- **Sydney Grosser (CGSI)**
- **Samantha Morris (CGSI)**
- **Sarah Ciccarelli (IND)**
- **Stefanie Fischer (IND)**
- **Timothy Malone (IND)**
- **Joseph DeGaetani (IND)**
- **Alexander Trenta (IND)**
- **Daniel Spadaro (IND)**
THOMAS AGRUSTI
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: Religious Elements & Mental Health
Thesis Advisor: Dr. Neil Kressel

NICOLE ALEXANDER
Honors Track: Performing & Literary Arts
Major: Communication (Broadcast Journalism)
Thesis Title: May 29, 2015
Thesis Advisor: Dr. Philip Cioffari

CHRISTINA ANGELO
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: High Sensation Seeking Traits: Links to Mood, Anxiety and Fatigue
Thesis Advisor: Dr. Bruce Diamond

REBECCA ATENCIO
Honors Track: Biopsychology
Major: Biology
Thesis Title: Effect of adrenalectomy on expression of c-fos in the Hypothalamic Nuclei of BTBR T+ tf/J Mice injected with formalin
Thesis Advisors: Dr. Jeung Woon Lee & Dr. Robert Benno

MARINA BISHARA
Honors Track: Cognitive Science
Major: Legal Studies, Political Science
Thesis Title: Political ideology of Sandra Day O’Connor
Thesis Advisor: Dr. Amy Learmonth

AMANDA BLAZKIEWICZ
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: Perceptions of Sexuality
Thesis Advisor: Dr. Bruce Diamond

REANNA BOWLES
Honors Track: Cognitive Science
Majors: Elementary Education & Psychology
Thesis Title: Anxiety in the Elementary Mind
Thesis Advisor: Dr. Amy Learmonth

AMANDA BRADY
Honors Track: Performing & Literary Arts
Major: Anthropology
Thesis Title: The Life and Times of Frankie C. Valentine
Thesis Advisor: Dr. Philip Cioffari

TONEE BURLEY
Honors Track: Social Sciences
Major: Communication Disorders
Thesis Title: Eurocentric Beauty Standards and the Perception of African American Women
Thesis Advisors: Dr. Danielle Wallace & Dr. Neil Kressel

BRIANNA CAMPO
Honors Track: Business
Major: Professional Sales
Thesis Title: Business Students’ Attitudes towards Relocation for Job Opportunity
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

BRIELLE CHAMBERLAIN
Honors Track: Cognitive Science
Major: Communication Disorders
Thesis Title: Can God Control My Anxiety?
Thesis Advisor: Dr. Amy Learmonth

UNNATI CHAUHAN
Honors Track: Independent
Major: Biology
Thesis Title: Long-term Effects of High Light Intensity on Growth, Toxicity, and Gene Expression of the Florida Red Tide Dinoflagellate, Karenia brevis
Thesis Advisors: Dr. Emily A. Monroe & Dr. Barbara Andrew
COURTNAEY CHELF
Honors Track: Clinical Psychology & Neuropsychology
Major: Communication
Thesis Title: Traumatic Brain Injuries in the Military
Thesis Advisor: Dr. Bruce Diamond

SARAH CICCARELLI
Honors Track: Independent
Major: Classical Voice Performance
Thesis Title: Philosophy of Music: A Synthesis of Arthur Schopenhauer’s “The World as Will & Representation” and Nelson Goodman’s “Languages of Art”
Thesis Advisors: Dr. Daniel Kolak & Dr. Barbara Andrew

CHERILYN CONNER
Honors Track: Cognitive Science
Major: Mathematics
Thesis Title: The Use of Electronics to Teach Students with Autism About Emotions
Thesis Advisor: Dr. Amy Learmonth

STEPHANIE COSTA
Honors Track: Biology
Major: Biology
Thesis Title: Effects of Phosphate Limitation on Growth Rate, Brevetoxin Production, and Gene expression in Karenia brevis
Thesis Advisors: Dr. Emily Monroe & Dr. Joseph Spagna

JESSICA COUPER
Honors Track: Nursing
Major: Nursing
Thesis Title: Transforming Birth Culture in America: The relationship between interpersonal processes of care as exhibited by the primary care provider and the level of maternal satisfaction with the birthing experience
Thesis Advisor: Dr. Jill Nocella

JOSEPH DEGAETANI
Honors Track: Independent
Major: Mathematics
Thesis Title: An Exploration of Cryptography
Thesis Advisors: Dr. Maria Vega-Veglio & Dr. Barbara Andrew

KYLE NICOLE DEVEZA
Honors Track: Humanities
Major: Secondary Education
Thesis Title: Manipulation of Montesquieu’s doctrine on the Separation of powers by Federalists & Anti-Federalists
Thesis Advisors: Dr. Suzanne Bowles & Dr. John Peterman

JONATHON DRAGON
Honors Track: Humanities
Major: History
Thesis Title: The Personal Religion of Henry VIII
Thesis Advisors: Dr. George Robb & Dr. John Peterman

KAITLIN ANNE ELLIOTT
Honors Track: Literary & Performing Arts
Major: Psychology
Thesis Title: Stronger
Thesis Advisor: Dr. Philip Cioffari

PRECIOUS GRACE FACTORA
Honors Track: Nursing
Major: Nursing
Thesis Title: Factors Affecting Timing of Umbilical Cord Clamping and the Effects of Early and Late Clamping on Health of Pre-term and Term Infants: A Systematic Review
Thesis Advisor: Dr. Jill Nocella

FRANZISKA ANJA FEDERICO
Honors Track: Humanities
Major: K-12 Secondary Education
Thesis Title: British Conduct Books of the 18th and 19th Centuries: Perpetuating the Subjugation of Women
Thesis Advisors: Dr. Barbara Suess & Dr. John Peterman
<table>
<thead>
<tr>
<th>Name</th>
<th>Honors Track</th>
<th>Major</th>
<th>Thesis Title</th>
<th>Thesis Advisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEFANIE FISCHER</td>
<td>Independent</td>
<td>Art (Graphic Design)</td>
<td>Anti-smoking Campaign</td>
<td>Professor Angela DeLaura &amp; Dr. Barbara Andrew</td>
</tr>
<tr>
<td>AVIV FLORENTHAL</td>
<td>Business</td>
<td>Financial Planning</td>
<td>Values that Millennials want in a Financial Advisor</td>
<td>Dr. Bela Florenthal &amp; Dr. Chen-Ho (Mike) Chao</td>
</tr>
<tr>
<td>HANNAH FRANKOVITS</td>
<td>Social Sciences</td>
<td>Elementary Education/TSD</td>
<td>Exploring the Diversity of Social Networks</td>
<td>Dr. Maria Villar &amp; Dr. Neil Kressel</td>
</tr>
<tr>
<td>EVE LILY GALEN-HARRIS</td>
<td>Humanities</td>
<td>History</td>
<td>Deconstruction of Mythological Archetypes</td>
<td>Dr. John Peterman</td>
</tr>
<tr>
<td>ELENA GRADY</td>
<td>Social Sciences</td>
<td>Communication (Broadcast Journalism)</td>
<td>The History of Women’s Professional Soccer</td>
<td>Dr. Neil Kressel</td>
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<tr>
<td>TIMOTHY GREENDYK</td>
<td>Life Science &amp; Environmental Ethics</td>
<td>Environmental Science</td>
<td>The Presence of Pharmaceuticals in Drinking Water</td>
<td>Dr. Karen Swanson</td>
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<tr>
<td>MICHAEL GRELKA</td>
<td>Cognitive Science</td>
<td>Psychology</td>
<td>Duration of Processing Images Produces False Memory Susceptibility</td>
<td>Dr. Natalie Obrecht &amp; Dr. Neil Kressel</td>
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<tr>
<td>SYDNEY GROSSER</td>
<td>Cognitive Science</td>
<td>Communication Disorders</td>
<td>Beauty and the Beast: Modern Media Edition</td>
<td>Dr. Natalie Obrecht &amp; Dr. Amy Learmonth</td>
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<tr>
<td>AMBERLY GURBISZ</td>
<td>Nursing</td>
<td>Nursing</td>
<td>The Effects of Childhood Obesity: Beyond the Physical Manifestations</td>
<td>Dr. Jill Nocella</td>
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<tr>
<td>XIANA GUTIERREZ</td>
<td>Nursing</td>
<td>Nursing</td>
<td>The Phenomenological Beliefs of Young Adults Diagnosed with Substance Abuse Disorders and Mental Illness</td>
<td>Dr. Jill Nocella</td>
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<tr>
<td>EMILY HOUWEN</td>
<td>Nursing</td>
<td>Nursing</td>
<td>Workplace Violence Against Nurses</td>
<td>Dr. Jill Nocella</td>
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<tr>
<td>ANOUSH KALACHIAN</td>
<td>Nursing</td>
<td>Nursing</td>
<td>Nurses’ Attitudes Toward Childbirth Practices</td>
<td>Dr. Jill Nocella</td>
</tr>
</tbody>
</table>
KIMBERLY KEPPLER
Honors Track: Performing & Literary Arts
Major: Communication (Broadcast Journalism)
Thesis Title: Social Media and Public Relations
Thesis Advisor: Dr. Philip Cioffari

JULIA KOLAK
Honors Track: Clinical Psychology & Neuropsychology
Major: Philosophy
Thesis Title: On Double Dissociation and the Confound of Social Construction in the Nosology and Neurophysiological Correlates of Psychopathology
Thesis Advisor: Dr. Bruce Diamond

BRIANNA KOWALSKY
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: Therapeutic Benefits of Yoga Across Physiological And Psychological Domains
Thesis Advisors: Dr. Robin Nemeroff & Dr. Bruce Diamond

COREY LACOPPOLA
Honors Track: Business
Major: Business Management
Thesis Title: Factors Associated with Mentorship Practices
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

ABBI LAMPARELLI
Honors Track: Nursing
Major: Nursing
Thesis Advisor: Dr. Jill Nocella

DANIELLE LANDAYAN
Honors Track: Nursing
Major: Nursing
Thesis Title: Antibiotic Knowledge in University Students
Thesis Advisor: Dr. Jill Nocella

NICOLE LEAL
Honors Track: Nursing
Major: Nursing
Thesis Title: Social Support and Help-Seeking Behaviors in Adolescents with Depression
Thesis Advisor: Dr. Jill Nocella

MICHELLE LEGRAND
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: An Art Program Focusing on Individual vs Group-Oriented Approaches for Low Socioeconomic Status Children
Thesis Advisor: Dr. Bruce Diamond

KEVIN LENIHAN
Honors Track: Business
Major: Business Management
Thesis Title: Millennials and the Use of Social E-Commerce
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

BRIELLE LIEBMAN
Honors Track: Independent
Major: Popular Music Studies
Thesis Title: Observations of a Western
Thesis Advisors: Professor Whitney Slaten & Dr. Barbara Andrew

JACLYN MAKO
Honors Track: Social Sciences
Major: Psychology
Thesis Title: Child Sexual Abuse Prevention: What Works and What Needs Work?
Thesis Advisor: Dr. Neil Kressel

TIMOTHY MALONE
Honors Track: Independent
Major: Music Studies
Thesis Title: What Mozart is in the Mozart Effect
Thesis Advisors: Dr. Anton Vishio & Dr. Barbara Andrew
<table>
<thead>
<tr>
<th>Name</th>
<th>Honors Track</th>
<th>Major</th>
<th>Thesis Title</th>
<th>Thesis Advisors</th>
<th>Thesis Advisor</th>
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<tbody>
<tr>
<td>NICOLE MANZETTI</td>
<td>Cognitive Science</td>
<td>Psychology</td>
<td>Dispositional Empathy, Altruistic Helping Behaviors, and Social Networking Site Usage</td>
<td>Dr. Natalie Obrecht &amp; Dr. Amy Learmonth</td>
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<tr>
<td>MOHAMMAD MAREY</td>
<td>Humanities</td>
<td>History</td>
<td>Lost Paradise; Tolerance &amp; Intolerance in Islamic Spain, 750-1200</td>
<td>Dr. John Peterman</td>
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<tr>
<td>KRISTEN MEGARGEE</td>
<td>Social Sciences</td>
<td>Communication Disorders</td>
<td>“Qui est Charlie?” or “Who is Charlie?”</td>
<td>Dr. Madhuri Mukherjee &amp; Dr. Neil Kressel</td>
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<tr>
<td>ASHLEY MONDRAGON</td>
<td>Clinical Psychology &amp; Neuropsychology</td>
<td>Psychology</td>
<td>The Prevalence &amp; Cognitive Effects of Depressed Mood &amp; Anxiety in College Students</td>
<td>Dr. Bruce Diamond</td>
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<tr>
<td>JOSHUA MOROVAN</td>
<td>Performing &amp; Literary Arts</td>
<td>Jazz Studies Performance</td>
<td>Music as Visual/Literary Devices</td>
<td>Dr. Philip Cioffari</td>
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<tr>
<td>SAMANTHA MORRIS</td>
<td>Cognitive Science</td>
<td>Biology</td>
<td>Positivity and Pain: Positive Affect Journaling and Pain Symptoms</td>
<td>Dr. Natalie Obrecht &amp; Dr. Amy Learmonth</td>
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<tr>
<td>CARA MUTIA</td>
<td>Nursing</td>
<td></td>
<td>Efficacy of Virtual Reality Exposure Therapy on Combat-Related Post Traumatic Stress Disorder: A Systematic Review</td>
<td>Dr. Jill Nocella</td>
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<tr>
<td>MATTHEW ORSO</td>
<td>Performing &amp; Literary Arts</td>
<td>Communication</td>
<td>Eric Chamberlain and the Cooperstown Caper</td>
<td>Dr. Philip Cioffari</td>
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<tr>
<td>MATEUSZ PALA</td>
<td>Performing &amp; Literary Arts</td>
<td>Communication (Media Production)</td>
<td>Will Do</td>
<td>Dr. Philip Cioffari</td>
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<tr>
<td>SIN YEONG PARK</td>
<td>Performing &amp; Literary Arts</td>
<td>Anthology of Short Stories</td>
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<td>Dr. Philip Cioffari</td>
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<tr>
<td>MICHAEL PARMESE</td>
<td>Business</td>
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<td>Millennial Engagement in Charitable Causes</td>
<td>Dr. Bela Florenthal &amp; Dr. Chen-Ho (Mike) Chao</td>
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<tr>
<td>RENEE PENDERGAST</td>
<td>Humanities</td>
<td>Interpersonal Communication</td>
<td>Fantasy Helps Children with Moral Development</td>
<td>Dr. John Peterman</td>
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</tbody>
</table>
MARISA RAPISARDI
Honors Track: Nursing
Major: Nursing
Thesis Title: Yoga Practice & Perceived Stress among High School & College-age Students
Thesis Advisor: Dr. Jill Nocella

JENNA SCHRECK
Honors Track: Humanities
Major: Mathematics
Thesis Title: The Role of Assistive Technology in Mathematics Classrooms
Thesis Advisors: Dr. Michelle Gonzalez & Dr. John Peterman

DANIEL RAYCRAFT
Honors Track: Music
Major: Jazz Performance
Thesis Title: Frank Strozier: An analysis of his compositions and improvisations
Thesis Advisor: Dr. Jeffrey Kresky

RACHAEL SEGAL
Honors Track: Performing & Literary Arts
Majors: Legal Studies, Political Science, and English
Thesis Title: Asperger’s and This College Experience
Thesis Advisor: Dr. Philip Cioffari

XANILYN RED
Honors Track: Nursing
Major: Nursing
Thesis Title: Level of Burnout and Personal Values in the Nursing Profession
Thesis Advisor: Dr. Jill Nocella

MICHAL SHAPIR
Honors Track: Independent
Major: Communication
Thesis Title: The Story of Us
Thesis Advisors: Professor Chriss Williams & Dr. Barbara Andrew

VIRGINIA ROCK
Honors Track: Independent Track
Major: Biology
Thesis Title: The behavioral effects of honeybee waggle-dance pheromone compounds on individual bees
Thesis Advisors: Dr. David Gilly & Dr. Barbara Andrew

BETHAN SHIPWAY
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: Board Game based Intervention for Domestic Violence
Thesis Advisor: Dr. Bruce Diamond

ALISA SEMETIS
Honors Track: Business
Major: Business (Management)
Thesis Title: Streaming Music: Why have young people switched from purchasing music to purchasing subscriptions of streaming services?
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

MELISSA SILVESTRI
Honors Track: Performing & Literary Arts
Majors: Communication (Broadcast Journalism), Elementary & Middle School Education, and English
Thesis Title: Now I’m Found
Thesis Advisor: Dr. Philip Cioffari

GABRIELA SALVADOR
Honors Track: Humanities
Major: Communication (Print Journalism)
Thesis Title: Examining Changes in French Women’s Fashion during the Late 18th and Early 19th Centuries
Thesis Advisor: Dr. John Peterman

DANIEL DAVID SIMON, JR.
Honors Track: Performing & Literary Arts
Major: Mathematics
Thesis Title: Give God The Glory
Thesis Advisor: Dr. Philip Cioffari
ABOUT THE PRESENTERS…

JOSEPH SNIDER
Honors Track: Humanities
Major: History
Thesis Title: Populist Revolution: Aggressive Radical Populists & Why they Succeed
Thesis Advisor: Dr. John Peterman

DANIEL SPADARO
Honors Track: Independent
Major: Popular Music Studies
Thesis Title: More Than A Song
Thesis Advisors: Dr. David Kerzner & Dr. Barbara Andrew

STEPHANIE SPIES
Honors Track: Business
Major: Accounting
Thesis Title: Financial Literacy
Examined through Debt Management of Two-Year and Four-Year College Students
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

EVANGELIA STAVRIDIS
Honors Track: Independent
Major: Music Education
Thesis Title: Aural Painting
Thesis Advisors: Dr. David Weisberg & Dr. Barbara Andrew

KRISTINA STERNESKY
Honors Track: Performing & Literary Arts
Major: Communication (Public Relations)
Thesis Title: A Collection of Short Stories
Thesis Advisor: Dr. Philip Cioffari

ANNA STIENSTRA
Honors Track: Business
Major: Marketing
Thesis Title: Emotional intelligence and its Impact on Student Leadership
Thesis Advisors: Dr. Bela Florenthal & Dr. Chen-Ho (Mike) Chao

MONICA SZCZECH
Honors Track: Nursing
Major: Nursing
Thesis Title: The Effects of Social Media on Self-Esteem in College-aged Individuals
Thesis Advisor: Dr. Jill Nocella

ALEXANDER TRENTA
Honors Track: Independent
Major: Communication (Media Production)
Thesis Title: Deconstruction and reconstruction of the American Sit-Com
Thesis Advisors: Professor Chriss Williams & Dr. Barbara Andrew

AMANDA UHLICK
Honors Track: Nursing
Major: Nursing
Thesis Title: Barriers to Smoking Cessation in Patient Care: Understanding the Attitudes & Behaviors of Registered Nurses
Thesis Advisor: Dr. Jill Nocella

ANGELICA URBINA
Honors Track: Clinical Psychology & Neuropsychology
Major: Psychology
Thesis Title: Personality and Demographic Profiles of Firefighters and Police Officers
Thesis Advisor: Dr. Bruce Diamond

KASSANDRA VAZQUEZ
Honors Track: Humanities
Majors: Political Science and History
Thesis Title: The Persistence of Rape
Thesis Advisors: Dr. Carole Sheffield & Dr. John Peterman

BRITTANY WARTHER
Honors Track: Performing & Literary Arts
Major: Education K-12/TSD
Thesis Title: Navigating Life in Your 20’s
Thesis Advisor: Dr. Philip Cioffari
About the Honors College

The University Honors College is a place where academically gifted students explore new ideas and engage in intellectual and creative collaborations with experienced and dedicated members of the faculty. Honors students are offered a comprehensive educational experience that brings together academic, residential, social, and cultural experiences. Approximately 400 students are actively participating in the Honors College in Honors sections of General Education courses and/or one of the ten Honors Tracks. Each fall, about 100 new students enter the Honors College, and about half of those live in the Honors Learning Community in High Mountain East, one of the newest residence halls on campus.

Students in the Honors College pursue a disciplinary major and an Honors track. The track may parallel the major, relate to the major, or be very different from the major. Although the various tracks have different requirements, each track culminates in a thesis or significant research or creative project that the student presents to the University community.

DANA WEAVER
Honors Track: Biology
Major: Biology (Physiology & Behavior)
Thesis Title: Phylogenetic Relationships in Oligophlebodes (Trichoptera: Thremmatidae) as an Assessment of DNA Barcodes
Thesis Advisors: Dr. Patina Mendez & Dr. Joseph Spagna

SARA WILLIAMS
Honors Track: Social Sciences
Major: History
Thesis Title: Behavioral Interventions in New Jersey Alternative Education Programs
Thesis Advisor: Dr. Neil Kressel

CAROLYN WOYCE
Honors Track: Nursing
Major: Nursing
Thesis Title: The Effects of C-Sections on Infant and Maternal Health
Thesis Advisor: Dr. Jill Nocella

KRISTI LEE YOUNG
Honors Track: Performing & Literary Arts
Major: English (Writing)
Thesis Title: Foolish: A Play in One Act
Thesis Advisor: Dr. Philip Cioffari

University Honors College
Raubinger 154
300 Pompton Road
Wayne, New Jersey 07470
honors@wpunj.edu
www.wpunj.edu/honors-program

Kathleen Waldron
President

Warren Sandmann
Provost and Senior Vice President for Academic Affairs

Stephen Hahn
Associate Provost for Academic Affairs

Jonathan Lincoln
Associate Provost for Curriculum and International Education

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Barbara Andrew
Interim Director

Jan Pinkston
Assistant Director

Emre Keskin
Project Assistant

Christina Sakelakos
Student Assistant

TRACK DIRECTORS
Philip Cioffari
Performing and Literary Arts

Bruce Diamond
Clinical Psychology and Neuropsychology

Bela Florenthal
Business

Jeffrey Kresky
Music

Neil Kressel
Social Sciences

Amy Learmonth
Cognitive Science

Jill Nocella
Nursing

John Peterman
Humanities

Joseph Spagna
Biology
College and Council Sponsored Sessions, Poster Sessions, and Receptions

Presentation Schedule
Sponsored and Poster Sessions

Tuesday, April 19

Technology Across the Curriculum Committee 11:00 to 12:15, Ballroom A

Michelle Hinkle, Special Education and Professional Counseling
Moderator

Donna Potacco, Science Enrichment Center
*A Mixed Method Study of the Adoption of Online Academic Support by STEM Students in Higher Education*

Michelle Gonzalez, Special Education and Professional Counseling & Educational Leadership
*Engaging Online Students with Web 2.0 Technologies and UDL*

David Fuentes & Elizabeth Brown, Early Childhood and Elementary Education
*Using Video to Evidence Effectiveness in Student Teaching*

Arts and Communication 11:00 to 12:15, Ballroom B

Zhiyuan Cong, Art
*Journey Long and Long Journeys: Zhiyuan Cong Art Exhibition at the National Museum of China*

Soo-Kwang Oh, Communication
*Where “stars” are born: An exploratory study of Afreeca TV’s live-stream self broadcast model*

Thomas Uhlein, Art
*Typeface design: The Marvelous and the Melancholy*

Leslie Nobler
*Reinventing Rescued or Looted Artifacts: Relief Mixed Media and Fiber Surfaces Via Alternative Digital Printmaking*

Poster Session 12:30 to 1:45, UC Hallway

Megan Baird, Undergraduate Student, Mathematics
Faculty Sponsor: Prof. Jyoti Champanerkar, Mathematics
*Pharmacokinetics: The Metabolism of Everyday Drugs*

Emily Bieh-mintah, Alexandra Ovits, and Amanda Silvestri, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health
Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health
Student Perspectives on Learning about the Social Determinants of Health and Applying the Social-Ecological Model through Watching The Wire

Nahshon Bolton and Janielle Hall, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health  
Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

Hip Hop and Health: Using Instagram as a Cue to Action for Positive Health Behaviors

Rebecca Costantini, Master's Degree Student, Communication  
Faculty Sponsor: Prof. Dr. Soo-Kwang (Klive) Oh, Communication

Geotagging crisis public relations: The implications of localized messages and Planned Parenthood

Laura Fattal, Faculty, Elementary and Early Childhood Education  
Bilingualism and Project Arts-Based Learning

Michael Grella and Maitry Mahida, Undergraduate Students, Psychology, Ryan Salim, Doctoral Student, St. John's University, and Dana Chesney, St. John's University  
Faculty Sponsor: Prof. Natalie A. Obrecht, Psychology

Confirmation that argument evaluation induces deliberation.

Marcello Maritato, Undergraduate Student, Computer Science  
Faculty Sponsor: Prof. Dr. Bogong Su, Computer Science

Automatic Refrigerator Failure Warning

Kellie Markert, Undergraduate Public Health Student, and Naa-Solo Tettey, Public Health  
Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

Using Self-Efficacy Theory to Assess Strategies Implemented by Facebook Pages Aimed at Helping Black Women Lose Weight

Ana K. Ocampo, Undergraduate Student, Computer Science  
Faculty Sponsor: Prof. Cyril S. Ku, Computer Science

The WPU YRBS (Youth Risk Behavior Survey) Data Mart

Olivia Pinto, Jennifer Haggis and Diana Russo, Undergraduate Students, Psychology, and Torri Jaime, Master's Degree Student, Communication Disorders and Sciences  
Faculty Sponsor: Prof. Amy E. Learmonth, Psychology

How does the lion roar? Four-year-olds remember elements but not associations regardless of memory load.

Bogong Su and Erh-Wen Hu, Computer Science  
Instruction Level Loop De-optimization - Loop Rerolling and Software De-pipelining

Mariana Vasiljevic and Roshanna Jacobs, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health  
Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

My Mind is Playing Tricks on Me: A Content Analysis of Expressions of PTSD Symptoms in Hip Hop Lyrics
Cotsakos College of Business Summer Research 2015 "White Papers"
Jorge A. Arevalo and Rajiv Kashyap, Cotsakos College of Business, Moderators

Ali Mir, Raza Mir, Marketing & Management
Sia Nassiripour, Accounting & Law
Understanding (Student) Debt

Avinash Arya, Accounting & Law
Priya Nagaraj, Economics, Finance & Global Business
Hannah Wong, Accounting and Law
Effect of IFRS Adoption on Corporate Cost of Capital

Bahar Ashnai, Prabakar Kothandaraman, Professional Sales
Ki Hee Kim, Marketing & Management
Exploring Social Media in B2B Sales: Usage, Challenges and Remedies

Rahi Abouk, Francis Cai, Taghi Ramin, Tricia Snyder, Economics, Finance & Global Business
Minimum Instructional Hours at School and Childhood Weight

Rajiv Kashyap, Marketing and Management Sciences
Sudha Mani, Professional Sales
Sam Basu, Economics, Finance and Global Business
Peter Caiazzo, Global Financial Services Institute
An Investigation Of The Effects Of Voluntary Disclosures Of Sri Activities On Financial Performance
And Implications For Regulatory Policy

Authors Reception, David and Lorraine Cheng Library
and
Recognition of Recent Award Recipients, Office of Sponsored Programs

Ballroom C 3:30
Wednesday, April 20

College of Humanities and Social Sciences 11:00 to 12:15, Atrium 126

Dialogues of Identity
Kara Rabbitt, Dean, Moderator

Joanne Miyang Cho, History
*Gendered Encounters between Germany and Asia: Transnational Perspectives since 1800*

Kathleen Korgen, Sociology
*Race Policy and Multiracial Americans*

Charlotte Nekola, English
*Della Who*

Poster Session 12:30 to 1:45, UC Hallway

Ashley Bujalski, Doctoral Student, Psychology
Faculty Sponsor: Prof. Megan Chesin, Psychology
*Predictors of Borderline Personality Features in College Students*

Ashley Bujalski, Doctoral Student, Psychology, and Elizabeth L. Jeglic, CUNY - John Jay College
Faculty Sponsor: Prof. Megan Chesin, Psychology
*Perspective Taking and Physical Abuse are Elevated in College Students with Recurrent Suicidal Ideation Compared to Those Without*

Joshua Buscema and Savonis Osei, Undergraduate Students, Psychology
Faculty Sponsor: Prof. SoYon Rim, Psychology
*Tuning me with you: Affiliation motive and self-partner trait-matching in first impression contexts*

Cherilyn Conner, Undergraduate Student, Mathematics and Cognitive Science Honors Track
Faculty Sponsor: Prof. Amy Learmonth, Psychology
*The Use of Electronics to Teach Students with Autism About Emotions*

Aurea Jane De Leon, Undergraduate Student, Public Health
Faculty Sponsor: Prof. Corey Basch, Public Health
*Unhealthy Lifestyles of Working College Students*

Barbara Krasner, Master’s Degree Student, History
Faculty Sponsor: Prof. Dewar MacLeod, History
*Dance Marathons of the 1920s and 1930s*

Pierre Leon, Master’s Degree Student, Diana Russo and Veronica Mejia, Undergraduate Students, and Amy E. Learmonth, Psychology
*Finding Mr. Smiley: which cues are too hard?*
Andrew Lucila, Franklin Roque and Micheal Morgan, Undergraduate Students, Psychology, and Benjamin Ciccarelli, Music
Faculty Sponsor: Prof. Michael S. Gordon, Psychology
Auditory Feedback for Sight-Reading Musicians Influences Gaze

Nicole Manzetti, Undergraduate Student, Psychology
Faculty Sponsor: Prof. Natalie Obrecht, Psychology
Dispositional Empathy, Altruistic Helping Behaviors, and Social Networking Site Usage

Amairany Martinez, Kathy Roberts and Emily Zagnit, Undergraduate Students, and Corey Basch, Faculty, Public Health
Marketing strategies on packaging used in infant and children over-the-counter medicines

Anthony Menafro, Undergraduate Student, Public Health
Faculty Sponsor: Prof. Corey H. Basch, Public Health
Safety Information Regarding Electronic Cigarettes From Shopkeepers in New York City

Michael Morgan, Undergraduate Student, Psychology
Faculty Sponsor: Prof. Michael S. Gordon, Psychology
Hearing What is Coming: Musical Direction of a Visual Search

Jessica Napolitano, Master’s Degree Student, Amanda Blazkiewicz, Undergraduate Student, and Amy Learnmonth, Psychology
Can videos speak the language of Autism? Preliminary analyses

Jennifer Owlett, Communication
Understanding Reintegration Stress, Turbulence, and Satisfaction: At-Home Partners’ Perspectives.

Sirai Ramirez, Undergraduate Student, Biology
Faculty Sponsor: Prof. Jaishri Menon, Biology
Cross talk between cellular organelles during tail regression in tadpoles Xenopus leavis

Kelly L. Roe, Undergraduate Student, Psychology
Faculty Sponsor: Prof. Dr. So-Yon Rim, Psychology
Social Media Behaviors

Sage Stuart, Undergraduate Student, Communication
Faculty Sponsor: Prof. Jennifer Owlett
Professional Patient-Doctor Relationship

Billy Tsang, Ashley Bujalski, Alana Summers, and Joshua Cohen, Doctoral Students, Psychology
Faculty Sponsor: Prof. Bruce Diamond, Psychology
Mood and Anxiety Disturbances Among Female and Male College Students
Thursday, April 21

College of Science and Health 11:00 to 12:15, Ballroom A

College of Science & Health Center for Research Summer Research Award Recipients (Part 1)
David Gilley, Biology, Moderator

Jonathan Gabriel, Mihaela Jitianu, Chemistry
Shadrak Dugbatey, Andrei Jitianu, Department of Chemistry, Lehman College, CUNY
Nanosized Cr(III)-Layered double hydroxides

Yalan Xing Chemistry
Development of Alkyne Functionalization Methodology

Michael Griffiths, Martin Becker, Bryan Gonzalez, Sanserei Aiah Pilapil, Fatima Popcakova, Environmental Science, Robert Eagle, UCLA, and Yair Rosenthal, Rutgers University
$^{13}$C and $^{18}$O ("clumped") isotope reordering in shark tooth bioapatite: can this be a tool to constrain past seawater chemistry?

Emily A. Monroe, Unnati Chauhan, Daniel Lupo, and Stephanie Costa, Biology
The Effect of High Light Intensities on Toxin Biosynthesis in the Florida Red Tide Dinoflagellate, Karenia brevis

Nadine Aktan, Bryant Catano, Nursing
An interventional approach to obesity in an ambulatory care setting

College of Education 11:00 to 12:15, UC 171A&B

Lisa Warner, Elementary and Early Childhood Education
Moderator

Peter Griswold and Jeanne D'Haem, Special Education & Counseling
Enhancing the Role of Student Teacher Supervisors in Facilitating Practice in Parent Interactions

Noreen Moore and Michelle Gonzalez, Educational Leadership and Professional Studies
Supporting Graduate Student Writers with VoiceThread

Manina Urgolo Huckvale, Irene Van Riper, Jeanne D'Haem, Michelle Gonzalez, Peter Griswold, Pei-Lin Weng, Carol Maniscalco, and Alexandra Gitter, Special Education and Professional Counseling
Nature and Needs of Individuals with Autism Spectrum Disorders and Other Severe Disabilities
Poster Session
12:30 to 1:45, UC Hallway

Alejandro Ataucusi, Undergraduate Student, Psychology
Faculty Sponsor: Prof. Michael S. Gordon, Psychology
Memory for Musical Melodies in Affective Contexts

Cara Berg, Cheng Library
The (Mostly) All Purpose Library Instruction Assessment

Alexa Bermudez and Rudensa Doda, Master's Degree Students, Communication Disorders
Faculty Sponsor: Prof. Dr. Vishwa Bhat, Communication Disorders
The Effect of Sound Exposure from Musical Instruments on Hearing Sensitivity in Young Adults

Valerie Cadorett, Undergraduate Student, Aleksandar Kecojevic, Public Health
Faculty Sponsor: Prof. Corey H. Basch, Public Health
Sedentary Toy Advertisements and Images in a Popular Parenting Magazine: 2010-2015

Nicole Davi and Rose Oelkers, Environmental Science, Jessica Geary, Undergraduate Student, Environmental Science, and Roseanne D’Arrigo, Lamont-Doherty Earth Observatory of Columbia University
A long-term context (931-2005 C.E.) for rapid warming over central Asia and introduction to a new climate proxy

Jessica Geary, Undergraduate Student, Rose Oelkers and Nicole Davi, Environmental Science, Jesper Björklund, Swiss Federal Research Institute WSL, and Rosanne D’Arrigo and Laia Andreu-Hales, Lamont-Doherty Earth Observatory of Columbia University
An International Comparison of Tree-Ring Density

Kyle Hansen and Seth J. Getch, Undergraduate Students, Environmental Science
Faculty Sponsor: Prof. Dr. Michael Griffiths, Environmental Science
Deglacial climate variability in northern New Jersey inferred from a lake sediment core

Kyle Hansen, Undergraduate Student, Rose Oelkers and Nicole Davi, Environmental Science, Rosanne D’Arrigo and Laia Andreu-Hayles, Lamont-Doherty Earth Observatory of Columbia University
Strengthening the climate signal in tree-ring records using blue intensity methods: Gulf of Alaska

Caitlin McCaul and Jacqueline Zanosky, Master's Degree Students, Communication Disorders
Faculty Sponsor: Prof. Dr. Vishweshwara Bhat, Communication Disorders
A comparison of younger versus older children in relation to their ability to comprehend figurative language, specifically idioms.

Kadeem E. O’Givlie and Derrick Dorph, Undergraduate Students, Kendall Martin, Biology
Combining autoclaving before extraction and very high sensitivity PCR to detect the causative agent in white-nose syndrome in environmental samples, without risk of spread.
Jitwipar Suwangbutra and Michael S. Gordon, Psychology

*Role of skull resonance in sound-source localization*

Miryam Z. Wahrman, Biology, Corey H. Basch, Public Health, Jay Shah, Biology, Zerlina MacDonald and Myladys Marte, Public Health

*Glove Usage by New York City Mobile Food Vendors: Observational and Microbiological Analysis*

Christina C. Yarborough, Undergraduate Student, Public Health

Faculty Sponsor: Prof. Corey Basch, Public Health

*Use of Protective Gloves in Nail Salons in Manhattan, New York City*

**Explorations in Language and Linguistics**

Undergraduate Students in Understanding Human Language (LANG 1120).

Faculty Sponsor: Prof. Judy B Bernstein assisted by Abigail Tigayan, Languages and Cultures

Megan Campbell

James Chimento

Ariela Colon

Ivette Delgado

Austin DiCola

Sotirios Efthimiopoulos

Keungsuk Estrada

Kaitlyn Ferraro

Yusri Ibrahim

Elif Inal

Michelle Karwowska

Habiba Khanom

Karisma Lafantane

Chris Martocci

Kevin McKiernan

Cherise Paton

Hiraysa Reynoso

Corey Rich

Rachel Seo

Arlene Siri

Deanna Sumrein

Tahsin Tamana

Emily Taylor

Johanca Vallejo

**Building a Grammar of a Natural Language**

Undergraduate Students in Structure of Language (LANG 3050).

Faculty Sponsor: Prof. Judy B. Bernstein

Ariela Colon

Keungsuk Estrada

Habiba Khanom

Julia Kolak

Angelica Parada

Renee Pendergast

Bryan Romero

Arlene Siri

Abigail Tibayen

Theresa VanArsdale
Jeung Woon Lee, Biology  
*Reversal of hyperglycemia in streptozotocin-injected C57/6J displaying diabetic mellitus type I: a long-term examination of efficacy of islet cell transplantation*

Brenda Marshall, Nhat Nguyen, Nursing  
*fMRI evaluation of emotional regulation through contextual manipulation.*

Eliana Antoniou, Mathematics  
*Cellular Proliferation Modeling During Serum Deprivation and Hematopoietic Inducing Agents*

Joseph Spagna, Biology  
*Secondary Structure, Homology, and Sequence Alignment in Spiders*

Kristen Victorino, Communication Disorders & Sciences  
*Profiles of behavior and executive function in children with specific language impairment*
Advancing Research, Scholarship and Creative Expression at William Paterson University

Schedule
Office of Sponsored Programs

Promoting Ideas Into Knowledge

The Office of Sponsored Programs (OSP) provides assistance and support to William Paterson University faculty and staff who seek external grant or contract support for research, teaching, service, public programs, creative endeavors, conferences and other types of projects from federal, state, and other government sponsors, grantmaking public charities, professional associations, and some commercial sponsors. The OSP concentrates its activities in three areas:

- Proposal development, submission and finalization of contracts (Pre-Award)
- Award set-up, management, and reporting (Post-Award)
- Fulfillment of contract terms and regulatory requirements (Compliance)

Benefits of External Support

- Increases impact of research activities that create new knowledge
- Encourages artistic activity that creates and shares culture
- Promotes teacher professional development that enables excellent educational practices
- Recognizes the contributions of the recipient's research, creative or service activity to their colleagues and the community
- Supports business development that strengthens the economy
- Inspires students to reach their goals
- Engages project leaders in personal and professional growth

Mission and Services

The mission of the Office of Sponsored Programs is to provide value-added assistance to encourage, develop, and support the research, scholarship, education, creative and community service aspirations of William Paterson University’s faculty, staff, and students.

The Office of Sponsored Programs accomplishes its mission by:

- Collaborating in the development of projects and leading the submission of proposals to Federal, State, and other government sponsors, grantmaking public charities, professional associations, and some commercial sponsors.
- Securing and initiating awards, supporting stewardship and compliance requirements, and assisting in closing-out individual awards.
- Developing, monitoring and implementing policies to ensure compliance with sponsor expectations and related regulatory requirements.

If you are interested in seeking external funding to support a new or ongoing project or activity, contact the OSP:

973-720-2852
Martin Williams
Director
WilliamsM@wpunj.edu

309 Raubinger Hall

www.wpunj.edu/osp
Advancing Research, Scholarship and Creative Expression at William Paterson University

Friday, April 22, 2016
University Commons
9:00 to 2:30

This conference is an opportunity for the William Paterson community to explore ideas, practices and expectations of success in research, scholarship and creative expression (RSCE). Existing examples of significant success and models for additional achievement will be presented and discussed.

9:00  Breakfast and conversation       Ballroom C
9:30  Opening Remarks
      Warren Sandmann, Provost and Senior Vice President for Academic Affairs
      Faculty Senate Research and Scholarship Committee
      David Gilley, Associate Professor, Department of Biology, and
      Jorge Arevalo, Assistant Professor, Department of Marketing and Management Science

10:00 Plenary: Positioning Your Research for National Recognition
      Jennifer Di Noia, Professor, Department of Sociology
      Nicole Davi, Assistant Professor Department of Environmental Science
      Emmanuel Onaivi, Professor, Department of Biology
      Moderator: Stephen Hahn, Associate Provost for Academic Affairs

      These distinguished William Paterson faculty will speak about their research and how they positioned it for positive peer review at the highly competitive level of obtaining Federal support. Questions will follow the presentations.

12:00 Keynote and Luncheon
      Kathleen Waldron, President

      Dr. Jeffrey M. Osborn
      Dean of the School of Science and Professor of Biology, The College of New Jersey, and
      Past President, Council for Undergraduate Research

      Building and Sustaining an Institutional Culture of Undergraduate Research,
      Scholarship, and Creative Activity: Strategies for Faculty and Institutions

      Biography

      Jeffrey M. Osborn is Dean of the School of Science and Professor of Biology at The College of New Jersey. Dean Osborn is an administrator-teacher-scholar, teaching and conducting research in biological, interdisciplinary, and higher education areas. His primary scientific focus addresses questions about plant evolutionary biology, and his higher education foci include the teacher-scholar role of faculty, faculty workload
models, and the integration of high-impact educational practices into the curriculum. Dr. Osborn has received over $7 million in grant funding as a principal investigator or co-principal investigator. He has led a number of institutional and multi-institutional programs to support the institutionalization of undergraduate research, scholarship, and creative activity, or URSCA, as well as the advancement of undergraduates and faculty who are underrepresented in higher education. Through these efforts, Dr. Osborn has worked with over 400 colleges and universities across the U.S. He is a Past-President of the Council on Undergraduate Research (CUR), a national organization of over 11,000 individual and 700 institutional members representing all disciplines and over 900 colleges and universities of all types. Dr. Osborn has served as a principal investigator on CUR’s National Science Foundation-funded national workshop project providing comprehensive support for faculty, institutions, state systems and consortia, as an Associate Editor for the American Journal of Botany, and as a member of the External Advisory Board of the State of Oklahoma’s National Institutes of Health (NIH) IDeA Network of Biomedical Research Excellence Program. He has received numerous awards including the CUR Fellows Award, Centennial Award from the Botanical Society of America, the Antarctica Service Medal of the United States of America from the National Science Foundation, and Truman State University's (Missouri) highest award for recognizing outstanding faculty members. He holds B.S. and M.S. degrees from Texas State University–San Marcos and a Ph.D. from Ohio State University.

1:30 Concurrent Discussion Groups

Support for Open Access Publishing – A Conversation at the Mid-Point of the Test Year.
Discussion Leader: Richard Kearney, David and Lorraine Cheng Library
UC 168A

The Research & Scholarship Council Survey – Reported Impacts, Additional Insights, and Moving Forward
Discussion Leaders: David Gilley and Jorge Arevalo, Faculty Senate Research and Scholarship Council
UC 168B

Strategies for Obtaining Federal Support for Research
Discussion Leader: Martin Williams, Office of Sponsored Programs
UC 171A
Abstracts

for

College and Council Sponsored Sessions, Poster Sessions, and UPS Computer Information Technology Distinguished Lecture Series
Abstracts

Rahi Abouk, Francis Cai, Taghi Ramin, and Tricia Snyder, Economics, Finance and Global Business

Minimum Instructional Hours at School and Childhood Weight

The increasing weight of children has been a persistent public health issue during the past four decades in the United States. According to the Center for Disease Control, in the 1963–1970 period, 4% of children between the ages of 6 and 11 were defined to be overweight; that level had more than tripled by 1999, reaching 13%. Childhood obesity is especially common among Black and Hispanic schoolchildren, with approximately 20% of whom are now overweight. In this study, we use state-level variations in the minimum amount of instructional time to study the effect of the amount of time spent at school on children’s physical health. We find that for every 10 hours increase in the number of school hours, the likelihood of an African Americans child being overweight decline by close to 1.3%. Overall, our research suggests that the amount of time spent at school could be a tool to fight childhood overweight.

This research was supported by the Cotsakos College of Business Summer Research Program.

Nadine Aktan and Bryant Catano, Nursing

An interventional approach to obesity in an ambulatory care setting

This interventional approach tracked body mass index (BMI) and patient experiences using the Ambulatory Care Experiences Survey. It was hypothesized that a NP supervised medical weight loss program can have a positive impact and that patients who have positive patient experiences will have greater success in weight loss (n = 38). Overall weight loss was significant (p = 0.0027, t = 2.98) and the most significant predictor of weight loss was length of enrollment (p = 0.0470, F = 4.27). Total score and BMI were significant (p = 0.00135, t = 3.32) and length in program (p = 0.0700, r = 0.13501). Age and weight loss were significant with greater loss seen in younger participants (p = 0.0305, t = 2.93) and (p = 0.0267, t = 2.11). Weight loss has been found to reduce mortality and NPs can play a significant role in the promotion of positive patient experiences.

This research was supported by the College of Science and Health Center for Research

Christina Angelo, Honors College, Psychology

High Sensation Seeking Traits: Links to Mood, Anxiety and Fatigue

For this study we posed the thought-provoking question: Why are some people novelty and high sensation seeking, while others are more reserved and less apt to engage in such behaviors? Using Qualtrics we conducted a survey to measure levels of sensation seeking, depression, anxiety, fatigue, and other demographic information.

Our testable hypothesis is that high sensation seeking scores will be positively correlated with scores indicative of high levels of depression.

Unless otherwise noted, presenters are WPU faculty.
Simultaneously, low sensation seeking scores will be positively correlated with scores indicative of high levels of anxiety. Our reasoning for this is that both depression and anxiety have opposite implicit goals. Depressed people might be more inclined to search for something missing, while anxious people seek to minimize risk and maximize control of a situation.

The results showed that certain personality profiles were better predictors of how apt someone might be to engage in high sensation seeking behavior.

Nicole Alexander, Honors College, Communication (Broadcast Journalism)

29-May-15

Nicole Alexander has completed a 46 page creative non fiction piece that tells the story of a boy and girl's relationship over a period of time, starting from the first time they met. The project was supervised by Dr. Philip Cioffari of the English Department.

Eliana Antoniou, Mathematics

Cellular Proliferation Modeling During Serum Deprivation and Hematopoietic Inducing Agents

The capability of Flow Cytometry (FACS) to process and analyze multiple parameters in a large number of cells makes it ideal for studying cellular apoptosis. We have used flow cytometric data and have derived a series of polynomial equations that captures phosphatidyl serine (PS) plasma translocation levels of cells at different time points. Cellular apoptosis and energy levels are closely linked. Plasma membrane integrity and phosphatidyl serine levels correlate with apoptosis. In a large cell population, the levels of apoptotic cells can be influenced by environmental factors. Our mathematical model investigates the underlined dynamics using stability and numerical analysis. The model captures the cell population apoptosis pattern of the plasma membrane at various time points, pre and post exposure to an apoptotic agent. The proposed model ultimately is intended as a prediction tool for drug interference with cellular bioenergetics utilizing plasma membrane alterations and flow cytometry.

This research was supported by the College of Science and Health Center for Research

Avinash Arya and Hannah Wong, Accounting and Law, Priya Nagaraj Economics, Finance and Global Business

Effect of IFRS Adoption on Corporate Cost of Capital

As the levels of economic globalization and financial interconnectedness continue to grow, so does the case for a global language of financial reporting. Harmonizing financial reporting standards across countries improves the quality of accounting information and reduces the learning curve for investors. This facilitates the flow of capital across borders and reduces the cost of capital. The International Financial Reporting Standards (IFRS) developed by the International Accounting Standards Board (IASB) have been adopted by more than 100 countries. In this paper, we examine the effects of voluntary adoption of IFRS by firms in Brazil. The analysis provides insight into the accounting and financial benefits of IFRS adoption, especially for an emerging economy.

This research was supported by the Cotsakos College of Business Summer Research Program.
Research into social media usage by salespeople to advance their sales goals is still in its infancy. In responding to researchers’ call for increased research in this area as well as practitioners’ desire to get better business results, we conducted an exploratory study on social media usage by salespeople and the challenges they faced. Based on 18 semi-structured in-depth interviews with salespeople and managers from a diverse set of companies, we conclude that salespeople use social media with a static, reactive, or proactive approach. Their social media usage has implications for their customers, company, competitors, and their personal brand. Our findings identify challenges that need to be addressed at both salesperson and company level. We use the qualitative data from the study to develop a diagnostic framework for companies comprising of two key indices that quantify individual skills (Social Selling Skills Index) and company support for social media usage in sales (Social Selling Support Index), while anchoring further research in this area. A general discussion of how to improve social selling is also presented.

This research was supported by the Cotsakos College of Business Summer Research Program.

**Alejandro Ataucusi, Undergraduate Student, Psychology**
Faculty Sponsor: Prof. Michael S. Gordon, Psychology

**Memory for Musical Melodies in Affective Contexts**

A set of studies were used to investigate the memory encoding of melodies as they might be influenced by affect. For the initial experiment, participants were presented a small set of instrumentally heterogeneous melodies accompanied by an emotional video. After a five-minute delay participants were tested on their recognition of the presented melodies. In these conditions, participants tended to recognize all of the melodies with few errors and no strong influence of affect. A second study was used to further investigate using a more difficult task. To reduce the ceiling effects, this test set incorporated a larger number of stimuli that were completely homogeneous in instrumentation (solo guitar). During the exposure phase participants heard stimuli with and without the accompaniment of an emotional video. Analyses were conducted to determine the influences of affect expressed in the music and in the video, in addition to the order of stimulus presentation and musical background/training by the participants. In contrast to the first experiment, participants had difficulty recognizing the stimuli particularly with the audiovisual context. More importantly, participants were found to have better recognition of the musical stimuli presented earlier in the presentation order, and with less distracting accompaniment. These results seem to suggest some of the constraints for encoding musical stimuli, and the specific contributions of affect for musical encoding.

This research was supported by a Research & Travel Incentive Award
**Rebecca Atencio, Honors College, Biology**

**Effect of adrenalectomy on expression of c-fos in the Hypothalamic Nuclei of BTBR T+ tf/J Mice injected with formalin**

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that is characterized by several behavioral phenotypes including abnormal social interactions, repetitive behaviors, and a decreased inflammatory pain response. BTBR mice are commonly used as models to study this disorder since they exhibit similar behavioral phenotypes. This study aims to focus on the reduced pain response seen in a subset of ASD children. Mediation of pain can be suppressed through beta-endorphins (central component) and cortisol (peripheral component). Previous research has shown the involvement of beta-endorphins in the reduced pain response seen. If cortisol is involved in the mediation of pain, the removal of that hormone should increase the pain response. The hypothalamic regions of the brains will be analyzed from animals that have received a bilateral adrenalectomy. We hypothesized that BTBR mice who undergo the bilateral adrenalectomy will have more FOS expression in the hypothalamus. Upon statistical analysis, cortisol does not seem to be involved in the pain suppression.

**Megan Baird, Undergraduate Student, Mathematics**

Faculty Sponsor: Prof. Jyoti Champanerkar, Mathematics

**Pharmacokinetics: The Metabolism of Everyday Drugs**

Pharmacokinetics is the study of the time course of drug and metabolite concentrations or amounts in biological fluids, tissues and excreta. It is used to study the data found as well as predict the outcome of future experiments. In this study metabolic concentrations are determined from injections and infusions of certain drugs. The amounts of drug in the blood after an injection, and after an infusion, are calculated using mathematical decay models. Loading doses, concentrations of a drug in the blood stream at different times, and steady states are compared for injections and infusions.

**Cara Berg, Cheng Library**

**The (Mostly) All Purpose Library Instruction Assessment**

The Cheng Library’s user education program sees more than 300 classes for library instruction each year. In those classes, librarians cover a number of different topics and concepts, tailoring their instruction to the course content or the research assignment the students are working on. An assessment was created for the library’s user education program and piloted for a month during the fall 2015 semester. The assessment, utilized in 2000-4000 level library instruction classes, measured student confidence and knowledge of the library session while looking at the learning outcomes used in each session. After a one month pilot, the assessment, after undergoing some changes, is currently being piloted again at the library for the spring 2016 semester. This poster will showcase the results from the 2015 pilot, the changes for the spring 2016 semester, and the implications for future use within the Cheng Library.
Alexa Bermudez and Rudensa Doda, Master’s Degree Students, Communication Disorders  
Faculty Sponsor: Prof. Dr. Vishwa Bhat, Communication Disorders

Title: The Effect of Sound Exposure from Musical Instruments on Hearing Sensitivity in Young Adults

A total of 30 college students between the ages of 18-25 participated in this study. There were two groups, one with music majors, and the other group was non-music major. The purpose of the study was three fold: a) was there any change in hearing sensitivity for 3000 through 6000 Hz between the two groups of students, b) those who wore ear protective devices helped to reduce the impact of loud sounds from musical instruments in comparison to those who did not wear the ear protective devices, c) types of instruments played and its impact on hearing sensitivity was evaluated. A two channel diagnostic audiometer was used to measure hearing thresholds using 1 dB steps between 250 to 8000 Hz. The analysis of results indicated that the students with music major have slightly decreased sensitivity. Additionally, hearing protective devices were not noted to reduce the impact of loud sounds from musical instruments on hearing sensitivity, possibly due to intermittent usage. Finally, this study will raise the awareness of hearing protection devices and a comprehensive understanding of intense noise exposure and the effects of noise induced hearing loss.

Emily Bieh-Mintah, Alexandra Ovits, and Amanda Silvestri, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health  
Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

Student Perspectives on Learning about the Social Determinants of Health and Applying the Social-Ecological Model through Watching The Wire

HBO’s groundbreaking television series The Wire has increased in popularity as a tool for educating students from various disciplines about issues related to life in urban America. Institutions such as Harvard and Johns Hopkins University have led the way to create entire courses based on this television series. The reason for this is that all five seasons of The Wire take the viewer through the gritty and heartbreaking realities of the consequences of social injustice and systematic oppression. The Wire has been utilized more in social work, urban planning, and sociology courses. However, it could be just as effective in public health courses. Although all five seasons of this television show offer the opportunity to explore health disparities and the social determinants of health, season four is the focus of this paper. Students in an undergraduate public health course at William Paterson University, titled Disparities in Health, viewed season four of The Wire as part of their final project. The purpose of this was to have them examine the social determinants of health and apply the social-ecological model using an innovative approach. Season four explores the relationship between an inadequate education system, concentrated poverty, corrupt political officials, the drug trade, lack of positive adult role models, and high incarceration rates. This poster presents student feedback regarding the experience of watching The Wire as a class assignment. Understanding the varied experiences of the students can help to inform future use of media such as The Wire in teaching public health courses and also offer beneficial information regarding this pedagogy.
Marina Bishara, Honors College, Legal Studies, Political Science

Political ideology of Sandra Day O’Connor

I have always been interested in the intersection of law and psychology, but not in the context of forensics, more in the context of the thought process that is involved in legal decision making. Sandra Day O’Connor was the first woman Supreme Court Justice and the so called "swing vote" during her tenure on the Supreme Court. This thesis involves the analysis of 28 of her most important decisions, in timeline order, as indicated by the Supreme Court Compendium, a major source for all Supreme Court data. From there, I am attempting to create a political ideological profile based on the way she reasoned and voted in these decisions.

Amanda Blazkiewicz, Honors College, Psychology

Perceptions of Sexuality

In a split second, judgments are made about other individuals based on their clothing, speech, skin tone, and gender. These observable characteristics may be used to make a vast array of assumptions. In my research project, I am interested in examining how we make assumptions about sexual orientation, and whether or not these assumptions are accurate and whether they are influenced by our sexual identity. Participants in my study were asked to fill out a survey with 20 questions, including one asking them to rate their sexuality on a scale of 1-7. They were then recorded performing a short interview. This clip will then be edited down and shown to another group of participants who will be asked to judge the sexuality of the person in the video clip. These results will be analyzed for accuracy and they will be evaluated with respect to how the constructs of sexual orientation, sexuality and associated judgments and assumptions regarding these constructs are correlated.

Nahshon Bolton and Janielle Hall, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health

Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

Hip Hop and Health: Using Instagram as a Cue to Action for Positive Health Behaviors

Hip hop music has often received a bad rap for promoting violence and other offensive content. However, in recent years there has been an increased movement among hip hop artists to promote health. Some hip hop artists have embraced this focus on wellness based on being diagnosed with various illnesses such as diabetes and hypertension; while others have embarked on personal wellness journeys for self-improvement. Some of these positive changes in lifestyle have been documented through photographs, videos, and comments on Instagram, an online mobile social networking service. One health practice that is growing in popularity within the hip hop community is juicing. Some rappers are opening juice bars in underserved communities that are plagued by health disparities. In this study, the comments on Instagram photos that were related to juicing and healthy eating, posted by rappers who have opened these juice bars in the inner city, were explored using the health belief model. Comments were coded based on the constructs of the health belief model: perceived susceptibility, perceived severity, perceived benefits, self-efficacy, and cues to action. The purpose of this study is to
assess whether these Instagram posts elicit the desire to make healthy lifestyle choices. Understanding how these health related photos are interpreted by users is important. Research has shown that Instagram postings are influential in impacting behaviors of the users and creating cultural norms. Specifically, for members of the “hip hop generation” who may suffer from higher rates of various chronic illnesses, receiving health messages on Instagram from those who they consider to be opinion leaders could be life changing. From a public health perspective, it is important to capitalize on the impact of both hip hop and social networking as innovative tools for health behavior change.

Reanna Bowles, Honors College, Elementary Education, Psychology

Anxiety in the Elementary Mind

Elementary school children, although not well represented in research, are plagued with anxiety issues much like adults are. Through our research we aimed to find the relationship between the anxiety level of the child and their school performance. A survey was created using the parent version of the Spence Children’s Anxiety Scale along with questions about the demographics of the child. The responses were attained through the distribution of the Qualtrics survey link via social media where parents reported on their children. It was found that the children who were above average had less overall anxiety than those on or well above grade level. As well it was found that children performing on grade level had a higher rate of generalized anxiety disorder. If future research were to be done a child report would be distributed along with the parent report.

Amanda Brady, Honors College, Anthropology

The Life and Times of Frankie C. Valentine

Amanda Brady has completed a 52 page manuscript that tells the story of love and misfortune centered around the experiences of Frankie C. Valentine.

Ashley Bujalski, Doctoral Student, Psychology

Faculty Sponsor: Prof. Megan Chesin, Psychology

Predictors of Borderline Personality Features in College Students

Risk factors for Borderline Personality Disorder (BPD) features in college students are not well known. We tested multiple early adverse experiences as predictors of BPD features and empathy as a mediator between sexual abuse and BPD features in 244 college students. Physical and sexual abuse significantly predicted BPD features. Empathy trended to mediate the relationship between sexual abuse and BPD features.

This research was supported by the Psychology Department
Ashley Bujalski, Doctoral Student, Psychology, and Elizabeth L. Jeglic, CUNY - John Jay College
Faculty Sponsor: Prof. Megan Chesin, Psychology

**Perspective Taking and Physical Abuse are Elevated in College Students with Recurrent Suicidal Ideation Compared to Those Without**

Assessed college students with past suicide attempt. Measured childhood maltreatment, recurrent suicidal ideation, and perspective taking using self-report assessments. Determined perspective taking and physical abuse distinguished college student suicide attempters who report recurrent suicidal ideation from past attempters who do not.

This research was supported by the Psychology Department

Tonee Burley, Honors College, Communication Disorders

**Eurocentric Beauty Standards and the Perception of African American Women**

The intent of this study was to examine students’ perceptions of African American women with varying skin complexions and hair textures. Given previous research and histories (regarding the matter), it was hypothesized that lighter skinned women and women with straight and long hair would be more favorably perceived than dark skinned women with natural hair (such as afros, dreadlocks, braids, etc.). Using an online survey, the study sought to explore views on skin color and hair texture, acknowledge the narratives of many African American women, as well as critically examine the views of those influenced by a Eurocentric standard of beauty.

Joshua Buscema and Savonis Osei, Undergraduate Students, Psychology
Faculty Sponsor: Prof. SoYon Rim, Psychology

**Tuning me with you: Affiliation motive and self-partner trait-matching in first impression contexts**

Previous research found that a person's self-concept is malleable and highly impacted by other humans and various situational influences. One powerful situational influence is the presence of another person with whom one wants to affiliate. A study conducted by Stacey Sinclair (2005) demonstrated that individuals will alter their beliefs to portray to another that they share similar views. In addition to belief mimicking, individuals will also mimic physical behaviors of others, such as face touching, when motivated to affiliate (Lakin and Chartrand, 2003). We propose that people who are motivated to affiliate engage in social tuning of one's traits with the traits of another person. We will observe the differences between individuals that are under the perception that they have to collaborate with one of two groups, each with varying traits. Social tuning will be evidenced in, for instance, higher ratings of the self on group-descriptive traits (e.g., creative) when motivated vs. unmotivated to affiliate with the group. A pretest of the stimulus materials has been completed and data collection is in progress.

This research was supported by an Assigned Released Time for Research (ART) award
Valerie Cadorett, Undergraduate Student, Aleksandar Kecojevic, Public Health  
Faculty Sponsor: Prof. Corey H. Basch, Public Health

**Sedentary Toy Advertisements and Images in a Popular Parenting Magazine: 2010-2015**

Current statistics indicate that one out of three children are overweight or obese\(^1\) (National Academy of Sciences, 2012) and the obesity epidemic among children show no signs of abating. The purpose of this study was to analyze and describe the kinds of children toys advertised and the number of pictures of sedentary and non-sedentary children pictured in the popular parenting magazine, "Parents". A total of 72 issues of "Parents" magazine from January 2010 to December 2015 were reviewed. There were 6,428 advertisements in "Parents" magazine. Of these advertisements, 167 of them were for toys. Almost all, 97.6%, of the toys were classified as sedentary. 81.44% of the toy advertisements had the presence of a cartoon character in it. The most common marketing theme used to promote the toys was "make you smart" (50.90%) followed by "fun" (16.17%). There were 11,018 children pictured in the magazines and 88.34% of them were sedentary. Parenting magazines serve as a platform for advertisers to target children and their caregivers. Magazines, and the advertisements contained within them, serve as a vehicle to convey health information and possibly may influence numerous parents.


Brianna Campo, Honors College, Professional Sales

**Business Students' Attitudes towards Relocation for Job Opportunity**

The purpose of this research is to determine business students’ attitude toward relocation for a job opportunity. It will determine what specific factors influence a business student to relocate after graduation. The study will mainly assess the differences of opinions among business students of different majors, genders, and other factors that would influence them to be for or against relocation. The Conservation-of-Resources Theory, as well as previous expertise about how individuals struggle to change, will be used to understand the personality qualities and social orientations that determine job-related relocation inclination. Quantitative research will be conducted through surveys, which will be given directly to business students at William Paterson University. The anticipated results of the research are that business students are more willing to relocate internationally for their first job out of college, only if the pay is good. Another anticipated result is that business students are more willing to relocate for job opportunity if there is a significant incentive such as a signing bonus, increased salary, tuition expenses coverage, etc. Lastly, we can assume that business students are willing to relocate, as long as they have strong support from their families and friends.
Brielle Chamberlain, Honors College, Communication Disorders

Can God Control My Anxiety?

Research on prayer and anxiety has yielded mixed results in the past. Prayer is too varied among individuals to be considered one unchanging variable. Attachment to God, prayer type, and frequency are a few of the many factors that research has shown to have an impact on the correlation between anxiety and prayer. We sought to further explore the correlation to anxiety and six different prayer types using the Structure of Prayer Scale (Luckow, 1997) as well as spirituality using the Daily Spiritual Experiences Scale (Underwood, 2002). Participants were of a variety of ages and religious backgrounds. We found no correlations between anxiety and prayer type and a significant negative correlation between anxiety and spirituality.

Unnati Chauhan, Honors College, Biology

Long-term Effects of High Light Intensity on Growth, Toxicity, and Gene Expression of the Florida Red Tide Dinoflagellate, Karenia brevis

Karenia brevis is the dinoflagellate responsible for harmful algal blooms off the coast of Florida. Brevetoxins produced by K. brevis are synthesized by polyketide synthase enzymes (PKS); however, little is known about factors that influence toxin production. Previous work suggesting a link between toxicity and photosynthetic processes led to the hypothesis that long-term exposure to high light intensities will affect growth, brevetoxin production, and PKS gene expression in toxic and non-toxic strains of K. brevis. Both strains, toxic and non-toxic, when placed under the high light treatment experienced higher photosynthetic stress when compared to the control treatment. Assessing these differences in growth along with changes in PKS protein abundances and toxicity will increase our understanding of the role of brevetoxins in light processes and the effects of light on toxicity and gene expression, which will allow for better bloom management in the future.

Courtnaey Chelf, Honors College, Communication

Traumatic Brain Injuries in the Military

Repetitive brain injuries seem to be a bit of an occupational hazard of being in the military. This paper examines the various aspects of brain injuries suffered by combat veterans and their implications. It specifically addresses mild traumatic brain injuries prevalence, diagnosis, treatment, and potential long term effects. It also discusses the possibility of combat veterans suffering from chronic traumatic encephalopathy and its impact on future research.

Mung Chiang, Arthur LeGrand Doty Professor of Electrical Engineering, Princeton University

UPS Computer Information Technology Distinguished Lecture Series

SDP: Smart Data Pricing from Theory to Deployment

Technology and economics are intertwined in our networked life. In mobile and in cloud, Smart Data Pricing asks the questions: “how to charge services,” “whom to charge it to,” and “what to charge it for.” Usage pricing, peak-valley pricing, open toll-free, and spot pricing are
some of the examples where theory is rapidly turning into deployment around the world. Through a combination of modeling, analysis, system architecture, implementation, and user trials, SDP holds the promise of creating win-win across network operators, content providers, and consumers.

Sarah Ciccarelli, Honors College, Classical Voice Performance

*Philosophy of Music: A Synthesis of Arthur Schopenhauer’s “The World as Will & Representation” and Nelson Goodman’s “Languages of Art”*

Any experience we claim to know has come to our knowledge through our five senses, but it is not only these senses through which we perceive. Residing in our faculty of knowledge are conditions a priori of the very possibility of experience, and these conditions are space, time, and causality. Our mind within that understanding is responsible for perception of the world as representation, and our experiences are representations resulting from said perception. What we truly experience beneath the representations are pure objectifications of the inner nature of the world—the will. Music, by also existing as a pure expression of the will, influences our world as representation by directly impacting the context which informs our mind’s perceptive process. The experience of music is therefore the clearest mirror into the will, giving us ultimate knowledge of the world as will and ultimate satisfaction apart from the will.

Zhiyuan Cong, Art

*Journey Long and Long Journeys: Zhiyuan Cong Art Exhibition at the National Museum of China*

A report on this June 2015 exhibition in the National Museum of China, a world leader in the developing field of cultural relics. The presentation will include photographs and video.

This project was supported a Research & Travel Incentive Award and the College of Arts and Communication

Cherilyn Conner, Undergraduate Student, Mathematics and Cognitive Science Honors Track

Faculty Sponsor: Prof. Amy Learmonth, Psychology

*The Use of Electronics to Teach Students with Autism About Emotions*

Many individuals who have been diagnosed with Autism Spectrum Disorder (ASD) have an impairment in emotion recognition. The current study explored if the use of an emotion matching game on an iPad can help teach a four-year-old with a pervasive developmental disorder- not otherwise specified (PDD-NOS), which under the new DSM-five would be considered ASD, to recognize emotions. The participant played a facial affect matching game once per session for a total of six sessions. Sessions took place on different days over a four-week period; sessions were never on consecutive days. On the first and last session the participant was also given flashcards to sort into groups. The game recorded if the participant correctly matched the faces as well as how long they took to respond. Upon completion average time and accuracy were analyzed across sessions, emotions, and tiers. Results for the iPad task over the six sessions were that there was an overall negative correlation between
time on the task and accuracy (r=-.71). As the participant spent more time studying the faces on a given trial, the less accurate he tended to score. Results for the matching task indicated the he was most accurate with sad (100% correct) followed by happy (75% correct), surprised (25% correct) and finally angry (0% correct). The results on the sorting task are consistent with previous research that found that happy and sad are the easiest emotions to recognize (Bekele et al., 2014; Serret et al. 2014).

**Stephanie Costa, Honors College, Biology**

*Effects of Phosphate Limitation on Growth Rate, Brevetoxin Production, and Gene expression in Karenia brevis*

Karenia brevis forms near-annual harmful algal blooms off the coast of Florida. The harmful effects of K. brevis are due to its production of brevetoxins, which are synthesized by polyketide synthase enzymes (PKS). Previous studies revealed that phosphate limitation decreases K. brevis growth rates but increases cellular brevetoxins. Expanding on this work, this study tested the effects of phosphate limitation on growth, toxicity and PKS expression in toxic and a non-brevetoxin producing strains. Toxic and non-toxic strains were acclimated to phosphate limited media for 5-6 months. Both strains grown in phosphate limited media experienced an extended two-day lag phase compared to controls. Assessing these differences in growth in conjunction with changes in PKS expression and toxicity will provide further insight into the effects of phosphate limitation on brevetoxin production. Understanding environmental conditions that increase brevetoxin biosynthesis can aid in bloom mitigation for coastal communities plagued by K. brevis blooms.

**Rebecca Costantini, Master’s Degree Student, Communication**

Faculty Sponsor: Prof. Dr. Soo-Kwang (Klive) Oh, Communication

*Geotagging crisis public relations: The implications of localized messages and Planned Parenthood*

This study examines the implications localized messaging about Planned Parenthood has on crisis public relations, revealing the importance of streamlined messaging and media relations in public policies PR. Localized tweets about Planned Parenthood in relation to the July 2015 Center for Medical Progress alleged video footage were assessed to understand the correlation between the context of the tweets and the Twitter users’ geotags. The preliminary research revealed that direct communication-related engagement between Planned Parenthood and the universal Twitter population is needed. While Planned Parenthood has official organizational Twitter accounts (e.g. @P Pact, @PPFA), the content facilitated by Planned Parenthood’s regional Twitter accounts is not as frequently curated with organizational messaging and support. In response to the preliminary findings, the researcher asserts that there is an inherent need for localized, streamlined messaging and media relations in public policies PR, especially surrounding controversial nonprofit organizations, such as Planned Parenthood.

This research was supported by the Student Research and Creative Expression Program
Jessica Couper, Honors College, Nursing

Transforming Birth Culture in the United States: The Relationship Between Interpersonal Processes of Care as exhibited by the primary care provider and The level of Maternal Satisfaction with The Birth Experience

This study explored the relationship between interpersonal processes of care (IPC) as exhibited by the primary care provider and the level of maternal satisfaction regarding the birth experience in a sample of women who gave birth in the USA.

A low level of maternal satisfaction regarding the birth experience has immediate and long term effects including postpartum depression, PTSD, future abortions, negative feelings towards her infant, poor adaptation to the mothering role and breastfeeding problems.

Social media was used to recruit 2,935 participants for this study. A significant positive relationship between interpersonal processes of care and maternal satisfaction was found ($r=0.698$, $p=0.000$, $n=1862$). A secondary analysis found that women who reported using physicians scored lower, on the average, than those who reported using midwives in both the BSS-R scale ($z=-17.815$, $p<.001$, $n=1862$), as well as the PIPC scale ($z=-21.343$, $p<.001$, $n=1862$).

Nicole Davi and Rose Oelkers, Environmental Science, Jessica Geary, Undergraduate Student, Environmental Science, and Roseanne D’Arrigo, Lamont-Doherty Earth Observatory of Columbia University

A long-term context (931-2005 C.E.) for rapid warming over central Asia and introduction to a new climate proxy

Our understanding of long-term temperature variability and its causes is extremely limited in remote Central Asia, due to short and sparse meteorological data, as well as a paucity of long-term, high-resolution, temperature-sensitive proxy records. Instrumental records, typically only reaching back to the 1940s or later, show that temperatures in central Asia have been increasing rapidly, particularly since the mid 1990’s, and are currently warmer then at any other time in recorded history. We develop a millennium length (931-2005 C.E.) tree-ring width chronology from larch trees growing at elevational treeline (2400m) sites in Mongolia, where the dominant limiting factor for growth is temperature. The chronology and reconstruction, from a site named has a large sample depth (> 200 samples) and can be calibrated and validated using regionalized meteorological data from Mongolia and Russia. The reconstruction allows us to evaluate temperature variability and extremes over the past millennium in Central Asia, a region that is warming faster then many places on Earth. It also places recent warming trends into a long-term context, contributes to our understanding of spatial patterns of the Medieval Climate Anomaly and the Little Ice Age across Asia, and provides evidence of significant volcanic influence on Central Asia temperature. Novel Blue Light Intensity methods demonstrate that blue intensity reflectance significantly improves the climate signal of temperature sensitive tree-ring width chronologies from Central Asia and will lead to additional millennial length reconstructions from several sites that were not previously possible using ring-width alone.

This research was supported by an Assigned Released Time for Research (ART) award, National Science Foundation DUE-1405664
Joseph DeGaetani, Honors College, Mathematics

*An Exploration of Cryptography*

Cryptography is the art of writing and solving codes. Early ways to encode were very simple, permuting letters and changing symbols. These methods weren’t secure or rigorous, as letter frequency wasn’t disguised among other mathematical issues. This presentation offers a glimpse into where mathematics has taken the field of cryptography and what makes the Elliptic Curve Cryptosystem secure.

Aurea Jane De Leon, Undergraduate Student, Public Health
Faculty Sponsor: Prof. Corey Basch, Public Health

*Unhealthy Lifestyles of Working College Students*

A report from the American Association of University Professors noted that combining work and school generate high levels of stress and anxiety that can influence whether students can graduate.¹ Sleep and nutrition also play an essential role in good health and well-being throughout one’s life.² However, employed college students are reported to have less hours of sleep than the recommended amount and are at risk of poor quality of diet.³ The purpose of this study is to determine to what extent does jobs or internships affect the lifestyles of employed college students in terms of sleep, stress and nutrition. Questionnaires were distributed to 103 William Paterson University students in their classrooms to participate anonymously. About 83% of participants reported of being engaged in some type of jobs or internships during their undergraduate education. Findings indicate that increasing work hours result in a higher percentage of students reporting to struggle managing their time between courses and job. We also observed that as the amount of work hours rises, a higher percentage of students disagree with having time to prepare their own meal, thus affecting their nutritional status. These findings suggest that William Paterson University needs to make more efforts in helping students manage both school and work load, possibly by getting the faculty and administration more involve.


Kyle Nicole Deveza, Honors College, Secondary Education

*Manipulation of Montesquieu’s doctrine on the Separation of powers by Federalists & Anti-Federalists*

I show the influence of French Philosopher Montesquieu and his interpretation of separation of powers. More specifically, I assess the manipulation of Montesquieu’s doctrine of separation of powers by Federalists and Anti-Federalists during the creation of the United
Jonathon Dragon, Honors College, History

The Personal Religion of Henry VIII

My thesis is based upon the personal religion of King Henry the VIII of England. In my thesis, I argue that in spite of the fact that he reformed the Church of England to a more Protestant style faith, Henry himself never really changed his own Catholic beliefs. I believe that this is clearly indicated by the primary source documents I intend to use, as well as in the publications of several modern historians. Henry was a devout Catholic before the Reformation, and it would seem that his faith never wavered, despite his decision to reform the Church in England. The decision was beneficial to him in other ways, and it is because of these other benefits that Henry chose to reform the church, not because of a spiritual awakening.

Kaitlin Anne Elliott, Honors College, Psychology

Stronger

Kaitlin Elliott has completed a creative nonfiction piece that tells the story of a family of four that suffers a devastating loss after a storm hits their small shore town. The project was supervised by Dr. Philip Cioffari of the English Department.

Precious Factora, Honors College, Nursing

Transforming Birth Culture in America: The relationship between interpersonal processes of care as exhibited by the primary care provider and the level of maternal satisfaction with the birthing experience

Umbilical cord clamping is a universal standard intervention. However, the optimal time for this intervention to occur remains a controversial issue. While it is common practice to clamp and cut the umbilical cord immediately after birth, there remains debate whether this is the best practice as opposed to delayed clamping. This study examined existing literature and determined its effects on overall health of pre-term and term infants. The purpose of this systematic review was to collect evidence of the effects of timing of the clamping in order to establish a consistent national standard of practice. A review of randomized controlled trials comparing the effects of early versus delayed cord clamping on infant outcomes was performed. Analysis of the existing literature revealed that delayed cord clamping is beneficial in pre-term and term neonates. Further randomized clinical trials are needed to confirm the implicated benefits of delayed cord clamping.

Laura Fattal, Faculty, Elementary and Early Childhood Education

Bilingualism and Project Arts-Based Learning

Bilingual students' cognitive, affective and social engagement in academic content is expedited through participation in project arts-based learning. Project-based learning is student-centered
and focuses on realistic and complex tasks. The national arts standards advocate for teaching and learning inclusive of the creative process, history, performance and aesthetic understanding for all students. Bilingual students’ academic achievement and language acquisition are examined and analyzed through the pedagogical lens of project arts-based learning in an urban bilingual third grade classroom.

This research was supported by an Assigned Released Time for Research (ART) award

Franziska Anja Federico, Honors College, K-12 Secondary Education

British Conduct Books of the 18th and 19th Centuries: Perpetuating the Subjugation of Women

This project examines British conduct literature from the eighteenth and nineteenth centuries by focusing on the common elements, purposes, and themes of this genre, the traits embodied by the ideal Englishwoman, and/or the means by which this model restrained her. Topics discussed in this work include the social and personal duties of women, views on education, views on morality and religion, and, finally, the desirable and undesirable characteristics of women. During these eras, conduct books were regarded as helpful handbooks that would guide young ladies towards morality, gentility, sensibility, purposefulness, love, and the recognition of their social responsibility; however, even though the genre attempted to convey the glory and honor that could be earned by being modest, sensitive, meek, and loyal, they served more as the means of inhibiting feminine mobility, independence, and self-actualization in a male-dominated society.

Stefanie Fischer, Honors College, Art (Graphic Design)

Anti-smoking Campaign

Art and design have been used throughout history to communicate with people as well as to advertise to consumers. Most people don’t recognize design and the effect it has on all of us each day. The seduction of design can be very powerful, but the Big Tobacco companies abuse this power to trick people into buying a product that will eventually kill them. Of the more than 2.4 million deaths in the USA annually, over 480,000 are caused by smoking.

I love art and design and it pains me to see it used in such a horrible way. Cigarette and smoking advertisements are indirectly killing people. My thesis work incorporates the communication with consumers through the art and design of advertising. My process involves using the power of design in an attempt to fight the Big Tobacco companies and to get viewers to think twice about that next cigarette.

Aviv Florenthal, Honors College, Financial Planning

Values that Millennials want in a Financial Advisor

Aviv is a senior at William Paterson University studying both Financial Planning as well as Professional Sales. His interest in financial planning and behavioral finance has led him to develop and research a thesis on the topic of financial planning for the millennial generation.
Coming out of college, he hopes to create a successful career for himself as a financial advisor and assist others in achieving their financial goals.

**Hannah Frankovits, Honors College, Elementary Education/ TSD**

*Exploring the Diversity of Social Networks*

In the twenty-first century, the Internet has become a dominating platform for communication and with it, our ability to reach distant regions and diverse populations has increased. But what effect has the Internet and social media in particular, had on Americans’ personal networks? This ethnographic research project explores the nature of social networks among Americans of different races, genders, and ages. It examines the Twitter accounts of public figures and the text messages sent by friends to their most recent contacts. It uses interviews to understand how individuals feel about their personal networks and the use social media outlets. This study’s findings suggest that networks are not becoming more heterogeneous, but rather more homogenous with Internet use, despite Internet use being more extensive. These findings raise questions about the nature of personal networks and the role that technology might play in shaping them.

**David Fuentes and Elizabeth Brown, Early Childhood and Elementary Education**

*Using Video to Evidence Effectiveness in Student Teaching*

As of the fall of 2017, New Jersey State Teacher Licensure Requirements are changing to require teacher candidates to complete the EDtpa performance assessment in order to obtain a teaching license. This change poses a challenge for colleges of teacher education as they must move quickly to adapt the new standards and ensure student success. Among the biggest challenges posed by these changes are the requirement for student teaching to be filmed and used by the candidate in a series of reflection scenarios based on the video. This presentation discusses the researcher efforts to find software that meets the needs of the student in performing and completing the EDtpa video component. Pros and cons of various software will be discussed, and a description and discussion of Interactive, the software that will be used at WPU, will be presented.

**Jonathan Gabriel and Mihaela Jitianu, Chemistry, Shadrak Dugbatey and Andrei Jitianu, Chemistry, Lehman College, City University of New York**

*Nanosized Cr(III)-Layered double hydroxides*

Layered double hydroxides are a large class of layered materials and have diverse technological applications that include anion exchangers, stabilizers for polymers, catalysts precursors, medical applications as antacids controlled release, soil remediation due to their potential capacity to immobilize heavy metal ions and other contaminants present in soil. Stichtite-like compounds are naturally occurring anionic clays with a layered structure and usually have the general formula \[ \text{[Mg}^{2+}_{x-1} \text{Cr}^{3+}_{x} \text{(OH)}_{2} \text{]} \text{(CO}_3^{2-} \bullet m \text{H}_2\text{O)} \]. Compounds with formula \[ \text{[Mg}_{4} \text{Cr}_{2} \text{(OH)}_{12} \] \text{CO}_3^{2-} \bullet 24\text{H}_2\text{O} \] were prepared successfully by two methods: coprecipitation and sol-gel, as identified by X-ray diffraction and FT-IR spectroscopy. While coprecipitation is a one-step
process, the sol-gel synthesis for these compounds is very complex and involves, besides the sol-gel process, an anion exchange step followed by a hydrothermal treatment. Yet, the sol-gel pathway, known for its capability to go all the way from the precursor to the product, led to much smaller hexagonal platelets with special features as revealed by FESEM micrographs.

This research was supported by the College of Science and Health Center for Research.

Eve Lily Galen-Harris, Honors College, History

Deconstruction of Mythological Archetypes

The trickster archetype exists across cultures. They can be found in stories across countries and across time. They can be found in both myths and folklore as well as more contemporary works. However, while these tricksters exist cross culturally, the ways that they are both portrayed and handled tends to vary drastically from story to story. When studying the stories in which tricksters star as the main character it is possible to see the differences in treatment with regards to how the trickster’s actions are received as well as how they are or are not punished. These trends can often give insight into the morals and views of the cultures that created these characters. The results of this research shows that trickster gods follow certain trends across cultural myths and that the nature of these myths are heavily informed by the cultures values.

Jessica Geary, Undergraduate Student, Rose Oelkers and Nicole Davi, Environmental Science, Jesper Björklund, Swiss Federal Research Institute WSL, and Rosanne D’Arrigo and Laia Andreu-Hales, Lamont-Doherty Earth Observatory of Columbia University

An International Comparison of Tree-Ring Density

Tree-ring records have been used to understand how climate has varied over the past 2000 years and to put global warming into a long-term perspective. Maximum latewood density information derived from the intensity of blue light reflectance (BI) of the latewood portion of tree rings is a new method of tree-ring analysis that strongly correlates with instrumental summer temperatures. In many cases BI density captures a stronger climatic signal compared to ring width information that is more typically used in dendroclimatic studies. As this new method emerges, it is important for the tree-ring community to understand which methods are the most productive. The purpose of this international comparison study is to analyze the differences between methodologies used at various international laboratories, and to determine which methods are producing the strongest density signals. At this stage, laboratories from across the globe are all focusing on one site in Moyryvaara, North-eastern Finland, using various methods to process the same samples. The results will be shared and collaboratively published. At WPU, the Pinus sylvestris L (Scots Pine) cross sections from the site were extracted in acetone for 96 hours, and were then sanded with a maximum grit of 400. The sections were scanned in 2400-3200 dpi using Silverfast. CooRecorder software was then used to measure blue intensity, ring width, and earlywood-latewood. From this data, the tree-ring community, will make comparisons of the paleoclimatic skill, and fidelity to absolute wood density, which hopefully can lead to improvements of best practices and a harmonization of the community. This will be very useful for the tree-ring community.
Michelle Gonzalez, Special Education and Professional Counseling & Educational Leadership

*Engaging Online Students with Web 2.0 Technologies and UDL*

The purpose of this presentation is to share pedagogical elements added to an online course with the intent to increase student engagement. Elements such as the use of Voice Thread for both feedback and presentations, role-play software, collaborative groups to complete case study assignments, small group discussions, synchronous office hours, and detailed specific feedback from the instructor were all utilized. Lastly, student feedback regarding the added pedagogical elements will be shared.

Elena Grady, Honors College, Communication (Broadcast Journalism)

*The History of Women's Professional Soccer*

The United States’ women’s national soccer team is one of the most successful in international women’s soccer, winning three World Cups and four Olympic gold medals since the start of the program in 1985. With charm and athleticism the US women’s team transformed a nation otherwise largely indifferent to the game of soccer into fans overnight. This paper examines the history of the program’s success while delving into the different leadership roles that helped contribute to the many accomplishments the team and players achieved both on and off the soccer field, such as social issues involving increased awareness of the LBGT community, increased participation and popularity of the sport for younger girls, and the successful development of Title IX.

Timothy Greendyk, Honors College, Environmental Science

*The Presence of Pharmaceuticals in Drinking Water*

Water is a substance that is central to all life on the Earth, and ultimately dictates the existence of human beings. Over the years, purification methods for human consumption have developed from a simple removal of suspended solids by filtration in ancient Egyptian times to modern water treatment plants, providing water for thousands of people every day. However, there is rising concern regarding the presence of pharmaceuticals in water leaving treatment plants. This study will seek to answer whether or not the presence of pharmaceuticals in drinking water should be of concern to the human population based on scientific research. The ethics surrounding the disposal, fate in the environment, and human exposure to pharmaceuticals will be considered in addition to an analysis regarding the future concerns and potential resolutions.

Michael Grella, Honors College, Psychology

*Duration of Processing Images Produces False Memory Susceptibility*

Previous research has suggested that individuals are susceptible to false memory formation. Loftus (1995) showed that we may “plant” false information into an individual’s brain through multiple sessions of suggestion. In this study we look to see how exposure duration influences the susceptibility of false memory formation. Fifty slides of a man breaking into a car were
presented to each participant at either 3.5 seconds or 1.7 seconds. Here we test the theory that with less time to process an image an individual will be more likely to be susceptible to false memory formation. After completing a filler task and hearing an audio recording giving misinformation in regards to the video, subjects were tested on their recall accuracy by completing 18 questions regarding the video they watched. Of these 18 questions 11 were critical such that they coincided with the misinformation.

Michael Grella and Maitry Mahida, Undergraduate Students, Psychology, Ryan Salim, Doctoral Student, St. John’s University, and Dana Chesney, St. John’s University
Faculty Sponsor: Prof. Natalie A. Obrecht, Psychology

Confirmation that argument evaluation induces deliberation.

People often base judgments on stereotypes, even when contradictory base-rate information is provided. Consider this example problem from De Neys and Glumicic (2008):

“In a study 1000 people were tested. Among the participants there were 3 doctors and 997 nurses. Paul is a randomly chosen participant of this study. Paul is 34 years old. He lives in a beautiful home in a posh suburb. He is well spoken and very interested in politics. He invests a lot of time in his career. Do you think Paul is a doctor or a nurse?”

People generally favor stereotype answers (e.g. Paul sounds like a doctor) over base-rate answers (e.g. Paul is more likely to be a nurse given 997/1000 nurses). It has been suggested this occurs because people fail to engage in the deliberative reasoning needed to process numerical base-rate information, and instead rely on intuitive processes which more strongly support stereotype information. Consistent with this account, Obrecht and Chesney (2016) showed that having people evaluate arguments in support of using base-rate data (which presumably requires deliberation) was sufficient to increase base-rate use. In the current study we test this assumption that evaluating arguments leads to deliberation. Participants completed problems like the example above, but additionally were asked to either evaluation arguments supporting base-rate/stereotype use or merely recall information before making their judgment. We expect subjects to take longer to evaluate arguments than to recall information, demonstrating that deliberative processing is engaged during argument evaluation.

This research was supported by an Assigned Released Time for Research (ART) award

Michael Griffiths, Martin Becker, Bryan Gonzalez, Sanserei Aiah Pilapil, and Fatima Popcakova, Environmental Science, Robert Eagle, University of California – Los Angeles, and Yair Rosenthal, Rutgers University

$^{13}$C and $^{18}$O (“clumped”) isotope reordering in shark tooth bioapatite: can this be a tool to constrain past seawater chemistry?

Clumped isotope thermometry is an emerging geochemical technique that is based on the thermodynamic preference of $^{13}$C and $^{18}$O to form bonds, or “clump”, with each other in the
carbonate mineral lattice, and to date has primarily been used for analysis of mass 47 \text{CO}_2 (^{13}\text{C}^{18}\text{O}^{16}\text{O}). The basis for the clumping of these heavier isotopes into bonds with each other relies on the principles of quantum mechanical and statistical thermodynamics, which predict that multiply-substituted isotopologues of \text{CO}_2 have lower free energies, and hence are more stable, than isotopologues with one or no heavy isotopes. This thermodynamic preference for clumped isotopologues in calcium carbonate can thus form the basis for a single-phase temperature proxy that is independent of bulk isotopic composition. The primary objective of this pilot project was to establish the modern \(\Delta\nu\)-temperature relationship in biogenic apatite from the teeth of both aquarium-reared and wild-caught sharks from a range of ambient water temperatures. We compare this calibration equation with other \(\Delta\nu\)-temperature equations derived from both inorganic calcite and biogenic apatite, and find that the technique does a good job of constraining the actual sea surface temperature of the ambient seawater from the aquarium sharks reared at ~25–26 °C. In addition, the technique also constrains the range of estimated migration seawater temperatures of shark species caught from both the high and low latitudes, and from different depths in the ocean.

This research was supported by the College of Science and Health Center for Research, American Chemical Society Petroleum Research Fund (Doctoral New Investigator)

**Peter Griswold and Jeanne D’Haem, Special Education & Counseling**

*Enhancing the Role of Student Teacher Supervisors in Facilitating Practice in Parent Interactions*

At the beginning of the semester, twenty-nine university supervisors were presented with information regarding the value of parent-teacher partnerships. They were provided with a list of 13 specific activities in which student teachers could practice parent-teacher interactions. These included attending parent-teacher conferences, providing information to parents, and seeking information from their mentor teacher about parent-teacher interactions. A survey completed at the end of the semester indicated that all of the supervisors had suggested one or more of the activities. The number of supervisors recommending each activity was tabulated. No supervisor encouraged their student teachers to interview a parent. The other twelve activities yielded percentages in the range of 48 to 86%. Smaller numbers of supervisors reported encouraging mentor teachers to provide opportunities for student teachers to interact with parents. Discussions in which student teachers reported on their interactions with parents were also more limited. In comments, supervisors consistently emphasized the importance of preparing student teachers for interactions with parents, deplored the lack of opportunities, and offered specific suggestions for teacher to parent communication. A mean rating of 3.35 on a five-point Likert scale indicated a mostly neutral impression of mentor teachers’ openness to having their student teachers interact with parents.

**Sydney Grosser, Honors College, Communication Disorders**

*Beauty and the Beast: Modern Media Edition*

Is the media actually altering our perception of beauty? Past research has suggested this to be true, but other influences like ethnic background may play a role as well. In the present study media influence and exposure is evaluated along with body type preference and effect of
ethnic background. It is expected that the more exposure and influence one has to the beauty-ideal-centered media the more likely a preference for thinner body shapes is present. Although if the participant resonates strongly with a Non-Caucasian ethnic group, like Hispanic or Black-American, this social influence may override the mass exposure and influence of the media leading them to prefer thicker body shapes. To test this a survey was used including multiple measures evaluating media influence and exposure, resonation with ethnic background and body type preference.

Amberly Gurbisz, Honors College, Nursing

The Effects of Childhood Obesity: Beyond the Physical Manifestations

Childhood obesity is a rising phenomenon that places millions of children’s health and well-being at risk. Guided by Dorothea Orem’s Self-Care Deficit Theory, this study hypothesized that children with a BMI categorized as “overweight” or “obese” would academically perform worse than “normal weight” children.

Information was collected through convenience sampling of 5th-7th grade students attending Richard Butler Middle School in Butler, NJ. Academic performance was assessed by collecting standardized state test scores from the NJ-ASK. Weight and height were measured and growth reference charts were used to calculate each child’s BMI. Overall mean NJ-ASK score for average weight students was slightly higher compared to obese students. Pearson’s correlation demonstrated a very weak negative correlation between BMI and NJ-ASK score, with -0.195 being most significant; however, Chi-Squared concluded that there was a high likelihood that results could have happened by chance (P=0.224-0.903). Further research is needed to better ascertain these results.

Xiana Gutierrez, Honors College, Nursing

The Phenomenological Beliefs of Young Adults Diagnosed with Substance Abuse Disorders and Mental Illness

Many sources state that there is a definite connection between mental illnesses and the use of addictive substances, yet current research studies that focus on this comorbidity state that there is a noticeable lack of qualitative research on this topic. In an attempt to decrease that gap, a qualitative methodology was utilized in this study, which evaluated the patient perspectives of young adults with substance abuse disorders and mental illnesses. A semi-structured interview format was used in the data collection of this study to survey 10 young adults in the partial hospital program of a behavioral health facility. The results found that the patients believed that substance abuse disorders exacerbate the symptoms of mental illnesses, surroundings stressors can easily cause a relapse despite the use of medical interventions, and that earlier separation from the peer or environmental influence that caused their addiction could have prevented the need for medical interventions. This type of research has the potential to enhance therapeutic relationships among patients and clinicians and provide more insight into the phenomenological beliefs of patients with this type of dual diagnosis.
Deglacial climate variability in northern New Jersey inferred from a lake sediment core

We present a lacustrine record from Lake Blauvelt (LB), Franklin Lakes, New Jersey, which records past regional climate variability since the last deglaciation. The six-meter sediment core is constrained in absolute time by ten radiocarbon dates on seeds and wood fragments, and reveals a complete paleolimnology record back to ~15,000 years B.P. The core was divided into ten-centimeter sections, and one-gram samples were extracted at 3-4 cm intervals for analysis. Particle size analysis, which can be an indicator of lake recharge related to rainfall and/or glacial meltwater, was performed on sediments using a Shimadzu particle size analyzer. Total organic carbon (TOC) and total nitrogen (TN) was analyzed on the same subsamples. Paleomagnetic analyses including magnetic susceptibility (MS) and anhysteretic remnant magnetization (ARM) was also conducted.

These proxies reveal similar patterns of variability, whereby periods of larger-grained sediment input into the lake occur in sync with higher TOC and TN values and vice versa, indicating that both proxies likely reflect changes in lake recharge. These patterns are validated by similar Holocene patterns in C/N, ARM, MS, and sedimentation rates. The general trend towards increased lake levels in northern NJ (and the northeast US as a whole) during the Holocene can best be explained by higher annual P-E due to increasing winter insolation (more winter precipitation) and decreasing summer evaporation (declining summer insolation). Superimposed on the general increasing trend in LB lake levels is a major step-change during the mid Holocene (~4.5-5 kyr), signifying an abrupt transition to higher lake levels in NJ that is matched by increased storm frequency in New England and declining regional air temperatures.

Strengthening the climate signal in tree ring records using blue intensity methods: Gulf of Alaska

Dendrochronological records from Juneau Mountain, Alison Point, and Wolverine Glacier are being used to reconstruct regional climate variability in the Gulf of Alaska over the past 450 years. Previous research using these core samples has been conducted using the traditional ring width method, however this current research involves the use of the more contemporary method blue intensity (BI). This method involves measuring the intensity of blue light reflectance to measure the latewood ring density of the annually formed rings. The measure of latewood density offers a stronger climate signal than the traditional ring-width method and will strengthen previous reconstructions of climate variability in the Gulf of Alaska. High-resolution images were produced of each tree core sample in order to measure the BI using CooRecorder v8.1 software. Using these new BI density measurements, a master chronology will be produced using all samples, in order to reconstruct climate variability. Using an online analysis tool called KNMI Climate Explorer, this master chronology will be correlated against instrumental climate records in the Gulf of Alaska region in order to show the relationship between tree density (BI) and recorded climate data. A strong correlation with instrumental
records will allow us to infer climate conditions predating instrumental records in the Gulf of Alaska.

Emily Houwen, Honors College, Nursing

Workplace Violence Against Nurses

Workplace violence is a prevalent occurrence for registered nurses working in any health care setting and can be inflicted by patients, patients’ families, and even nursing peers or other healthcare professionals. This systematic review examines the existing literature to identify the adverse effects that workplace violence has on registered nurses. The purpose of this study was to raise awareness to the occurrence of workplace violence and the negative outcomes that directly affect nurses. Ten studies met the inclusion criteria and were examined. The outcomes of these studies found that nurses who experience workplace violence report increased depression symptoms, work-related stress, anger and anxiety, and decreased job satisfaction, job performance, and morale. The information found in this study can promote the development of prevention strategies for nurses who are at risk for workplace violence and treatment programs for nurses who have experienced workplace violence.

Manina Urgolo Huckvale, Irene Van Riper, Jeanne D’Haem, Michelle Gonzalez, Peter Griswold, Pei-Lin Weng, Carol Maniscalco, and Alexandra Gitter, Special Education and Professional Counseling

Nature and Needs of Individuals with Autism Spectrum Disorders and Other Severe Disabilities

A resource for preparation programs and caregivers, this presentation is based upon a recently published book by Special Education faculty. "A treasure chest of teaching strategies for individuals with autism..." "An invaluable and unique contribution for all educators and parents who design curriculum, teach, and care for people with autism or other severe disorders that impact learning in profound ways."

Anoush Kalachian, Honors College, Nursing

Nurses’ Attitudes Toward Childbirth Practices

What are maternity nurses’ attitudes toward childbirth practices? Research has shown that childbirth processes with high levels of interventions have negative outcomes; however, little information is available about registered nurses’ attitudes toward this. Understanding nurses’ attitudes toward birth practices may give insight into why high rates of birth interventions exist in low-risk situations, as nurses provide more labor support than any other maternity care professional.

Guided by the social identity theory, this cross-sectional, descriptive study was conducted by surveying 20 labor and delivery registered nurses in a northern New Jersey community hospital. Findings revealed that the RNs have a positive attitude toward episiotomy; negative attitudes toward vaginal birth, cesarean birth, and vaginal birth negatively affecting pelvic floor function; and neutral attitudes toward doulas and continuous electronic fetal monitoring.
Although respondents believed that childbirth doesn’t usually require medical intervention, high rates of interventions persist in low-risk situations.

Rajiv Kashyap, Marketing and Management Science, Sudha Mani, Professional Sales, Sam Basu, Economics, Finance and Global Business, and Peter Caiazzo, Global Financial Services Institute

An Investigation of the Effects of Voluntary Disclosures of Sri Activities on Financial Performance and Implications for Regulatory Policy

Despite vast and extensive research on the benefits of voluntary disclosures, investors find it difficult and often confusing to identify ‘sustainable’ firms due to substantive differences in ratings criteria employed by various SRI advisors. We designed a study to investigate the following research questions: What is the value of voluntary financial disclosures to investors and firms? How do voluntary financial disclosures affect financial performance? We developed and test an interdisciplinary theoretical framework that seeks to explain why firms choose to voluntarily disclose information about their ESG activities, how such voluntary disclosures affect market participants, and what impacts voluntary disclosures have on financial performance. Employing a uniquely constructed dataset, we find that ESG disclosures are significantly correlated with two markers of market risk, beta, and the cost of equity. Further, the market appears to amplify the effects of positive ESG disclosures upon risk. This novel finding provides fresh directions for future research and significantly different implications for practice and policy.

This research was supported by the Cotsakos College of Business Summer Research Program.

Kimberly Keppler, Honors College, Communication (Broadcast Journalism)

Social Media and Public Relations

Kimberly Keppler has composed an honors thesis centered around public relations and social media. It is in-depth research about the effects social media has on public relations. The thesis includes case studies, in-depth explanations of public relations, and hypothetical social media plans for companies.

Julia Kolak, Honors College, Philosophy

On Double Dissociation and the Confound of Social Construction in the Nosology and Neurophysiological Correlates of Psychopathology

Over time, the biological, psychological, and social dimensions of psychopathology have often come into conflict, though sometimes advocated in harmony by the “biopsychosocial” model. However, with the paradigm shift towards pharmacological treatment of the mentally ill, psychiatric medicine has radically heightened the need for candid discussion on the various commitments and consequences of the nosology, diagnosis, and treatment of the “mentally ill,” on both normative and meta-analytic grounds. This is because biological models are reductionistic in nature, meaning they purport to track the underlying causal mechanisms of nature. One of the initial problems with this sort of view when applied to the human condition, is that naturalized descriptions of the mind that rely on these causal mechanisms
must always be veridical. Clearly, human behavior is not always determined, and between (and even within) individuals, the ability to predict the connection between biology and higher order processes may be entirely opaque. When it comes to abnormal behavior, or “psychopathology” in particular, the slippery slope of this explanatory model warrants the intervention of both critical meta-analysis and nuanced philosophical reflection. Seeking more universal standards of investigation, epistemological arguments centered around the concept of double dissociation and competing explanations will be applied to the biological (and by extension, pharmacological) context of mental health. Ontological concerns will also be raised, in pursuing clarity on what constitutes—if anything—the affects labeled as “mentally ill.” Ethically, the aforementioned questions put to the psychiatric community is of great weight, especially when evaluating clinical applications of prescription privileges against the concerns of patient autonomy, free will, and the efficacious treatment of those seeking recourse from emotional and psychological affliction.

Brianna Kowalsky, Honors College, Psychology

*Therapeutic Benefits of Yoga Across Physiological And Psychological Domains*

Yoga is an ancient practice that promotes both physical and psychological well-being. Given its increasing popularity and promising results, it is no surprise that yoga has made its way into the Western World. To its practitioners, it may seem obvious that yoga has various benefits; they claim it is the secret to their longevity. Therefore, empirical research to support these beliefs is necessary. As of late, researchers in the fields of medicine and psychology have been trying to lay a scientific framework beneath the practice of yoga. The purpose of this review is to bridge the gap between journals of medicine, occupational therapy, alternative medicine and psychology, in order to facilitate the communication of yoga research across these fields as well as identify areas that warrant future research.

Barbara Krasner, Master’s Degree Student, History

Faculty Sponsor: Prof. Dewar MacLeod, History

*Dance Marathons of the 1920s and 1930s*

Since the movie "They Shoot Horses, Don’t They" hit the screens in 1969, perceptions of Depression-era dance marathons branded them as the harshest of Darwinian contests. While this is true, marathons originated as record-breaking competitions for fame-seeking Jazz Age moderns and then transformed during the Depression to full-scale spectator events that blended the best and worst of vaudeville, circuses, and amusement park sideshows. This poster session presents a view of the shift in America’s entertainment values and practices as evidenced through these unique events that created an industry. It also demonstrates how that industry faced challenges from local and state authorities and suffered from the lack of standards and regulations. Underlying the research is a unique database of more than five hundred dance marathons and walkathons from 1921 to 1938 created by the presenter.
Corey Lacoppola, Honors College, Business Management

Factors Associated with Mentorship Practices

One way to practice towards perfection is to follow the lead of somebody who has ‘been there and done that.’ Mentorship programs can be extraordinarily beneficial for the mentee. These programs are set in place to improve the working habits of the mentee so he or she can move on and become successful in life after college. This study will research the factors involved in mentorship practices associated with the learning experience of the mentee from the mentee’s perspective. It will discuss the most relevant challenges to mentorship program experiences. Relationship factors will be examined to find out if certain factors help the mentee achieve a better learning outcome. About 60 students from William Paterson University’s Mentorship Program participated in this qualitative study. A mentor provides you with wisdom, technical knowledge, assistance, support, empathy and respect throughout, and often beyond, your graduate career (Khosla, 2013).

Abbi Lamparelli, Honors College, Nursing

Preoccupied with Plastic? Body Appreciation & Likelihood to Undergo Plastic Surgery in Teenage Girls

The purpose of this study was to examine if Body Appreciation correlates with the desire to undergo future plastic surgery in the female teenage population. Latest research proves that rates of plastic surgery are increasing in all age groups, and females in the 13-19 age group are particularly vulnerable. Using the Body Appreciation, Celebrity Opinion and Plastic Surgery survey tool, 59 18-year old females were sampled at one New Jersey high school. The design was a quantitative, correlational, and cross-sectional study with qualitative components examining celebrity worship. Findings included a correlation of 0.096, indicating that there was not a significant correlation; however, other interesting results were revealed about celebrity idolization. The results of this study serve to enlighten healthcare professionals to the importance of caring for young adult females making life-altering decisions with sensitivity, knowledge, and effectiveness.

Danielle Landayan, Honors College, Nursing

Antibiotic Knowledge in University Students

Antibiotic resistance is a pandemic that threatens the efficacy of treatments, resource availability, and health outcomes. According to the World Health Organization, the world is heading towards a ‘post-antibiotic era’ where common infections transition from treatable to lethal. This study examined the level of knowledge on antibiotic use in William Paterson University students who sought healthcare from the Health and Wellness Center. The study assessed if a relationship existed between demographic characteristics and scores on the Repeat Antibiotic Prescription Questionnaire. The nonintervention quantitative design provided baseline data on the dichotomous-variable ‘patient perception,’ which included knowledge on antibiotic-use and client-physician relationship, as a predictor of health outcomes. Of the 95 students sampled, results indicated a knowledge deficit in more than half of the population. Results will help to raise awareness about primary prevention’s role against antibiotic resistance through education in the client-physician relationship.
Nicole Leal, Honors College, Nursing

Social Support and Help-Seeking Behaviors in Adolescents with Depression

Despite the fact that depression is the most common mental health problem in the United States, many adolescents who suffer from it still do not seek the appropriate help they may need. Previous research indicates that there is still little known about what interventions increase help-seeking behaviors. The aim of this study was to further examine the correlation between social support and help-seeking behaviors in adolescents between the ages of 12-18 years old suffering from depression. This quantitative study utilized the Social Provisions Scale (SPS) and Actual Help Seeking Questionnaire (AHSQ) as instruments to examine the relationship between the two aforementioned variables. The final sample was n=33 and the results included Pearson’s correlation value of r=.408 with a p value of .025 indicating that the null hypothesis can be rejected. These findings indicate that there was a moderate positive correlation between social support and help-seeking behaviors in adolescents with depression.

Jeung Woon Lee, Biology

Reversal of hyperglycemia in streptozotocin-injected C57/6J displaying diabetic mellitus type 1: a long-term examination of efficacy of islet cell transplantation

Previously, our lab developed techniques to harvest and transplant pancreatic islet cells into the kidney of diabetic type-1 mice to reverse hyperglycemia. In our CfR 2014, we reported that transplantation of islet cells harvested from healthy donors under the kidney of streptozotocin-injected (STZ) diabetic C57/6J mice reverses their hyperglycemia. Our data showed that over 73% of transplanted mice showed return of blood glucose level to near pre-diabetic level (from >600mg/dl to ~200mg/dl). This effect was persistent even at 21 days post-transplantation. On the other hand, all control diabetic mice that received vehicle transplantation maintained hyperglycemia (>600mg/dl) where 50% died from the condition by 2wk post-STZ induction. At 21days post-transplantation, the blood glucose levels of islet-group and control were 342±58 mg/dl and 600±00 mg/dl, respectively.

Therefore for our CfR 2015, we repeated the islet transplantation surgeries and observed changes in blood glucose levels for 100 days (3.5 months) post-transplantation to determine the long term effect of islet transplantation surgery. As previously noted, the transplanted animals showed decreased blood glucose level from 405 mg/dl to 92.6 mg/dl within 90min post-transplantation. This effect lasted until day 21 where the blood glucose was 155.9 mg/dl. However, we observed rise in blood glucose level to ~400mg/dl from days 26 to 80 post-transplantation at which point many of the animals died of hyperglycemia. Interestingly, one animal that received islet transplantation maintained its blood glucose level to 169 mg/dl until day 100 of experiment. In the control group, the average glucose level was high throughout the experiment period (>600 mg/dl) and all of them died or had to be euthanized by day 21 post-transplantation.
Our data from CfR 2015 showed that many diabetic animals that received islet cell transplantation were able to control hyperglycemia until about 28 days post transplantation. However, their blood glucose level returned to hyperglycemic level for the rest of experiment period suggesting islet cell transplantation alone may not help their diabetic condition. It is interesting to note that one of islet transplanted diabetic animal maintained normal blood glucose level until the end of experiment (day 100 post-transplantation) indicating the overall scheme of islet transplantation is possible to reverse diabetic hyperglycemia, albeit with other combinational therapies.

This research was supported by the College of Science and Health Center for Research and the Student Research and Creative Expression Program

Michelle LeGrand, Honors College, Psychology

An Art Program Focusing on Individual vs Group-Oriented Approaches for Low Socioeconomic Status Children

The purpose of this study was to introduce art as a unique team-building tool to children who live in low socioeconomic status communities. Art is another form of expression and communication; therefore, the researcher was interested in utilizing art’s unique properties to help children strengthen interpersonal and interdependent skills. Children from a community center, ranging from fourth – sixth grade, were randomly assigned to either an individual or group-oriented art class. It was hypothesized that the group-oriented art class would develop stronger team-building and interpersonal skills, in comparison to the individual art class. An art program that has an emphasis on working together in a fun and engaging environment may help children gain confidence, reduce stress, improve relaxation, enhance mood, and strengthen self-esteem. Introducing group work to an early age may help children achieve future success in higher education, careers, and perhaps in their own personal lives.

Kevin Lenihan, Honors College, Business Management

Millennials and the Use of Social E-Commerce

This paper seeks to further knowledge gained by recent studies regarding the phenomenon of social e-commerce in the modern day online shopping experience. So far a significant aspect of the concept of Electronic Word of Mouth (e-WOM) has been established to describe the social discourse in online shopping activities. This study expands the current knowledge of the effects of e-WOM on the millennial generation, another factor of modern consumerism that is studied. This study presents college age students with a survey designed to determine several established points of impact in their online shopping experience, and whether Millennials with strong indications in these factors also share strong interaction with e-WOM factors. Relationships between these various factors will be analyzed in order to better understand millennial online consumer behavior, and will use 5-point scales and multiple-choice answers to determine the various points of interest.
Pierre Leon, Master’s Degree Student, Diana Russo and Veronica Mejia, Undergraduate Students, and Amy E. Learmonth, Psychology

*Finding Mr. Smiley: which cues are too hard?*

Research on the utilization of spatial information in navigation shows that successful navigation can be accomplished in a number of different ways. Researchers have found that human and non-human species use landmarks and geometric features in order to reorient and cognitively map their environment (Lourenco, Huttenlocher, & Vasilyeva, 2005). Nardini et al. (2015) found that children could locate hidden toys using their recollection from previous trials. The present study is a computer-based task in which participants are asked to find a hidden smiley face on the screen using different cues available on two types of trials. On half of the trials there was a landmark that indicated the target location and on the other half the geometric properties of the figure could be used to find the smiley face. Subsequent to choosing an answer, feedback was given by indicating a correct answer with a big smiley face and an incorrect answer with a frowning face. After completing 40 trials, twenty of each type, participants experienced four test trials in which the two pieces of information they had been using were both available and pointed the participant to conflicting locations which provided a measure of which piece of information was preferred. As anticipated, results with adult participants showed a preference for landmarks, though a trend towards more geometric responses were apparent as the landmark trial conditions grew difficult.

This research was supported by an Assigned Released Time for Research (ART) award

Brielle Liebman, Honors College, Popular Music Studies

*Observations of a Western*

"I am discussing the relationship between Western foreigners and local Indian residents through a trope based off of the novel “Eat, Pray, Love” by Elizabeth Gilbert. The words “eat,” “pray,” and “love,” represent the Western consumption, spiritual appropriation, and admiration of countries like India. Western women—especially take part in this trope, hoping to “find themselves” in India. In my research, I use “Eat, Pray, Love” as a significant recurring theme that informs my observation of Western women and Indian men, and how these two entities react with each other. This trope, in my experience, informs men and their performance of masculinity and sexuality among Western women, and it informs a Western woman’s desires to visit India. Through my observation, the men, are shown participating and resisting this “Eat, Pray, Love” of the Western women, both during my time in India and upon my arrival back home through social media."

Andrew Lucila, Franklin Roque and Micheal Morgan, Undergraduate Students, Psychology, and Benjamin Ciccarelli, Music

 Faculty Sponsor: Prof. Michael S. Gordon, Psychology

*Auditory Feedback for Sight-Reading Musicians Influences Gaze*

Visual attention and manual coordination were tested with pianists sight-reading baroque music. Sight-reading music is an attention taxing task that has received little previous study.
In this research, the musicians were tested with synchronous, delayed, and prelayed auditory feedback during their performance.

Pianists were analyzed using the error rates in their performance and with the use gaze-tracking software. The results were consistent with previous research and show the difficulty of musicians integrating asynchronous auditory feedback.

This research was supported by a Research & Travel Incentive Award

Jaclyn Mako, Honors College, Psychology

Child Sexual Abuse Prevention: What Works and What Needs Work?

This research pertains to the child sexual abuse prevention programs that are currently in place. By conducting a literature review on the effectiveness of specific programs, such as Stop It Now in Vermont and Darkness to Light, this study evaluates which programs seem to provide the best results in order to protect children nationwide from this horror. An issue encountered is that many researchers do not do a follow up test on children who have utilized these programs to test if the information was retained. The strengths and weaknesses of each program are evaluated, along with its effectiveness. Changes to certain programs, in regards to their weaknesses, will be proposed in order to strengthen a child’s chance at safety.

Timothy Malone, Honors College, Music Studies

What Mozart is in the Mozart Effect

The Mozart Effect is based upon the theory that exposure to classical music during pregnancy and early childhood leads to an increase in scholastic aptitude. The prominence of the Mozart Effect in today’s society influences the perception of classical music. A survey was administered to students, faculty, and others in order to capture how people today perceive classical music. The results showed that classical music has been generalized into one large genre of music and not an era of music history. Most people today, particularly students, only listen to classical music, especially the music of Mozart, when they are either studying or trying to relax. Mozart, being a child prodigy, has influenced societies perception that listening to classical music will have an effect on scholastic aptitude and concentration.

Nicole Manzetti, Undergraduate Student, Psychology

Faculty Sponsor: Prof. Natalie Obrecht, Psychology

Dispositional Empathy, Altruistic Helping Behaviors, and Social Networking Site Usage

Dispositional empathy is the ability to understand and share the feelings of others (Konrath, O'Brien, & Hsing, 2010). Previous research has found a relationship between empathy and altruistic helping behaviors (e.g. Oswald, 2003), but a decrease in dispositional empathy from 2000 to 2009 (Konrath et al., 2010), perhaps due to the rise of social media usage in everyday life. The current study examined the relationships between dispositional empathy, altruistic helping behaviors, and the intensity of social networking site usage. People who were more empathic tended to score higher on altruism and social networking site intensity measures.
Also, greater social networking site intensity was associated with higher altruism. Finally, I found a small but significant increase in the Perspective-Taking subscale of empathy between Konrath et al.’s 2009 and my 2015 sample, suggesting that empathy has not decreased in recent years.

Mohammad Marey, Honors College, History

Lost Paradise; Tolerance & Intolerance in Islamic Spain, 750-1200

Islamic Spain is fondly remembered by an Arab poet as “a lost paradise”. It is also hailed as a time when the three Abrahamic faiths lived together in a semblance of harmony. Yet it too had its own tensions between the at times rival, at times cooperative faiths and communities. Calling Al-Andalus a paradise begs the question of whose “paradise” was it? To answer that question we must look at political and cultural trends within Al-Andalus to understand how the various groups interacted. The way the people of Al-Andalus interacted created the fabled tolerance of Al-Andalus and its vibrant culture.

Marcello Maritato, Undergraduate Student, Computer Science

Faculty Sponsor: Prof. Dr. Bogong Su, Computer Science

Automatic Refrigerator Failure Warning

Many times restaurant or food business owners open up in the morning to find their refrigerator has failed on them and all of their food has been spoiled costing hundreds if not thousands of dollars. Using an Arduino open hardware Yun chip, a temperature sensor, and a Temboo account (a cloud based code generation platform) we can put together a system in which that business owner can be notified by email when the temperature in their refrigerator drops below a certain point. This would give them the chance to respond and save their food from spoilage. The temperature sensor voltage changes with any temperature change. The voltage is calculated to the equivalent Celsius degree. The information is processed by the Arduino chip which in turn communicates through the Wi-fi shield to Temboo which will make it possible to send the email to the user.

Kellie Markert, Undergraduate Public Health Student, and Naa-Solo Tettey, Public Health

Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

Using Self-Efficacy Theory to Assess Strategies Implemented by Facebook Pages Aimed at Helping Black Women Lose Weight

African American women are more likely to be overweight or obese and suffer from the various health issues related to these conditions. Social Network Sites (SNS) have proven to be effective forums for delivering innovative programs that help African American women lose weight, increase physical activity, improve their diet, and engage in other positive health behaviors. Specifically, in recent years various Facebook based initiatives such as Black Girls Run, Black Women Losing Weight, Black Women “Do” Workout, and Black Girl’s Guide to Weight Loss have become effective platforms for health promotion. The purpose of this study is to assess these Facebook groups using self-efficacy theory to determine shared themes and
strategies that have resulted in success. People with high self-efficacy are more likely to make positive lifestyle changes related to health. However, there is a lack of research regarding methods for increasing self-efficacy in African American women who use Internet based groups to improve their health. The current study used observational research techniques underpinned by self-efficacy theory to investigate how the constructs of this theory (mastery experience, vicarious learning, verbal persuasion, and somatic and emotional states), were incorporated on these Facebook pages to create positive outcomes for participants. The Facebook pages were selected based on having more than 100,000 likes and also focusing primarily on helping African American women lose weight. This poster will discuss major themes that emerged and the implications of these findings in reducing health disparities in this population.

Brenda Marshall and Nhat Nguyen, Nursing

fMRI evaluation of emotional regulation through contextual manipulation

The core of psychotherapy is to develop a therapeutic relationship with a client, facilitating the client’s increased ability to gain insight and recover on the continuum of mental health. Despite establishing a client-centered trusting relationship, stimuli in the form of a visual or verbal nature can activate an amygdala response. The unexpected, not clearly understood response from the client can create a barrier between client and therapist, often undermining the therapeutic alliance. Objectives: To identify the changing neural connectivity created when fearful context is superimposed on surprised facial expressions. Method: This project used the summer months of 2015 to recruit and complete ten fMRI scans on healthy volunteers. This first step provided an opportunity to track neural connectivity, evaluating the emotional regulation in healthy adults when exposed to static surprised faces with altering happy and scary stories. Results: Data from the 10 scans are presently being analyzed.

This research was supported by the College of Science and Health Center for Research, Field Family Foundation, and The Institute for Nursing (IFN) of New Jersey

Amairany Martinez, Kathy Roberts and Emily Zagnit, Undergraduate Students, and Corey Basch, Faculty, Public Health

Marketing strategies on packaging used in infant and children over-the-counter medicine

Retail sales of over the counter (OTC) medications have risen steadily over the years. Parents and children alike may be drawn to the appeal of the packaging of certain medications, as they often feature pictures of foods and contain flavorings of commonly eaten foods. Such appealing characteristics may have negative ramifications for overconsumption.

Websites from the three largest U.S. based chain pharmacies were searched to garner the sample of infants and children’s OTC medicines, specifically fever reducer, allergy relief, or cough relief. Analysis involved using the picture of the packaging posted on the pharmacy website as well as noting if there was an ingredients tab and warnings listed along with this
product. Data were collected on information from the product packaging posted to the pharmacy website.

There were 183 products reviewed, of which 32.2% were fever reducer products, 25.1% were allergy, and 42.6% were cough medicines. The majority of these OTC (87.4%) are in liquid form and the rest (12.6%) tablets. Less than a third (29.5%) of the products state that they are dye free on the label. Almost every product (95.6%) state that it resembles a food flavoring, with the majority (80.8%) being a fruit flavor (e.g., grape, berry, cherry, etc.) and others as follows: a bubblegum flavor (10.4%), chocolate (2.2%) or honey (2.2%). The flavor is highlighted on every package in different font sizes, with only 26.8% having a small font size. Most of the products (83.1%) list either a picture of fruit (72.1%), bubblegum (9.3%), or honey (1.6%) on their packaging. There were significant differences (p < .001) between the medicine types by pictures, with fever and cough medicines having more pictures of food than allergy medicine.

The packaging of OTC suggests, with pictures of food and font size advertising, that these medicines are food-like with regard to taste. This is concerning given potentially over-consumption and safety of these products. Stronger regulations of marketing strategies allowed to be used with these products are needed.

Caitlin McCaul and Jacqueline Zanosky, Master's Degree Students, Communication Disorders
Faculty Sponsor: Prof. Dr. Vishweshwara Bhat, Communication Disorders

A comparison of younger versus older children in relation to their ability to comprehend figurative language, specifically idioms.

The participants included two groups of typically developing school aged children aged 7-8 (n=19) and 11-12 (n=19) enrolled in public schools in Northern Jersey area. Ten common transparent and ten common opaque idioms were used. Half of the idioms presented were presented within context, whereas the other half were presented without context. When given the idiom in context, the students were read a short paragraph and then prompted to provide a verbal explanation of the idiomatic expression. Subsequently, the participants were given a forced multiple choice task to measure their overall receptive understanding of the idiom. When presented with an idiom out of context, the researcher read the child the idiom and then followed the same expressive and receptive task outlined above. The findings indicate that both groups of participants demonstrated greater understanding of transparent idioms compared to opaque idioms, with the older children demonstrating increased comprehension over the younger group. Also, the results demonstrate that both groups of children performed better when providing a forced choice answer over the expressive verbal explanation of the idiom. These findings support previous research which states that idiom comprehension is interpreted more literally by younger children and becomes more figurative during the school-aged and adolescent years. Lastly, the results indicate that context enhances idiom comprehension in children. Clinically, this provides details on how typically developing children comprehend and explain idioms and what strategies, such as providing a forced choice or context, may benefit children with deficits in figurative language.
WPU FACULTY RESOURCES

I. Support for Teaching

• Center for Teaching Excellence (CTE)
• David & Lorraine Cheng Library
• First and Second Year Faculty Reassigned Time
• Writing Across the Curriculum (WAC)
• Information Technology
• Instruction and Research Technology (IRT)
• Center for Teaching and Learning with Technology (CTLT)
• Media Services
• Broadcast Production and Support Services (BPS)

II. Support for Research and Creative Expression

• Assigned Release Time for Research (ART)
• Research and Travel Incentive Program (RTI)
• Student Research & Creative Expression Program (SRCEP)
• Office of Sponsored Programs

III. Academic Development

• Academic Development Programs
• Academic Success Center
• First Year Foundations Program
• Gloria S. Williams Advisement Center
• Academic Progress/Early Alert Program
• New Student Experience/First-Year Seminar
• Sophomore and Junior Experience
• Office of Testing
• Transfer Student Experience

IV. Support for Student Learning

• Career Development Center
• The Counseling, Health and Wellness Center
• Office of Disability Services
• Science Enrichment Center
• The Writing Center

See Faculty Resource Guide for details,
http://cms.wpunj.edu/faculty-and-staff/teaching_research_grants.dot
Kristen Megargee, Honors College, Communication Disorders

“Qui est Charlie?” or “Who is Charlie?”

“Je suis Charlie” is the social-emotional movement that transpired immediately following the terrorist attack on the radical French journal, Charlie Hebdo, on January 7th, 2015. The movement provided a common ground for Paris, France, and other countries worldwide to grieve, support, and stand behind the journal by boldly stating “I am Charlie.” Despite the unity among millions of individuals, conflicting opinions arose regarding the journal’s Freedom of Expression, centered around repercussions of Charlie Hebdo’s graphic cartoons and offensive slogans. This is evidenced through various editorials, interviews, and surveys conducted within the Francophone community. The thesis aims to explore and interpret these views with strong consideration of both the origin of the phrase “Je suis Charlie” and its significance, as well as alternative interpretations of the phrase. Additionally, it will address the role of social media both throughout and after the attack.

Anthony Menafro, Undergraduate Student, Public Health
Faculty Sponsor: Prof. Corey H. Basch, Public Health

Safety Information Regarding Electronic Cigarettes From Shopkeepers in New York City

Objective: The purpose of this study was to survey the shopkeepers of stores that sell e-cigarettes in all 5 boroughs of New York City regarding the safety of e-cigarettes.

Methods: Businesses selling e-cigarettes were located using these three search engines. After the logging of each business, phone number, and location in the spreadsheet, phone calls were made in order to assess each businesses’ perception of e-cigarettes including their perceived safety, perceived long term harm, and perceived health of e-cigarettes.

Results: Of 152 located e-cigarette shops, a total of 109 (71.7%) were successfully contacted. The majority of shops perceived e-cigarettes as safe (70.6%), and healthier (79.8%) than traditional cigarettes. Shops were more cautious in regard to long-term harm of e-cigarettes, as more than half of them reported not being sure or not knowing about the long-term harm (53.2%). A statistically significant association was observed between perceived safety, perceived health and perceived lack of long-term harm effect of e-cigarettes (all p<0.001).

Conclusion: The findings from this study indicate that shopkeepers may influence the sale of e-cigarette use by downplaying potential dangers. Given the limited research on e-cigarettes, additional surveillance of e-cigarettes shops is needed.

This research was supported by Public Health Department’s Research Assistantship Fund.
Understanding (Student) Debt

Around 70% of all students in the USA graduate with an average debt of nearly $30,000. It is estimated that 41% of the class of 2005 is now delinquent in student loan repayments. Student debt is frequently described in dire terms (“a ticking bomb”) and has become one of the central issues of the election season. In this presentation, we intend to examine the issue of student indebtedness in the context of decades of neoliberal policy-making and the turn to financialization in the US economy. Drawing upon the insights of world system theory, we argue that student debt can best be understood not in isolation but as part and parcel of the current systemic cycle of accumulation. By offering a historically grounded reading of student debt, we seek to examine the linkages between indebtedness, social relations, productive forces, and the common good.

This research was supported by the Cotsakos College of Business Summer Research Program.

Ashley Mondragon, Honors College, Psychology

The Prevalence and Cognitive Effects of Depressed Mood and Anxiety in College Students

College students experience high rates of depression and anxiety. As demanding as college is the addition of mental health issues can make the process of education even more challenging. This is mainly due to the fact that depression and anxiety may interfere with cognitive functions that are necessary for academic performance.

The current study examined two things: 1) The prevalence of depressed mood and anxiety in healthy college aged students. 2) The relationship between depressed mood, anxiety and select cognitive domains. Depressed mood was measured by using the Beck Depression Inventory (BDI) and anxiety was measured by the State-Trait Anxiety Inventory (STAI). Cognitive functioning was measured by paper pencil and computer tasks that looked at working memory, processing speed, executive functioning and verbal processing. Preliminary findings suggest that individuals with higher BDI and STAI scores have lower processing speed, working memory, and executive functioning.

Noreen Moore and Michelle Gonzalez, Educational Leadership and Professional Studies

Supporting Graduate Student Writers with VoiceThread

The purpose of our presentation is twofold. First, we will share the ways we use VoiceThread to provide audio-visual feedback to graduate students on their writing. We will also share how we use VoiceThread to facilitate virtual writing groups among graduate students. In the second part of our presentation, we will share preliminary data on the influences of VoiceThread audio-visual feedback on graduate students’ writing and writing processes. We will also share data on graduate students’ perceptions of the use of VoiceThread to provide feedback and to facilitate virtual writing groups.
The Effect of High Light Intensities on Toxin Biosynthesis in the Florida Red Tide Dinoflagellate, Karenia brevis

Karenia brevis is the Florida red tide alga that causes negative environmental and human health impacts through the production of potent neurotoxins, the brevetoxins. To gain insight into molecular mechanisms involved in toxicity, we are currently studying the physiological and molecular differences between non-toxic (NT-KB) and toxic sub-strains (KB) of the K. brevis Wilson isolate. Based on previous data that suggests a link between chloroplast metabolism and toxicity, we are examining the effects of high light intensity (HL), twice the normal light intensity, on growth, toxicity, and gene expression of both sub-strains. Early experiments examining growth, toxicity, and gene expression under 24-hour light revealed that NT-KB is more sensitive to light stress than the toxic sub-strain, and proteins involved in toxicity increase in abundance in HL treatment compared to controls in both sub-strains. To mimic a more natural light cycle, we are currently examining the same endpoints on a 16:8 light:dark cycle. Contrary to the 24-hour light studies, there were no observed differences in growth in either sub-strain after exposure to HL. However, photosynthetic efficiency of NT-KB decreased two days post HL treatment compared to NT-KB controls while there were no differences in GB photosynthetic efficiency between treatments until stationary phase of growth. These data support the findings in the 24-hour light data that NT-KB is more sensitive to light stress suggesting an important role of brevetoxin in coping with this stress. Toxin and gene expression analyses will provide additional insight into the effect of light stress on K. brevis and shed light on the underlying molecular mechanisms involved in toxicity of this harmful algal bloom species.

This research was supported by the College of Science and Health Center for Research, the Garden State – Louise Stokes Alliance for Minority Participation in the Sciences (National Science Foundation through Rutgers – The State University), College of Science and Health Dean’s Office, Assigned Release Time for Research, and ASBMB

Michael Morgan, Undergraduate Student, Psychology
Faculty Sponsor: Prof. Michael S. Gordon, Psychology

Hearing What is Coming: Musical Direction of a Visual Search

In film, music has often been used to produce an emotional context that allows the audience to anticipate coming events. While this affective priming is somewhat general, it may be that music can also direct more specific visual attention to locations and objects. The current research investigated the latter possibility by presenting a series of visual scenes that were primed using musical stimuli. The music was created with directional contours in pitch; dynamic rhythms; and harmonic relationships.

Participants experienced the first two seconds of the musical stimulus before a visual scene appeared during the final second of the auditory presentation. The visual scene consisted of a distribution of shapes in a spatially unpredictable pattern. Participants were asked to identify a
particular object within the visual scene as quickly and accurately as possible. In addition to testing reaction time, visual gaze was tracked to determine how participants searched the scene - and whether the search was influenced by the musical shape.

Results indicate the potential for musical stimuli to influence specific changes in visual attention in a search task. These findings may indicate how film composers and directors have been using music to help guide audiences through a cinematic experience.

This research was supported by a Research & Travel Incentive Award

**Joshua Morovan, Honors College, Jazz Studies Performance**

*Music as Visual/Literary Devices*

Joshua Morovan has composed music set to his original story to demonstrate the subtle ways in which these two mediums can interact. The project was supervised by Dr. Philip Cioffari of the English Department.

**Samantha Morris, Honors College, Biology**

*Positivity and Pain: Positive Affect Journaling and Pain Symptoms*

Many people suffer from some sort of chronic pain disorder. Current research on mood and pain involves mood and pain manipulation in the lab setting, and has found that pain ratings are lower when a positive mood is induced compared to when a negative mood is induced. Instead of manipulating mood in a short lab setting, it would be more applicable to chronic pain patients to find a way to induce a positive mood over a longer period of time in order to see if their pain ratings will be affected. It has been found that when people journal three positive events a day three times a week, their positive affect increases after four weeks. The goal of this study is to link mood, pain, and positive affect to see if positive affect journaling over a four week period decreases pain ratings for those with chronic pain.

**Cara Mutia, Honors College, Nursing**

*Efficacy of Virtual Reality Exposure Therapy on Combat-Related Post Traumatic Stress Disorder: A Systematic Review*

Healthcare and military research technology have teamed up to address post-traumatic stress disorder (PTSD) with virtual reality exposure therapy (VRET), an electronically-induced simulation of any traumatic event guided by a trained clinician in a safe environment. This systematic review examined the current literature on the effectiveness of using VRET to treat veterans with PTSD. A search of the literature was performed using CINAHL, PubMed, and ScienceDirect. Eligibility criteria included studies having been conducted in the United States and the subjects be U.S. Armed Forces veterans diagnosable for PTSD by DSM-IV. The 10 selected studies were randomized controlled trials, quasiexperimental and case studies. The analysis showed the use of VRET in the treatment of combat-related PTSD in veterans significantly reduced symptoms. Measures of comorbid conditions depression and anxiety
were also improved. Because VRET is a new innovation, more robust research should be done in the area of PTSD in veterans to establish protocol and efficacy.

Jessica Napolitano, Master's Degree Student, Amanda Blazkiewicz, Undergraduate Student, and Amy Learnmonth, Psychology

*Can videos speak the language of Autism? Preliminary analyses*

Typically developing children suffer from a "video deficit" in which imitation is learned more successfully through live demonstrations rather than through video demonstrations\(^1,2\). Children with autism have difficulty imitating all together\(^4,5\). As a result, teaching this population of young children social skills, many of which are learned through imitation and joint attention proves to be a challenge\(^3\). Video modeling removes many of the stimuli that seem to be difficult for children with autism, such as eye contact, background noise, and social interaction. A possible explanation for this pattern is that children with autism, characteristically are fascinated with movie lines, thus, watching a video might hold their attention more than a live model. The current study was designed to test the hypothesis that children with autism will imitate better from a video demonstration than from a live model while typically developing children will imitate more effectively from a live model. The participants are exposed to either a 2D or 3D puzzle via a live demonstration or a video demonstration. Participants ability imitate the demonstration on a 3D magnet board or 2D touchscreen is then assessed. Although data collection is ongoing, preliminary analyses indicate that while typically developing children demonstrate superior imitation skills overall, children with autism will show increased ability to imitate a video over a live demonstration.


This research was supported by a grant from the New Jersey Autism Center of Excellence (NJACE) Clinical Research
Leslie Nobler

Reinventing Rescued or Looted Artifacts: Relief Mixed Media and Fiber Surfaces Via Alternative Digital Printmaking

An exploration of my historically-based artwork for the last decade includes a look at both the artifacts and the tragic circumstances that surround them, and exciting experimental digital art and printmaking techniques. Ranging from Judaica oddly “preserved” or looted by the Nazis to centuries-old lovingly-tended ecclesiastic lace relics, ritual-inspired stories rife with mysticism and the work of the human hand are the fodder for my recent work. I give an overview of new digital-mixed media technique(s), explain the influential art/artisanal sources and the outcomes of some of the finished projects. Hybridizing is central to the discussion about this body of work resulting from the traditional-digital hybrid physically (in form) to the mining of the internet and live experiences, and historic along with the most contemporary, to create a hybrid/collage of images (content).

Ana K. Ocampo, Undergraduate Student, Computer Science
Faculty Sponsor: Prof. Cyril S. Ku, Computer Science

The WPU YRBS (Youth Risk Behavior Survey) Data Mart

The WPU YRBS (Youth Risk Behavior Survey) Data Mart is a multi-user and parallel access platform in a client-server environment for behavioral research in the Department of Public Health and for data analytic and data mining research in the Department of Computer Science at William Paterson University. This presentation outlines our effort in data extraction, data transformation, and data loading processes from the YRBSS (Youth Risk Behavior Surveillance System) at CDC (Centers for Disease Control and Prevention). The architecture of our data mart as well as the future plan of data mining activities will be presented.

This research was supported by An Assigned Released Time for Research (ART) award and the College of Science and Health’s Student Worker Fund

Kadeem E. O’Gilvie and Derrick Dorph, Undergraduate Students, Kendall Martin, Biology

Combining autoclaving before extraction and very high sensitivity PCR to detect the causative agent in white-nose syndrome in environmental samples, without risk of spread.

_Pseudogymnoascus destructans_ (P. destructans) is a species of fungi that is responsible for severe declines in bat populations across the Northeastern United States. The purpose of this research is to detect _P. destructans_ in samples containing DNA collected from Hibernia Bat Cave (Hibernia, NJ). Reliable methods of detection without risk of spreading the fungi would be invaluable to understanding the process of the bat populations shifting back to homeostasis. We are attempting to ensure the safety of the protocol by autoclaving the samples before extracting and purifying the DNA. We have shown with a close relative, _P. pannorum_, which we can recover useful DNA after destroying vegetative hyphae and spores in the autoclaving step. Environmental samples did not provide sufficient template for _P. destructans_ specific amplification with a single-round PCR. Attempts at identifying _P. destructans_ with greater sensitivity then shifted to the use of nested-PCR protocols combining Dr. Martin’s fungal-universal NSA3/NLC3 and NS11/NLB4 primers with primers specific to _P. destructans_. We are
using the final target primer sites Pd-ITS1-qPCR Pd and 58A2R, which anneal to sites within the fungal universals PCR products. Using the sensitivity from upwards of 60 cycles of amplification, we hope to discern the presence of \emph{P. destructans} within the previously collected samples. To date, 2 bands were detected in an electrophoresis gel, one of which potentially represents \emph{P. destructans}.

**Soo-Kwang Oh, Communication**

*Where “stars” are born: An exploratory study of Afreeca TV’s live-stream self broadcast model*

This study examined the newly emerging and increasingly popular social media platform and online personal broadcasting service, "Afreeca TV." The website features a live stream self-broadcasting model accompanied by a live chat window. This study employed a qualitative content analysis of most popular shows on "Afreeca TV" to identify the elements that make its model successful in today’s digital media landscape. The researchers discuss following key elements that help understand Afreeca’s success: 1) real-time audience participation/influence on broadcasts; 2) sociality offered through companionship and virtual community; 3) virtual celebrity arising from the platform’s unique fan culture; 4) convenient expression of satisfaction through the unique star balloon feature; 5) diversified content and show structure fulfilling the changing needs of audiences; and 6) a livecast management system ensuring the quality of content and interactions. Findings imply that audiences are applying social media characteristics such as instant interaction/input and crossing in and out of private/public spheres toward online broadcasting platforms. This study contributes to both research and practice by highlighting how audience behavior on social broadcasting platforms are changing. The findings shed light on new research topics on social media users and successful features for new social media platforms to consider in this rapidly changing social media landscape.

This research was supported by the College of Arts and Communication Center for Creative Activity and Research Summer

**Matthew Orso, Honors College, Communication**

*Eric Chamberlain and the Cooperstown Caper*

Matthew Orso, under the great direction of Dr. Cioffari, has written a children’s book entitled "Eric Chamberlain and the Cooperstown Caper." It chronicles the adventures of Eric Chamberlain, an avid baseball fan, who has to prove his grandfather’s innocence after he is accused of a crime he did not commit.

**Jennifer Owlett, Communication**

*Understanding Reintegration Stress, Turbulence, and Satisfaction: At-Home Partners’ Perspectives.*

Reintegration can be a stressful transition for many military couples (Sayers, 2011). Previous findings suggest that partners can experience issues that range from increased conflict, to problems reintegrating the service member into daily life and routines (Knobloch & Theiss,
One person that is particularly impacted during reintegration is the at-home relational partner (Allen, Rhoades, Stanley, & Markman, 2011). As such, additional attention is needed for understanding how this individual experiences reintegration stress (Rossetto, 2015). One way in which to better understand this transition is through the relational turbulence model (Solomon & Knobloch, 2004). This study responds to this need by advancing a model in which relational turbulence (i.e., relational uncertainty and partner interference) is posited to mediate the relationship between reintegration stress and relational satisfaction. One hundred and seventy-nine at-home romantic partners (female, n = 114; male, n = 65) participated in this study by completing an online survey. Five hypotheses and one research question were used to examine relationships among the variables in the model. Mediation analyses were completed using PROCESS (see Hayes, 2013). Results suggest positive associations between stress and relational turbulence, and inverse relationships between relational turbulence and satisfaction. Interestingly, relationship uncertainty and partner interference completely mediate the impact of stress on relational satisfaction. These results support and extend previous work (e.g., Knobloch & Theiss, 2011) that uses the relational turbulence model to examine reintegration. Results are discussed with specific attention to both theoretical and practical implications for at-home partners.

This research was supported by an Assigned Released Time for Research (ART) award.

Mateusz Pala, Honors College, Communication (Media Production)

Will Do

Matt Pala has written and directed a short comedic film about a probate attorney whose client’s last will was written when he was a teenager. The project was supervised by Dr. Philip Cioffari of the English Department.

Sin Yeong Park, Honors College, English

Anthology of Short Stories

Erica Park has completed an anthology of short stories including pieces of fiction and creative non-fiction. The project was supervised by Dr. Philip Cioffari of the English Department.

Michael Parmese, Honors College, Business Management

Millennial Engagement in Charitable Causes

Charities play a large role in the betterment of peoples lives, be it people with illness and disease, homeless individuals, or giving resources to locations in need after natural disasters. Many millennials are starting to reach adulthood and are eager to contribute to charitable causes that benefit society and improve the lives of others.

This research seeks to investigate the relationship between the intent of millennial charitable engagement and ethnicity, appeals and trends of gender participation, the impact of societal expectations on each gender’s participation intentions, and differences in participation intention between millennials who donate regularly compared to their peers who do not. The
findings of this research can be used to better cater to specific demographic segments in order to increase charitable engagement, be it financial or through a donation of time. This can include the creation of better marketing materials to target specific genders and ethnicities, as well as a more comprehensive understanding of how to attract new participants and further engage existing participants in charitable causes.

Renee Pendergast, Honors College, Interpersonal Communication

Fantasy Helps Children with Moral Development

Fantasy books and stories help children with moral development. Identifying with protagonists while following a journey through right and wrong until good eventually conquers evil is a large part of maturing. Without even knowing it, children who listen to and read these fantastical stories are learning – absorbing information through characters that they look up to because of the wondrous feats they accomplish. There is a right and a wrong in these books, a good and evil, the wonderful conqueror and the hated conquered. However, the journeys to get there, as in life, are not always as clear-cut, and we must try to read between the lines to begin understanding the deeper meanings in these books. Although the theme of good conquers evil is still the case, the ways these characters get to that outcome is extremely varied, and there comes a lot of grey area with immense room for discussion.

Olivia Pinto, Jennifer Haggis and Diana Russo, Undergraduate Students, Psychology, and Torri Jaime, Master’s Degree Student, Communication Disorders and Sciences

Faculty Sponsor: Prof. Amy E. Learmonth, Psychology

How does the lion roar? Four-year-olds remember elements but not associations regardless of memory load.

Binding is an associative memory process that is essential in forming complex episodic and autobiographical memories. Binding allows various types of stimuli to be encoded and stored independently and bound together upon recall. Binding is believed to improve during early childhood (Lloyd, Doydum, & Newcombe, 2009; Sluzenski, Newcombe, & Kovacs, 2006; Rajan, 2016). In the current study, we examined binding of visual and auditory information in four year olds to examine if children this age could accurately recall elements (just a recall task) and bind together (a more difficult task that required recall of combinations) the presented stimuli. In both experiments, participants observed a 15 to 20 minute slide show of animal pictures and related species-specific sounds. Participants were presented with pairs of animals of the same species, each making distinct species-specific sounds. The first experiment contained a higher memory load because participants were tested on their ability to remember all twenty-four pairs at once. In the second experiment, participants were tested after viewing each half of the presentation. The results of both experiments revealed that children at the age of four struggled to recall the elements presented in the slide show in both the full length and shortened tasks, and were unable to successfully bind animal-sound pairs together.
A Mixed Method Study of the Adoption of Online Academic Support by STEM Students in Higher Education

A mixed method study was used to assess the impact of online academic support through videoconferencing on the academic outcomes of students in high-risk science courses in higher education, and to identify what factors influence student adoption of this innovation. An embedded approach was used in which qualitative data were embedded within a quasi-experimental design. There were 1,276 students from 3 groups of students receiving online, face-to-face, or no academic support included in this study. Chi-square tests for homogeneity were used to test if there was an association between the outcome measures and the groups. Both results revealed significant differences in rate of retention and final grades of “Cs or above” among the 3 groups and that the “not tutored” group had the lowest rate. A Fisher’s exact test was employed as a post-hoc test to check homogeneity between online and face-to-face groups. Findings revealed that there was no significant difference in proportions for retention or final grade, providing evidence that online academic support through videoconferencing is as effective as face-to-face academic support. Influences that motivated student adoption of the program were deductively identified using Rogers’ (2003) and Wejner’s (2002) frameworks and inductively derived from participant responses. Findings revealed a complex interaction of variables related to environment, innovation, and innovator that influenced students’ adoption of this innovation. Implications of these findings and recommendations for further research and implementation of an online academic support program will be provided.

This research was supported by the College of Science and Health and the Science Enrichment Center

Kara Rabbitt, College of Humanities and Social Sciences

Dialogues of Identity

The College of Humanities and Social Sciences hosts its annual forum of recent scholarship and creative work by senior faculty. Joanne Miyang Cho (History) will discuss key findings from her recent edited work on Gendered Encounters between Germany and Asia: Transnational Perspectives since 1800 (2016). Kathleen Korgen (Sociology) will share an overview of her recent edited book Race Policy and Multiracial Americans (2016). Charlotte Nekola (English) will read some selections from her recent poetry collection, Della Who (2016).

Sirai Ramirez, Undergraduate Student, Biology

Faculty Sponsor: Prof. Jaishri Menon, Biology

Cross talk between cellular organelles during tail regression in tadpoles Xenopus leavis

During metamorphosis, the anuran body changes to adapt from aquatic to terrestrial habitat. Larval specific organ/tissue such as tail, degenerates by several different mechanisms like reactive oxygen species (ROS). Presently we carried out in situ staining for ROS and mitochondria, peroxisomes, calcium as well as mitochondrial permeability transition pore...
assay (MPTP) to finely accentuate their individual roles during the different stages of metamorphosis in tadpoles. During early stages of metamorphosis, there is increased production of ROS in tail just before the regression begins.

Tail epidermis shows increase peroxisomal density as metamorphosis progressed. Progressive condensation of nuclei from the tip of the tail towards the body also corresponds with a reverse gradient for peroxisome localization. Ventral fin shows signs of cell death before the dorsal fin as wedges of cell death overlapped with ROS localization and peroxisomal staining. We conclude that ROS responsible for cell death in regressing tail, is partly derived from peroxisomes and seem to be ubiquitous organelles playing a key role in both production and scavenging of ROS during. In situ staining for calcium and MPTP assay show an increased expression of these parameters as metamorphosis progressed. Ca2+ signaling has long been known to be critically involved in both the initiation and effectuation of cell death. Oxidative stress accompanied by calcium overload leads to permeability pores of mitochondria to open as tail regression begins. Mitochondrial dysfunction is probably a consequence of calcium overload. Interrelationship between cellular organelles and mechanisms involved in tail regression are discussed.

This research was supported by the Garden State – Louise Stokes Alliance for Minority Participation in the Sciences project funded by the National Science Foundation through a subaward from Rutgers – The State University

Marisa Rapisardi, Honors College, Nursing

Yoga Practice & Perceived Stress among High School & College-age Students

Stress is a major health risk among adolescents and young adults and can contribute to multiple health problems. Yoga is one form of stress management that can decrease anxiety and improve perceived stress levels. The purpose of this study was to examine the relationship between yoga practice and perceived stress among high school and college students. The study was a case control study design surveying two groups of students, those who practice yoga and those who do not practice yoga. The Perceived Stress Scale was used to score 162 participants, with the results showing a Pearson Correlation of -0.198. Despite the lack of statistical significance, the results of the study can be used to encourage yoga as a stress management technique to be taught to the adolescent and young adult population.

Daniel Raycraft, Honors College, Jazz Studies Performance

Frank Strozier: An analysis of his compositions and improvisations

Frank Strozier is a very important and severely underappreciated alto saxophonist from Memphis, Tennessee. He grew up with and went to high school with many other masterful musicians, including Harold Mabern, Booker Little, and George Coleman. He was the only horn player that the great John Coltrane would invite to the bandstand to play compositions such as Giant Steps and Countdown, before the record "Giant Steps" was released. This work will attempt to explore the mastery of Frank's compositions and improvisations.
Xanilyn Red, Honors College, Nursing

*Level of Burnout and Personal Values in the Nursing Profession*

Burnout jeopardizes nurse’s personal well-being and may compromise patient care delivered. The Mediation Model of Burnout identified that incongruence between an employee’s values and the employer’s was the strongest indicator for burnout. The Value Theory is composed of ten motivational distinct values that were recognized across cultures, with benevolence, universalism, and self-direction ranked as most important. In this quantitative, correlational study value prioritization was measured in RNs (n=66) and SNs (n=62) using the PVQ40. Level of burnout in RNs was measured by the OLBI, and the relationship between RNs prioritized values and burnout experienced was studied. It was hypothesized that nurses who ranked benevolence, universalism and self-direction would experience lower levels of burnout; however the correlation between all values and burnout levels were inconclusive. Burnout continues to be a problem, therefore addressing a need for future study and proper intervention, whether it’d be at a professional, educational, or recruitment level.

Kelly L. Roe, Undergraduate Student, Psychology

Faculty Sponsor: Prof. Dr. So-Yon Rim, Psychology

*Social Media Behaviors*

Social networking is an increasingly prominent aspect of the human experience, a limitless mode by which we interact with the social world, and empirical research on this topic has been growing in psychology (e.g., Zhao et al., 2008; Ivcevic & Ambady, 2013; Mohammad & Kiritchenko, 2014). The goal of the present research is to examine the social norms associated with social media sites (SMS's) and to examine the effects of norm-violation, specifically as it pertains to photo-sharing behavior, on how the user is perceived. SMS profiles serve as a virtual self-representation through which individuals connect with one another and, as in face-to-face communication, such person-to-person interactions occur within a social context. Just as social scripts govern everyday interpersonal behaviors offline, we propose that social scripts unique to each SMS effectively direct user interaction within the platform. The context of a particular SMS determines normative behavior for users and adherence to those norms shapes user perception by others. In this research, Facebook and Instagram are the specific platforms used to investigate SMS photo-sharing norms and the relationship between norm adherence/violation and person perception. As a first step, the purpose of Study 1 is to identify whether platform-specific norms exist and, if so, obtain a baseline of explicit picture sharing norms within each platform. Data collection is ongoing.

Gabriela Salvador, Honors College, Communication (Print Journalism)

*Examining Changes in French Women’s Fashion during the Late 18th and Early 19th Centuries*

No period of fashion history is as enigmatic as the exaggerations of eighteenth century French court fashion. The excesses associated with Marie Antoinette—luscious silk brocades, stiffly boned undergarments, towering hairstyles adorned with miniature ships—typify the period, and have remained symbolic of l’ancien regime. Yet, the years following the French Revolution present starkly different fashions; highly-structured gowns gave way to columnar, diaphanous
white cotton dresses which evoked the simple tunics of ancient Greco-Roman civilization. Pre-Revolution fashion symbolized the rigidity, formality, and excess of the monarchy, while post-Revolution fashion emphasized classical Greco-Roman ideals of natural beauty and simplicity. The French nobility’s desire to distance themselves from the fallen monarchy, the invention of the cotton gin, and enlightenment philosophies valuing reason and equality were responsible for the great changes in fashion during and after the French Revolution. To illustrate how the theoretical changes of fashion appear in reality, ensembles representing c. 1770 and c. 1800 styles will be constructed.

Jenna Schreck, Honors College, Mathematics

The Role of Assistive Technology in Mathematics Classrooms

In mathematics classrooms there is a noticeable lack of use of assistive technology. This lack of use of assistive technology in mathematics classrooms is the result of poor teacher and faculty preparedness, limited knowledge of assistive technology and its benefits, as well as a difficult and complex funding process. This paper explores solutions to this problem so that students with and without disabilities can reap the benefits of using assistive technology in mathematics classrooms. Various assistive technology devices such as iPads, interactive whiteboards, and computer programs can be used to improve student learning in mathematics. Mathematics classrooms may come equipped with these devices; however, typically teachers are not using these devices effectively or to their full potential. The goal of this paper is to promote awareness of the benefits of assistive technology and to show how assistive technology devices can be effectively incorporated into mathematics lessons.

Rachael Segal, Honors College, Legal Studies, Political Science, English

Asperger’s and This College Experience

Rachael Segal has completed a 62 page manuscript telling the story of a young woman with Asperger’s Syndrome going through the first semester of college, experiencing the ups and downs of collegiate life, and learning how to deal with a new environment. The project's intent is to raise awareness about this invisible disability and to help readers understand different perspectives.

Michal Shapir, Honors College, Communication

The Story of Us

The Story of Us” is a film about friendship, and what it means to love someone unconditionally. Life can pose many challenges on individuals, and some of those challenges can strain our relationships. There are those rare friendships, the once in a lifetime — if you’re lucky — friendships, that never waiver no matter what life throws at you. Love and companionship is something we all need in order to live happy and fulfilling lives, but not all relationships we experience are truly pure. “The Story of Us” was inspired by the most honest, open, and loving friendship I’ve had the pleasure of knowing.
Bethan Shipway, Honors College, Psychology

Board Game based Intervention for Domestic Violence

Recent research into the prosocial applications of games has lead to the development of game-based interventions. For this study a board game based education tool on the topic of domestic violence was developed and evaluated. The board game was tested against a control presentation to determine whether the game-based platform had a significant effect on learning and information retention. Level of retention was tested immediately after intervention and two weeks post. Currently, data are being processed. If significantly higher levels of information retention are found within the board game group, it would provide support for the use of game-based interventions as educational tools.

Melissa Silvestri, Honors College, Communication, Elementary & Middle School Education, English

Now I’m Found

Melissa Silvestri has completed a 40 page manuscript telling the story of a young girl, Norrie, who showcases the difficulties of being an orphan during the Great Depression and the impact of orphan trains. There are 5 pages of photos included with the manuscript for the readers to better connect with the story.

Daniel David Simon, Jr., Honors College, Mathematics

Give God The Glory

Daniel "DJ" Simon has written a 6 song EP expresses his prayers and how his relationship with God has changed his life through his years at college. This project was supervised by Dr. Cioffari of the English Department.

Joseph Snider, Honors College, History

Populist Revolution: Aggressive Radical Populists & Why they Succeed

It is a popular subject to examine what causes revolution, but what makes them succeed? What makes the difference between a fizzled out rebellion and a revolution that overthrows the government? In this paper, I examine three factors; economic destitution, people under arms, and propaganda. I argue that these factors are the largest factors in determining the success of a revolutionary faction in taking over and securing its position in the government. I examine these factors over a number of revolutions to give examples of their importance and examples of what goes wrong when all three are not present.
Daniel Spadaro, Honors College, Popular Music Studies

More Than A Song

In the last ten years, music has brought some amazing people into my life. These people come from all different backgrounds, and every one of their lives are unique stories of their own. From being a signed recording artist myself to being a contestant on The Voice, I have learned that many people who are talented singers and performers have trouble incorporating their own stories, experiences, and struggles into their original music, for a variety of reasons. I decided I want to help them tell these stories. For my project, I interviewed five musical artists of various genres. I asked them about the most defining moments in their life, and I wrote a song about each of them and their story — in their genre of music. Some of the songs are written from their point of view, and others were simply inspired by what they told me. I have written, recorded, produced, and recorded the five songs myself. The goal of this project was to convey the power of story-telling through songwriting, and particularly, how it is transferable across all genres of the “pop music” realm. I am hoping to become involved with a collaborative songwriting and production team after college. As a step towards this goal, I am constantly working to better my skills as a versatile music creator.

Joseph Spagna, Biology

Secondary Structure, Homology, and Sequence Alignment in Spiders

The phylogeny of arachnids is much less well-understood and generally-settled than that of other major arthropod groups, such as insects. One reason may be that arachnids, particularly spiders, diversified before insects did, making the search for useful phylogenetic signal in their DNA more difficult, since DNA homologies can be erased by multiple substitutions the over the passage of time. Thus the most-conserved, slowest-evolving genes are the best candidates for reconstruction of spider phylogeny. In arthropods, these are the ribosomal RNA genes. However, these genes differ in length and have both structural and functional elements. The RNA transcripts ‘fold’ into self-assembling structures, and that structure can be used to solve the problem of homologizing these genes across broadly divergent taxa. I produced secondary models for the 18S and 28S ribosomal RNA genes, and used this to align and remove unalignable portions from the data. Trees produced from matrices of these structurally-modeled genes show different, and in some cases, improved resolution of the important basal divergences in spider evolution, demonstrating that careful consideration of slow-evolving genes may improve phylogenetic analysis of ancient evolutionary events.

This research was supported by the College of Science and Health Center for Research and the WPU Sabbatical Leave Program.
Stephanie Spies, Honors College, Accounting

Financial Literacy Examined through Debt Management of Two-Year and Four-Year College Students

Young adults (ages 20-24) are filing for bankruptcy at an all-time high. Contributing factors include student loan debt, credit card debt, and a lack of financial literacy. The goal of this research was to determine if there is a difference between the financial literacy of two-year and four-year college students. Students have been surveyed at two-year and four-year colleges to examine the differences between their level of financial literacy. Financial literacy is measured through debt management, particularly credit card debt and student loan debt. The measurement used consists of survey questions from other financial literacy studies to promote validity. The four-part survey analyzes students’ perception of debt, credit card usage and debt, student loan debt, and demographic information. Key demographics of the sample such as year in school and gender are also examined. It is anticipated that significant differences will be found among various groups of students.

Kristina Sternesky, Honors College, Communication (Public Relations)

A Collection of Short Stories

This collection of short stories follows a subtle form of connectivity. Each piece can stand on its own as each represent a different world. The protagonists are all faced with a logical, immediate threat that aims to upset the balance of the protagonists’ lives. The project was supervised by Dr. Philip Cioffari.

Anna Stienstra, Honors College, Marketing

Emotional intelligence and its Impact on Student Leadership

University students have many opportunities to join clubs, teams, and organizations on their campuses. Within these organizations, members have the chance to assume specific roles that showcase their leadership skills; such as President, Vice President, and Treasurer. Certain leadership positions appeal to some more than others. Members often desire to be in different leadership positions; however, some members have no desire to be in a leadership position but would rather partake in the club or organization with no particular role. A key factor that has been identified to effect leadership is emotional intelligence. Emotional intelligence plays a key role in every individual’s personality. This research is intended to examine how an individual’s emotional intelligence effects his/her desire to be in a leadership position. Emotional intelligence and leadership have previously been proven to be related; however, this study will focus on students and their likelihood to choose leadership positions based upon their emotional intelligence levels.

Evangelia Stavridis, Honors College, Music Education

Aural Painting

Music is a way to aurally paint an image in the minds of an audience. Just like a painter uses different colors and techniques to create a physical image, a composer uses different
instruments and musical techniques to create a sound/mental image. For this project, I used a variety of instrument combinations and styles to depict each of the members of my family. The instrument choices and combinations were decided based on how I perceive each of their personalities. My process differed slightly from one piece to the next but included playing different chords/rhythmic patterns on piano and saxophone, reviewing the music theory aspects while going along with the pieces, and looking at the visual presentation from a musician’s point of view.

Sage Stuart, Undergraduate Student, Communication
Faculty Sponsor: Prof. Jennifer Owlett

Professional Patient-Doctor Relationship

Communication in the doctor-patient relationship has been studied before. However, the difference in the doctor-patient relationship between professional and average patients has not. This study will focus on the satisfaction between professional and average patients in the doctor-patient relationship. In this case, the professional patient will be defined as someone who sees a doctor more than five times per year. The average patient will be defined as someone who sees a doctor less than five times per year. The results showed that from this convenience sample, there was actually little difference between professional and average patients. This was surprising but it’s possible that results would differ if conducted with a larger sample. This study will attempt to shed light on a relatively unknown topic, with the goal of better understanding the differences between professional and average patients, and enhancing the professional patient-doctor relationship from that understanding.

Bogong Su and Erh-Wen Hu, Computer Science

Instruction Level Loop De-optimization - Loop Rerolling and Software De-pipelining

Instruction level loop optimization has been widely used in modern compilers. Decompilation - the reverse of compilation - has also generated much interest for its applications in porting legacy software written in assembly language to new architectures, re-optimizing assembly code, and more recently, in detecting and analyzing malware. However, little work has been reported on loop decompilation at instruction level. In this paper, we report our work on loop de-optimization at instruction level. We demonstrate our approach with a practical working example and carried out experiments on TIC6x, a digital signal processor with a compiler supporting instruction level parallelism. The algorithms developed in this paper should help interested readers gain insight especially in the difficult tasks of loop rerolling and software de-pipelining, the necessary steps to decompile loops at instruction level.

This research was supported by an Assigned Released Time for Research (ART) award

Jitwipar Suwangbutra and Michael S. Gordon, Psychology

Role of skull resonance in sound-source localization

Head-related transfer functions (HRTFs) provide important information on how a sound source is spectrally colored by the reflective and diffractive properties of the head, outer ear,
and torso by the time it reaches the tympanic membrane. Consequently, HRFT measurements are a key component in localization studies for synthesizing virtual acoustic stimuli in three-dimensional space. Despite potential relevance to auditory localization, the possible influence of the skull has yet to be investigated. The current study investigates the possibility that differences between skull resonances might influence sound-source localization on a lateral plane.

Unique spectral information was extracted from skull resonance recordings of listeners (ages 19 - 40 years) from a previous study and was used to create narrowband chirps. In each trial, listeners were presented with pairs of narrowband chirps and were asked to determine the lateral input direction (left, front, right) of the sound source. Results indicate that differences were found between listeners’ ability to accurately localize as a function of individual skull resonance.

Monica Szczech, Honors College, Nursing

The Effects of Social Media on Self-Esteem in College-aged Individuals

Social media use is becoming more prevalent especially among adolescents and young adults. The social identity theory states that a major factor of an individual’s self-concept and social identity relies on group interactions. Therefore, it is important to study the effect that social media has on self-esteem in order to promote optimal mental health and well-being. This research project studied correlations between intensity of social media use and self-esteem using the Rosenberg Self-Esteem Scale and the Intensity of Social Networking Usage Measure tool. Data was collected using anonymous surveys (N= 356) distributed on campus and was subsequently analyzed using SPSS. Tests were run at the 0.05 level of significance, and an insignificant correlation was found at 0.070 which indicated a weak but positive correlation (p=.190) between intensity of social media usage and self-esteem. This finding was too weak to be considered statically significant which indicates a need for further studies.

Alexander Trenta, Honors College, Communication (Media Production)

Deconstruction and reconstruction of the American Sit-Com

For my Independent Honors Project, I conceptualized and created an original ensemble sitcom pilot screenplay. However, before I could put pen to paper, I had to deconstruct and understand the pieces that make up a sitcom. My focus was on ensemble multi-cam and single-cam sitcoms. With research in screenplay writing, reading numerous pilots of sitcoms, and rigorous deconstruction of sitcom series, I have learned what it takes to create a sitcom. My project is part screenplay and part “formula” for a sitcom.

Billy Tsang, Ashley Bujalski, Alana Summers, and Joshua Cohen, Doctoral Students, Psychology

Faculty Sponsor: Prof. Bruce Diamond, Psychology

Mood and Anxiety Disturbances Among Female and Male College Students

Anxiety and mood disturbances can impact college students’ cognitive, social, and academic functioning. This study involving 313 college-aged students explores the prevalence of anxiety and depression, relationships between these variables, and gender differences. Analyses show
prevalence rates of 30.4% for depressed mood and 36.3% for elevated anxiety. Anxiety has a significant positive correlation with depressed mood ($r = 0.462$, “p” < .001), and while this relationship was found among females ($r= 0.531$, “p” < 0.01), it was not observed in males.

This research was supported by the Psychology Department

**Thomas Uhlein, Art**

*Typeface design: The Marvelous and the Melancholy.*

My presentation will consist of sharing my academic adventures (including exceptional accomplishments, and monumental failures), in creating two original typefaces during my fall 2015 sabbatical. The conceptual development of my typeface designs was based, in part, on historical trends in art and culture from cities in the mid-Atlantic region, and on west coast of the United States. Research for the designs included analyzing documentation from the early Renaissance, the American Revolution, ephemera of the industrial age, and social and political design from the early 1960s. Both typefaces I created (a serif and sans serif), include 26 uppercase and lowercase letters, numerals, punctuation, and various alternative characters (or glyphs). While a clear plan was put in place for the design and distribution of my fonts, the evolution and the outcome of type specimens was somewhat unexpected - both marvelous, and melancholy.

This research was supported by a Sabbatical Award

**Amanda Uhlick, Honors College, Nursing**

*Barriers to Smoking Cessation in Patient Care: Understanding the Attitudes & Behaviors of Registered Nurses*

This research examined the smoking habits and personal attitudes of registered nurses as it relates to smoking as a parameter of care. Nurses may promote awareness of tobacco-use health risk factors and the resources available to support smoking cessation. However, nurses who smoke may experience feelings such as hypocrisy when caring for clients who exhibit tobacco dependency.

This study aimed to investigate whether a relationship exists between the smoking status and attitudes of registered nurses and the likelihood to address tobacco use in patient care. Data for this descriptive, correlational research study was obtained through administration of the survey replicated from Vitzthum et al. to 76 registered nurses working in Northern New Jersey hospitals. Overall, nurses with a history of tobacco-use reported feeling more comfortable addressing smoking cessation, addressed smoking cessation the most often, and experienced feelings of guilt most often when addressing smoking cessation in the patient care setting.
Explorations in Language and Linguistics

As human beings, we all speak (or sign) and understand at least one language. But how do we do it? How and why do languages vary across speakers, regions, and history, and at the same time exhibit surprising uniformity? How and why do new languages develop? How does knowing two or three languages differ from knowing one language? These are vexing questions. The human brain holds the answers, but remains a "black box". So we seek answers indirectly. We study how children and adults acquire first and second languages. We compare sound systems, word-formation systems, lexicons, and grammatical systems of closely-related and distant languages, and even of speakers and signers of the same language. We study the language of people with certain types of brain injuries. We track on-line processing of language. We evaluate the use of language in different social and cultural contexts and examine the associated societal attitudes.

The students enrolled in Understanding Human Language (LANG 1120) are seeking answers to many of these big questions; however, they are starting small, having carved out research projects that require reflection and insight, and that have produced impressive results.

Building a Grammar of a Natural Language

Within the field of linguistics, one task of syntacticians (linguists who study grammar) is to devise a system of rules that can generate grammatical sentences and exclude ungrammatical ones. For example, why is the dependent reflexive anaphor "herself" possible in (1) and (3) but not in (2)?

(1) Barbara saw "herself" in the mirror.
(2) "Herself" saw Barbara in the mirror. (* = ungrammatical)
(3) Barbara saw pictures of "herself" on Facebook.

A first hypothesis would be that "herself" must be preceded by its antecedent, Barbara. The hypothesis can explain (1)-(3) but not (4), where only Maria can be the antecedent of "herself."

(4) (*)Barbara thinks that Maria saw "herself" on Facebook.

So precedence alone cannot explain the facts, and the hypothesis must be revised.
The students enrolled in Structure of Language (LANG 3050) are working on these and other puzzles in syntax. But they are tackling the issues in a novel way, by building their own grammars. Using the public-domain software Syntactica, students are developing syntactic rules, and testing their predictive power. The goal is to build a mini-grammar that can generate only the possible sentences of English, not the impossible ones. The progress of the work will be displayed in poster format.

Angelica Urbina, Honors College, Psychology

Personality and Demographic Profiles of Firefighters and Police Officers

Some individuals seek novelty and intense experiences and might be characterized as high sensation seekers (HSS) while others are less likely to engage such behaviors. Do individuals in higher risk professions (e.g., police and fire fighters) endorse higher sensation seeking behaviors to a greater extent? Are they generally more or less anxious than people in other professions? The purpose of this study was to determine whether or not these individuals differ in high sensation seeking behaviors and trait anxiety. Preliminary findings suggest that while police work and fire fighting would generally be viewed as higher risk professions, and while individual higher sensation seeking statements and activities were endorsed in greater numbers by police and fire fighters, overall, the mean responses did not differ from controls. However, police and firefighters did exhibit higher levels of trait anxiety than controls. Implications for recruiting and supporting these professionals will be discussed.

Mariana Vasiljevic and Roshanna Jacobs, Undergraduate Public Health Students, and Naa-Solo Tettey, Public Health

Faculty Sponsor: Prof. Naa-Solo Tettey, Public Health

My Mind is Playing Tricks on Me: A Content Analysis of Expressions of PTSD Symptoms in Hip Hop Lyrics

Post-traumatic Stress Disorder (PTSD) is often associated with military combat. However, PTSD can occur after traumatic events that create feelings of helplessness and hopelessness, particularly in unpredictable circumstances. An emerging area of research explores how living in an inner-city neighborhood can lead to experiencing symptoms of PTSD. Many of these communities that have been ravaged by gun violence are often referred to as “war zones.” Hip-hop music has been described as an oral history of life in the inner city and reflects the daily struggles many residents face. In the current study, a content analysis of hip hop lyrics was conducted to uncover descriptions related to symptoms of PTSD. Songs were chosen based on rankings of the top five artists in hip hop from sources such as Billboard and Complex magazine. Two independent coders analyzed the selected songs for content related to PTSD. The aim of this study is to bring attention to PTSD in a population that is often overlooked. Understanding how PTSD is experienced in this group can contribute to the creation of effectively tailored interventions.
Kristen Victorino, Communication Disorders & Sciences

Profiles of behavior and executive function in children with specific language impairment

There is a great deal of evidence that children with Specific Language Impairment (SLI) exhibit cognitive, motor, and academic difficulties outside of language. Not only is there a high co-morbidity of SLI and psychiatric disorders such as ADHD, but many children with SLI experience sub-clinical levels of impairment in attention and executive function. The current study aims to identify particular areas of behavioral impairment by analyzing parent responses to two standardized measures: the Conners Comprehensive Behavior Rating Scale (CBRS) and the Behavior Rating Inventory of Executive Function (BRIEF). Profiles are compared to a sample of age-matched children with typical language development. Clinical and educational implications will be discussed.

This research was supported by the College of Science and Health Center for Research.

Miryam Z. Wahrman, Biology, Corey H. Basch, Public Health, Jay Shah, Biology, Zerlina MacDonald and Myladys Marte, Public Health

Glove Usage by New York City mobile food vendors: Observational and Microbiological Analysis

The purpose of this study was to determine the rate of glove changing by mobile food vendors after monetary transactions, and the presence of bacterial contamination on a sample of dollar bills obtained from 25 food vendors near five hospitals in Manhattan, New York City. During 495 monetary transactions observed there were only seven glove changes performed by the workers (1.4%).

One third of food workers (11 of 34) wore no gloves at all while handling money and food. Nineteen of 25 one-dollar bills collected (76%) had 400 to 42,000 total bacterial colony-forming units. Colonies were of varied morphology and size. Of these 19 samples, 13 were selected (based on level of growth), and tested for the presence of coliform bacteria, which was found in 10 of the 13 samples. Effective strategies to monitor and increase glove wearing and changing habits of mobile food vendors are needed to reduce risk of foodborne illness.

This research was supported by an Assigned Released Time for Research (ART) award, the College of Science and Health’s Student Research Fund, and the Student Research and Creative Expression Program.

Brittany Warther, Honors College, Education K-12/TSD

Navigating Life in Your 20’s

Brittany Warther has completed a collection of twenty-two poems that depict the many struggles and triumphs that most adults in their 20s endure. The poems tell the fictional stories of several adults through their journeys to navigate this significant period in their lives. The project was supervised and aided by Dr. Philip Cioffari of the English Department.
Dana Weaver, Honors College, Biology (Physiology & Behavior)

Phylogenetic Relationships in Oligophelbodes (richopterce: Thremmatidae) as an Assessment of DNA Barcodes

Oligophelbodes (Trichoptera: Thremmatidae) is a genus of caddisflies endemic to Western North America. Using DNA barcode data (Cytochrome oxidase 1), I analyzed a sample of 58 individuals representing about five species and tested them for monophyly in the species-level taxa. Of these samples, 44 were already sequenced and the data have been provided to me via private and public databases; the remaining 14 were extracted, amplified, sequenced and added to the preliminary dataset for phylogenetic and biogeographic analysis. The tree verifies species’ IDs of the 14 new specimens and shows the pattern of divergence of groups in Western North America. This work addresses the utility of DNA barcode data for phylogenetic study more generally.

Carolyn Woyce, Honors College, Nursing

The Effects of C-Sections on Infant and Maternal Health

In 2013 the United States rate for cesarean sections rose to 32.7%, exceeding the World Health Organization’s guidelines that countries not have a cesarean section rate greater than 15%. A systematic review of the literature was conducted to examine the relationship between cesarean sections and subsequent outcomes on infant health, and the implications that this has on United States healthcare. Using search terms ‘cesarean section’, ‘maternal health after cesarean section’, ‘infant health after cesarean section’, ‘infant bonding after CS’, and ‘incidence of postpartum depression after CS’ and the database CINAHL from years 1999-2015 the existing literature was examined. A total of 6 studies were examined and the relationship between the increase in cesarean sections and its effects on infant and mother health and well-being were reviewed. The outcomes of this study can be used to guide healthcare professionals into making choices that reflect the best outcomes for their clients.

Yalan Xing, Chemistry

Development of Alkyne Functionalization Methodology

The first row nontoxic and inexpensive transition metal Iron (III) was used to catalyze the formation of a,a-dihalodimethyl ketals from terminal alkynes in excellent yield and regioselectivity. It was discovered that alkynes can be selectively functionalized to a,a-dihaloketones or a-haloketones by employing different solvents and workup procedures. This efficient method provides a solution of the long standing challenges in selective mono-halogenation and di-halogenation reactions. The power of the diverse functionalization of alkynes is that it opens a door between alkyne chemistry and carbonyl chemistry, and these multicomponent, tandem approaches allow the efficient access to structurally interesting and bioactive agents. By studying the structure-activity relationship, the most potent small organic molecules with drug properties could be accessed rapidly.

This research was supported by the College of Science and Health Center for Research.
Use of Protective Gloves in Nail Salons in Manhattan, New York City

Nail salon owners in New York City (NYC) are required to provide their workers with gloves and it is their responsibility to maintain healthy, safe working spaces for their employees. The purpose of this study was to determine the frequency with which nail salon workers wear protective gloves. A Freedom of Information Law request was submitted to New York State Department of State Division of Licensing Services for a full list of nail salons in Manhattan, NYC. A sample population of 800 nail salons was identified and a simple random sample (without replacement) of 30% (n = 240) was selected using a random number generator. Researchers visited each nail salon from October to December of 2015, posing as a potential customer to determine if nail salon workers were wearing gloves. Among the 169 salons in which one or more workers was observed providing services, a total of 562 workers were observed. For 149 salons, in which one or more worker was observed providing services, none of the workers were wearing gloves. In contrast, in six of the salons observed, in which one or more workers was providing services, all of the workers (1 in 2 sites, 2 in 1 site, 3 in 2 sites and 4 in 1 site) were wearing gloves. Almost three-quarters of the total number of workers observed (n = 415, 73.8%) were not wearing gloves. The findings of this study indicate that, despite recent media attention and legislation, the majority of nail salon workers we observed were not wearing protective gloves when providing services.

Kristi Lee Young, Honors College, English (Writing)

Foolish: A Play in One Act

Kristi Lee Young has completed a 19 scene, one act play. The play is about being different and accepting yourself for who you are. The project was supervised by Dr. Philip Cioffari.
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