

# Program & Abstracts

## **Editor**

Jill K. Singer, Ph.D.  
Director, Office of Undergraduate Research

## **Sponsored by**

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## **Department and Program Coordinators for the Fourteenth Annual Student Research and Creativity Celebration**

Lisa Anselmi, Anthropology  
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Carol Beckley, Theater  
Lynn Boorady, Technology  
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Louis Colca, Social Work  
Carol DeNysschen, Dietetics and Nutrition  
John Draeger, Philosophy and Humanities  
Reva Fish, Social and Psychological Foundations of Education  
Kelly Frothingham, Geography and Planning  
Victoria Furby, Music  
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Gerri Hura, Adult Education  
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Michael Johnson, Modern and Classical Languages  
Jamie Kim, Chemistry  
Joelle Leclaire, Economics  
Bill Lin, Computer Information Systems

Dan MacIsaac, Physics  
Candace Masters, Art Education  
James Mayrose, Technology  
Amy McMillan, Biology  
Michaelene Meger, Exceptional Education  
Michael Niman, Communication  
Jill Norvilitis, Psychology  
Kathleen O'Brien, Hospitality and Tourism  
Barbara Olivieri, Health and Wellness  
Terry Postero, Interior Design  
Lisa Rafferty, Exceptional Education  
Peter Ramos, English  
Misty Rodeheaver, History and Social Studies Education  
Cory Rogge, Art Conservation  
Stephen Saracino, Design  
Lynne Scalia, Business  
Jim Shea, Technology  
Gary Solar, Earth Sciences and Science Education  
Elizabeth Szockyj, Criminal Justice  
Amitra Wall, Sociology  
Sandra Washington, McNair Scholars Program  
William Wiczorek, Center for Health and Social Research  
Jeffrey Zacko-Smith, Center for Studies in Creativity

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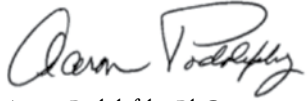
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It is my great pleasure to welcome you to the 2012 Student Research and Creativity Celebration at Buffalo State!

This event highlights the tremendous value Buffalo State places on research, scholarly, and creative opportunities for its undergraduates – and the tremendous value those opportunities add to the educations our students receive. On any given day at Buffalo State, students may be making discoveries that will help us preserve the health of the Great Lakes, collecting oral histories that shed new light on our community and our common past, or creating original works of art that help us see the world in exciting new ways. Along with the guidance of outstanding faculty mentors, these experiences give Buffalo State students exceptional tools for future success – and the confidence that they can, truly, do anything.

I am proud to be part of a campus community that places such an emphasis on undergraduate research and creativity – and I am excited to see their work on display once again.

Congratulations to all the students taking part in this year's Student Research and Creativity Celebration, and to the faculty who have mentored them!



Aaron Podolefsky, Ph.D.

*President*



The Student Research and Creativity Celebration is a hallmark event of each academic year at Buffalo State. For the past 14 years, we gather each spring to be astonished with the diverse and wonderful intellectual, artistic, and creative accomplishments of our undergraduate and graduate students. This annual celebration exemplifies how strongly Buffalo State embraces the academy's dedication to the rigors, joy, and fulfillment of intellectual discovery and how committed we are to engaging students in this quest.

Undergraduate research at Buffalo State is a shining example of our use of high-impact and deep learning practices in student's educational experiences. The design and delivery of such experiences requires thoughtful planning, supervision, and mentoring by faculty. The student is likewise obligated to dedicate attention and meaningful time to the experience. Outcomes are recognized to be of high value to participants and to the campus community. Increasingly, we find that Buffalo State student research efforts are receiving attention beyond the campus as both the state and national level.



With the 14<sup>th</sup> Student Research and Creativity Celebration, we recognize and applaud all who make this possible – students, faculty, Research Foundation, and all others involved with the event. Dr. Jill Singer continues to provide leadership to advance Buffalo State's programming and national prominence in undergraduate research. I express appreciation to Dr. Singer on behalf of the Buffalo State community.



Dennis Ponton, Ph.D.

*Provost*

Welcome to the 14<sup>th</sup> annual Student Research and Creativity Celebration!

Our *Celebration* draws undergraduate and graduate student presenters from all academic areas of the Buffalo State community and includes creative works conducted during the 'Year of the Arts'. This year's program is the largest *Celebration* to date with over 375 posters, oral papers, and visual and performing arts presentations. The growth in this campus-wide event is confirmation that Buffalo State places a high value on the teacher-scholar model of learning in which faculty engage students through research, scholarly and creative activities integrated directly into courses and independent research experiences.

The Student Research and Creativity Celebration calls attention to our students' discoveries as they explored their disciplines in search of answers to open-ended questions, and as a result of applying novel ways to create works of art. In their own way, each student has helped contribute new knowledge and gained a deeper understanding of the research and discovery process. Some of the activities presented this weekend are ongoing and results are preliminary. Other presenters already have shared their work at national and international professional meetings and conferences. But whether the work is in its earliest stages or near completion, our students are learning about the value and importance of communicating and sharing the knowledge gained or exhibiting a new work of art. And, every student presenter has benefitted from the commitment of a dedicated mentor (or mentors) that provided the right mix of encouragement, feedback, and guidance throughout each step of the research, scholarly, and creative process.



Undergraduate research continues to gain momentum on campuses across the country. Buffalo State is proud to contribute its voice in conversations about effective models for integrating undergraduate research into the curriculum and evaluating the impact of undergraduate research. This year a Buffalo State fine arts student was featured on the cover of the *Council on Undergraduate Research (CUR) Quarterly* and another Buffalo State student was invited to share their research at CUR-sponsored "Posters on the Hill" in Washington, DC. Three Buffalo State students took part in the SUNY Undergraduate Research Showcase in Albany and students in the arts, education, natural and social sciences, and computer science traveled internationally and nationally to present their research findings and display their works of art. In addition, undergraduates conducting research, scholarly, and creative projects are being offered assistantships in excellent graduate programs at universities across the country. Buffalo State student research, scholarly, and creative activities are on the move!

The Student Research and Creativity Celebration is the culmination of many months of planning and requires the support and assistance from individuals and offices across the Buffalo State campus. There are 46 *Celebration* Coordinators that help promote the event at the department and program levels, and a number of faculty that play an important role by serving as moderators for oral sessions and monitors in the poster sessions. Students also play an important role in running the event, from showcasing their scholarly and creative works during the opening reception to helping presenters register and find their way to the correct location for their presentation. I gratefully acknowledge all these individual efforts and enthusiasm shared by the campus for this annual celebration.

I hope you enjoy listening to and meeting the student presenters. I am certain you will be impressed by the diversity and quality of their presentations. Thank you for attending our Celebration of our students' achievements and supporting our student presenters and their faculty mentors.

Enjoy the program!

Sincerely,

A handwritten signature in cursive script that reads "Jill Singer".

Jill Singer, Ph.D.

*Professor of Earth Sciences*

*Director, Office of Undergraduate Research*

*The heart and soul of graduate education, research and creativity also foster all we do here at Buffalo State. Our Research and Creativity Celebration showcases some of the best efforts of the type of work that occurs all the time on our campus, and the Graduate School is proud to support this work. I warmly congratulate all the students participating in this great weekend of intellectual and artistic expression – especially all the graduate students – and sincerely thank all the faculty mentors for their commitment to student excellence. As always, we extend a special thanks to Dr. Jill Singer for her passionate leadership in advocating for undergraduate research and for organizing the Research and Creativity Celebration, now in its 14<sup>th</sup> year! .*

Kevin Railey, Ph.D. Associate Provost and Dean, The Graduate School



*Scholarship through research and creativity and student engagement beyond the classroom are at the core of a Buffalo State education. We are proud today to applaud the extraordinary achievements of talented students who have excelled in scholarly pursuits and are sharing their knowledge and experience at the 14<sup>th</sup> Annual Student Research and Creativity Celebration. We also recognize the inspirational leadership of remarkable faculty who continually demonstrate their passion for excellence and their commitment to nurturing students. On behalf of the School of Arts and Humanities, I am honored to congratulate all participants in this celebration. .*

Benjamin C. Christy, A.Mus.D., Dean, School of Arts and Humanities

*It is my pleasure to welcome the students, faculty, staff, and friends of Buffalo State to the Student Research and Creativity Celebration. One of the hallmarks of an exceptional education is the step from consumer to creator of new knowledge or art. The fact that so many members of our campus community embrace this rigorous challenge continues to demonstrate the excellence of those who study and teach at Buffalo State. I join my colleagues in celebrating the achievements of our outstanding students and colleagues as they share their work at the 14<sup>th</sup> Annual Student Research and Creativity Celebration.*

Scott L. Johnson, Ph.D., Dean, University College and Associate Vice President for Undergraduate Education





*Congratulations to all the student presenters participating in the 14<sup>th</sup> annual Student Research and Creativity Celebration. We applaud you on achieving this significant academic accomplishment. Thanks also to the faculty mentors that encouraged and supported student efforts. This event highlights the outstanding work done across our many different academic programs.*

Kevin F. Mulcahy, Ed.D., Interim Dean, School of the Professions

*I am very happy to welcome and congratulate all of the students and their faculty mentors taking part in the 14<sup>th</sup> annual Student Research and Creativity Celebration. I am sure you will find that your participation in this event, and the work leading up to it, to be one of your most valuable educational experiences and a highlight of your academic career. This showcase of the impressive range of outstanding research and creative work by Buffalo State students is my favorite event of the year, and it demonstrates Buffalo State's commitment to student engagement in scholarship.*

Mark W. Severson, Ph.D., Dean, School of Natural and Social Sciences



*Congratulations to all of the presenters taking part in the 14<sup>th</sup> annual Student Research and Creativity Celebration. On behalf of the faculty and staff of the School of Education, I'd like to commend you for your hard work and tireless effort, and to thank you for this wonderful contribution to the academic reputation of Buffalo State College..*

Paul G. Theobald, Ph.D., Interim Dean, School of Education





**Thank you for making the Year of the Arts a great success!**

President Aaron Podolefsky declared the 2011-2012 to be the Year of the Arts at Buffalo State, saying: "The arts are crucial to Buffalo State's mission as a public university. The arts are a source of pride as well as sustenance."

This year, Buffalo State presented more than 300 arts and humanities-related events on campus and in the surrounding community. From performances, exhibitions, and fashion shows to poetry readings, workshops, and lectures, these activities informed and entertained thousands of arts patrons and displayed the immense wealth of creative talent offered by our students, faculty, and community partners.

This year's Student Research and Creativity Celebration features numerous student presentations developed during 'The Year of the Arts'. These include the annual dance concert in the Warren Enters Theatre and a series of concerts in the Performing Arts Center at Rockwell Hall featuring the percussion, vocal jazz, jazz, wind, and honors chambers ensembles, theatrical performances in the Flexible Theatre, and gallery exhibits in the Czurles-Nelson and Margaret Bacon Galleries. Painting and other works of art also will be on exhibit in the E.H. Butler Library.

These creative works would not be possible without the extraordinary contributions of dedicated faculty mentors. Working together, Buffalo State students and faculty make scholarship, research, and creativity hallmarks of a Buffalo State education. Every year is the 'year of the arts' at Buffalo State!

## 'Year of the Arts' Events:

### Warren Enters Theatre, Upton Hall

April 18 – 21, 2012 at 8:00 p.m.

#### Annual Dance Concert: "Alternative Dimension: A Multi-Sensory Experience"

Choreographed by Theater Department Faculty

Note: Additional performance April 21 at 2:00 p.m.

### Performing Arts Center at Rockwell Hall

April 18, 2012 at 7:30 p.m.

#### Concert: Percussion Ensemble

Directed by Professor Brad Fuster, Music

April 19, 2012 at 7:30 p.m.

#### Concert: Vocal Jazz Ensemble

Directed by Professor Victoria Furby, Music

April 21, 2012 at 7:30 p.m.

#### Concert: Jazz Ensemble

Directed by Professor Rick Fleming, Music

Tuesday, April 24, 2012 at 7:30 p.m.

#### Concert: Wind Ensemble

Directed by Professor Rick Fleming, Music

Wednesday, April 25, 2012 at 7:30 p.m.

#### Concert: Honors Chamber Ensembles

Directed by Professor Crystal Reinoso, Music and Professor Rick Fleming, Music

### Czurlles-Nelson Gallery, Upton Hall

April 18-20 and 23-27, 2012

9:00 a.m. – 4:30 p.m.

#### Fine Arts Student Exhibition

### Flexible Theatre, Donald Savage Building

April 24, 2012 at 7:30 p.m.

#### "Kindred" – Original One-Act Play

Play written by: Cynthia Delaney, Writing

Faculty mentor: Professor Cristina Pippa, Theater

Student performers: Julia Smith, Jesse Tiebor, Erika Frase, Rachel Knauff, Trevor Hall, Chelsea Correa, Carmella Losi, Brandon Machajewski, Maggie Wirth, Lee Becker, and Sam Roche

Stage Manager: Lindsey Shelton

## Friday, April 27, 2012

### Flexible Theatre, Donald Savage Building

11:00 a.m. – 11:30 a.m.

#### "PS. Somewhere" – Original One-Act Play

Play coordinated by: Tieisha Thomas, INE 390: Rwanda Theater Exchange

Faculty Mentor: Professor Drew Kahn, Theater

Student performers: Julia Smith, Tieisha Thomas, Brittany Wysocki, Kara Lynn, Shabar Rouse, Travis Brown, Daigi-Ann Thompson, and Lewis Sepulveda

### E.H. Butler Library

5:00 p.m. – 6:30 p.m.

#### President's and Provost's Opening Reception

A culinary activity by students in HTR 400: Catering Management

Faculty Mentors: Professors Stephen Burgeson and

Donald Schmitter, Hospitality and Tourism

#### Preview of Posters and Exhibits, including creative words developed during the 'Year of the Arts'

### Czurlles-Nelson Gallery, Upton Hall

7:00 a.m. – 9:00 p.m.

#### Fine Arts Student Exhibition

### Margaret Bacon Gallery, Upton Hall

7:00 a.m. – 9:00 p.m.

#### D. Form: Senior Exhibition in Jewelry and Metalsmithing

Lena Scapillato, Metal/Jewelry

Note: Additional hours April 28 from 12:00 p.m. – 5:00 p.m.

## Saturday, April 28, 2012

### E.H. Butler Library

#### Posters and Displays

Lobby Atrium and Mezzanine Levels

8:30 a.m. – 4:30 p.m.

Sessions I to VIII, each session one hour in length

#### Oral Sessions, Rooms 208, 210, and 210B

Humanities I, 8:30 a.m. – 11:30 a.m.

Humanities II, 8:30 a.m. – 11:30 a.m.

Science, Mathematics, and Technology

Room 210, 8:30 a.m. – 12:00 noon

Education, 12:30 p.m. – 4:30 p.m.

Humanities III, 12:30 p.m. – 4:15 p.m.

Social Sciences, 12:30 p.m. – 4:30 p.m.

### Flexible Theatre, Donald Savage Building

11:30 a.m. – 12:30 p.m.

#### "Silence" – Original One-Act Play

Play written by: Cassondra Conrad, Theater/Music and Cecelia Barron, Theater

Faculty mentor: Professor Carol Beckley, Theater

Student performers: Elixander Bane, Robert Sherman, Chelsea Correa, and Pamela Mendoza

### Student Union Quad

11:00 a.m. – 2:00 p.m.

#### Demonstrations

##### Ceramics "Throwing On the Quad"

Tina Vu, Jared Zych, Francesca D'Angelo, Katey

Kalanges, and Rachelyn Spry

##### Mini Baja Vehicle "2012 Model"

Daniel Martino, Matthew McCall, Josh Monaco, and Kenneth Norwich

# Saturday, April 28, 2012

## E.H. Butler Library

### Oral Papers

**Rooms 208, 210 and 210B**

### Humanities I

**Room 208**

8:30 a.m. – 11:30 a.m.

*Presenting:*

8:30 a.m. – 9:30 a.m. (*each paper 15 minutes*)

Any Other Name Would Be Just As Sweet

Cortney Drakeford, COM 450: Communication and Society

Advertising and Blind Society

Allison Oste, COM 450: Communication and Society

Beauty Is Only Skin Deep, Or Is It? Advertising To Women

Kimberly Drummond, COM 450W: Communication and Society

Should the U.S. Ban Advertising To Children?

Andrea Curley, COM 450: Communication and Society

9:30 a.m. – 10:30 a.m. (*each paper 15 minutes*)

Game On: America's Army

Jonathan Petzoldt, COM 450: Communication and Society

The Commercial Assault On Childhood

Anthony Stevens, COM 450: Communication and Society

Preying On the Children: Effects of Consumer Culture On Our Children

William Langer, COM 450: Communication and Society

An Analysis of Common Portrayals of Athletes In the Global Mass Media

Alexa Myers, COM 450: Communication and Society

10:30 a.m. – 11:30 a.m. (*each paper 15 minutes*)

Why Nike Is Winning

Jeremy Mountain, COM 450: Communication and Society

How To Raise \$100 Million

Ismet Mamnoon, Creative Studies, Aaron Lepsch, Creative Studies, and Erica Swiatek, Creative Studies

The World Around Us: Advertising and Its Impact On Me

Desiree Wiley, COM 450: Communication and Society

That Makes You Cool? The Engineering of Fads and Trends In Popular Culture

Sara Kurpiewski, COM 450: Communication and Society

### Humanities II

**Room 210B**

8:30 a.m. – 11:30 a.m.

*Presenting:*

8:30 a.m. – 9:30 a.m. (*each paper 15 minutes*)

The Role of Magic and Superstition In the Byzantine Empire

Jonathan Rutter, HON 400: All College Honors Colloquium

The Integration of Consequentialism and Deontology

Ryan Harvey, PHI 401W: Respect Seminar

Fame As a Facade

Sarah Kramer, PHI 401W: Respect Seminar

Yes, Master: The Subordination of Women In the Mass Media

Victoria Palmiotto, COM 450: Communication and Society

9:30 a.m. – 10:30 a.m. (*each paper 15 minutes*)

Hold On, Let Me Put My Purse Down

Jacquelyn O'Brien, PHI 401W: Respect Seminar

Bike For Love: Bringing an End To Human Trafficking

Kathryn Maslanka, COM 495: Bike Fundraiser Project

Rwanda: A Journey To My Roots

Tieisha Thomas, INE 390: Rwanda Theater Exchange

The Rights of Women and the Rights of the Unborn

Nickolas Beauharnois, PHI 401W: Respect Seminar

10:30 a.m. – 11:30 a.m. (*each paper 15 minutes*)

Kindred: A Theatrical Reflection

Cynthia Delaney, HON 400: All College Honors Colloquium

Sex Work and Self Worth: Is Sex Work Compatible With Integrity, Dignity, and Love?

Sarah Caputi, PHI 401W: Respect Seminar and HON 400: All College Honors Colloquium

Respect In Zombie Land

Jason Offerman, PHI 401W: Respect Seminar

Plea's Please – Spare Some Change?

Joshua DeMont, PHI 401W: Respect Seminar

### Sciences, Mathematics, and Technology

**Room 210**

8:30 a.m. – 12:00 noon

*Presenting:*

8:30 a.m. – 9:30 a.m. (*each paper 15 minutes*)

An Unabridged Approach To Lean Implementation:

Understanding the Impact of Corporate Culture On Operating Systems

Joseph Wolkiewicz, INT 689: Research Design and Methods

Design of a Remote-Controlled Friendly Feline Enclosure

Jonathan DeMay, Electrical Engineering Technology



Information Assurance Through Cyber-Security: Building a Better Mouse Trap?

**Richard Frasca**, INT 689: Research Design and Methods

Surface Water Quality and Risk Analysis In a Peri-Urban Area, Thailand

**Jameieka Price**, Masters Multidisciplinary Studies

**9:30 a.m. – 10:30 a.m. (each paper 15 minutes)**

Organic Waste To Energy: A Renewable Energy Source

**Ahmade Shah**, INT 689: Research Design and Methods

Analysis of Street Traffic Density Impact On CO2 and Air Particle Distribution In Beijing, China

**Robin Tedlock**, Geography

The Lifetime Effects of Fish Consumption In Western New York  
**Jennifer Ickowski**, AMT 495: Special Project for Applied Mathematics

Structure Function Analysis of the Innexin Shaking-B: Role of the N-Terminus In Establishing Rectifying Gap Junctions

**William Marks**, Biology

**10:30 a.m. – 11:30 a.m. (each paper 15 minutes)**

Analysis of a Point Mutation (G5W) In the Amino Terminus of Connexin32

**Nicholas Vaughn**, Biology

Limitations In Forensic Science: PCR Inhibitors

**Miranda DeGroot**, Masters Forensic Science

Factors Affecting Treatment Efficacy In Post-Mastectomy Lymphedema Patients

**Shelby Baldwin**, AMT 495: Special Project for Applied Mathematics

Water Permeability of Junctional Proteins In a Non-Junctional Membrane

**Jaafar Hamdan**, Biology

**11:30 a.m. – 12:00 noon (each paper 15 minutes)**

Competition and Predation In a Five Species Model

**Anna Cummings**, AMT 495: Special Project for Applied Mathematics

Nutrition For Less: A Linear Programming Problem For School Lunch

**Janet Albi**, AMT 495: Special Project for Applied Mathematics

## Education

### Room 208

**12:30 p.m. – 4:30 p.m.**

*Presenting:*

**12:30 p.m. – 1:30 p.m. (each talk 15 minutes)**

Increasing Technology Education Enrollment Through Project Lead the Way

**Gary Grant**, INT 689: Research Design and Methods

Technology Solutions: A Study of the Effectiveness of Project Lead the Way

**Christopher Traugott**, INT 689: Research Design and Methods

The Successful Advancement of First Generation African American College Students

**Sonya Johnson**, Early Childhood Education

Personalizing Math

**Vincent Barry**, EDU 651: Math Instruction

**1:30 p.m. – 2:30 p.m. (each talk 15 minutes)**

The Future of Technology Literacy

**Charles Voorhees**, INT 689: Research Design and Methods

Assessing Student Learning of Fourth Graders Using Inquiry Based Science Kits

**Jennifer Kimpton and Christopher Rademacher**, SCI 694: Research in Science Education

Technology Education In the Elementary Classroom

**Daniel Brazeau**, INT 689: Research Design and Methods

The Bilingual Brain: The Importance of Second Language Acquisition In Elementary Education

**Sarah Banas**, HON 400: All College Honors Colloquium

**2:30 p.m. – 3:30 p.m. (each talk 15 minutes)**

Does Readability Affect Student Response?

**Dawn Weihrich**, SCI 690: Assessing Reading in Science

STEM Integration In the Technology Classroom

**Matthew Saramak**, INT 689: Research Design and Methods

Investigating the Impact of Outdoor Education Activities On Rural Student Views

**Maureen Gardner**, SCI 690: Investigating the Impact of Outdoor Education

Assessing Urban Outdoor Education Efficacy

**Scott Cerny, John Miller, and Sean Collins**, SCI 690: Outdoor Education Master's Project

**3:30 p.m. – 4:30 p.m. (each talk 15 minutes)**

Understanding Second Language Learners Perception of Environmental Science

**Jennifer Pigeon**, SCI 690: Understanding Second Language Learners

Development of National Teaching Standards For Technology Education In the US and Its Effect In New York State

**Dan Penski**, INT 689: Research Design and Methods

Meeting Needs: New School Construction and the Technology Education Classroom Facility

**James Kingsboro**, INT 689: Research Design and Methods

Recommendations For the Enhancement of Buffalo State College Business Department's Curriculum

**Jessica Kelly, Christopher Carden, Joshua Pocobello, Thomas Kielich, Robert DeLoreto, Jordan DiPasquale, Michael Ferrentino, and Nicholas Giambra**, BUS 389: Organization Theory



# Humanities III

## Room 210B

12:30 p.m. – 4:15 p.m.

*Presenting:*

12:30 p.m. – 1:30 p.m. *(each talk 15 minutes)*

Franchised Folklore: Exploring Beauty and the Beast In Modern America

Devon Cozad, English

American Folk Music of the 1960s

Dan Darnley, MUS 440W: Ethnomusicology

Geisha's Melody: Traditional Music of Japan

Kevin McGrath, MUS 440W: Ethnomusicology

Isicathamiya: South African Music From Coal Mines To Paul Simon

Marie Bofinger, MUS 440W: Ethnomusicology

1:30 p.m. – 2:30 p.m. *(each talk 15 minutes)*

A Familiar Tale Turned Upside Down: The Unconventional Use of Sentimentality and Seduction In the Scarlet Letter

Gail Graesser, ENG 442: American Novel to 1900

Chromatic Modification In Sergei Prokofiev's Symphony No. 5, Op. 100

Abigail Spoth, MUS 303W: Music History 2

Isidor Philipp and the Art of Piano Pedagogy

Aaron Masters, MUS 303W: Music History 2

The Lively and Fabulous Fiddle

Michael Campbell, MUS 440W: Ethnomusicology

2:30 p.m. – 3:30 p.m. *(each talk 15 minutes)*

Fictionalizing Resistance: Scheherazade and Her Reincarnation In the Modern Arab Novel

Amy Widman, English Education

I m teh Awes0mx0r: Gamer Speak and Establishing Hierarchies Online

Jeffrey Gumkowski, HON 400: All College Honors Colloquium

Structure and Indeterminacy: The Musique Concrète Styles of Edgard Varèse and John Cage

John Smigielski, MUS 303W: Music History 2

Shimmying Across the Atlantic: Development In Belly Dance and Its Music

Laura Klemann, MUS 440W: Ethnomusicology

3:30 p.m. – 4:15 p.m. *(each talk 15 minutes)*

The Global Effects of Hip-Hop Culture

Elenni Davis-Knight, COM 450: Communication and Society

It's Not a Cartoon - It's Anime: Foreign Media Mixing In

MacKenzie Clarke, COM 405: Communication and Society

Not Just Fish: The Spanish Musical Tradition "La Tuna"

Rachel Giuseppetti, MUS 440: Ethnomusicology

# Social Sciences

## Room 210

12:30 p.m. – 4:30 p.m.

*Presenting:*

12:30 p.m. – 1:30 p.m. *(each talk 15 minutes)*

The Impact of Social Media On the Field of Journalism

Eric LaClair, COM 450: Communication and Society

Video Games: Growing Issue Or Healthy For the Mind

Daniel Fortuna, COM 450: Communication and Society

The Effects of Intimate Partner Violence On Young Adults: Academic Achievement, Sleep Quality and Socialization

Chanele Haynes, Criminal Justice

Safe Space: A Creative Approach To Bullying Intervention In a Virtual Environment

Ted Mallwitz, Creative Studies

1:30 p.m. – 2:30 p.m. *(each talk 15 minutes)*

Edward Murrow: The Misinformed Public

Matthew Sodon, SPC 321: Rhetorical Criticism

Buffalo State College Students: An Analysis of Factors Affecting Their Perceived Sexual Behaviors

Brittany Edwards, Sociology

Starving For Perfection: U.S. and Beyond

Erin Albert, COM 450: Communication and Society

The Physiological Effects of Gatorade Versus Diluted Fruit Juice During Exercise

Alexander Ford, Dietetics

2:30 p.m. – 3:30 p.m. *(each talk 15 minutes)*

A Cross-Cultural Analysis of Negative Body Image: Who Is To Blame?

Kathryn Maslanko, COM 450: Communication and Society

Listen To the Hand: Gestures Aid the Comprehension of Ambiguous Pronouns

Megan Delo, PSY 499: Independent Study

Going the Distance: Comprehending Pronouns As Distracting Entities Increase

Bryan Wight, PSY 499: Independent Study

How Multi-Cultural Exposure Impacts the Social Health of College Students

Alexis Amankwanor, Health and Wellness

3:30 p.m. – 4:30 p.m. *(each talk 15 minutes)*

Mediated Gender Rules: What Boys and Girls Are "Supposed To Be"

Edward Mazzu, COM 450: Communication and Society

Participatory Action Research In Peru's Ancash Province

Edward Lazzaro, ANT 499: Independent Study in Andean Medical Anthropology

Two Short Weeks In the REAL Emerald City: How Does Study Abroad Affect Learning?

Maureen Vitali, HON 400: All College Honors Colloquium

Democracy In the United States and China

Adonis Kernen, SOC 208: Sociology of Contemporary China

# Poster Sessions and Displays

## Butler Library Lobby

8:30 a.m. – 4:30 p.m.

### Session I: 8:30 a.m. – 9:30 a.m.

#### *Presenting:*

The Ambassador Shuffle

**Sarah Brown**, HON 400: All College Honors Colloquium

Art and Healing: A Leap of Faith?

**Susan Duval**, Art History

Barbara Ehrenreich's Nickel and Dimed and the American Working Class In 2012

**Eric Bucklaew**, HON 400: All College Honors Colloquium

Beyond the Link

**Stephanie Kahn**, Metals/Jewelry

Bullying: Behavioral Consequences On College Students

**Latrell Sturdivant**, Psychology

Changing of the Guard: How Mao and Nixon Changed Their Ideologies

**Jonathan Keenan**, SOC 208: Sociology of Contemporary China

Chemical Chromism: The Coloration of Metal

**Lena Scapillato**, Metal/Jewelry

Communication Strategies: Recruiting Students For Study Abroad

**Victoria Church**, HON 400: All College Honors Colloquium

Cows and Cotton: What a Combination!

**Monique Cheek**, FTT 450W: Issues in Apparel and Textile Industry

Crayon Connections: Using Coloring Book Pages To Facilitate Letter-Sound Recognition

**Mackenzi Jacobs**, HON 400: All College Honors Colloquium

Dear Professor, So You Think You're Having an Effect On Your Students

**Tyler Sutton**, PSY 499: Independent Study

Design 101: Events

**Melissa Wasserman**, HTR 375: Events Management

Explorations In Soft Furnishings

**Kelly Caruso**, Wood/Furniture and **Erin Curry**, Fibers

Finding a Quarterback: Statistically Speaking

**Breanna Fenski**, HON 400: All College Honors Colloquium

The Impact of Labor Strikes Upon Labor Unions, Workers' Rights, and Subsequent Labor Legislation Enactment

**Catherine McCulle**, HON 400: All College Honors Colloquium

Indigenous Feminism

**Amanda Oldham**, ANT 499: Advanced Indigenous Studies

Integrating Non-Traditional Forms of Literacy Into Content Areas Equals Success

**Kelly Bohlen**, **Melissa Barris**, and **John McGowan**, EDU 609: Literacy Instruction in the Upper Grades

Interactive Strategies To Engage All Learners

**Christine Oehman**, **Katarina Silvestri**, and **Clair Carrell**, EDU 609: Literacy Instruction in the Upper Grades

Jewish Immigration 1933-1948: A Global Colonial Conflict

**Jani Cash**, History

McCarthyism: A Look At the History and How It Relates To America Today

**Kevin Murphy** and **Brianna Murphy**, HON 400: All College Honors Colloquium

Mind Or Body: Willingness To Undergo Predictive Medical and Psychological Testing

**Mark Zdrojewski**, Psychology

Nature Play On the East Side

**Carole Anne Andrzejewski**, Individualized Studies

Not Just For Fabric: The Many Uses of Cotton

**Kerri Britton**, FTT 450W: Issues in Apparel and Textile Industry

A Quest For Treasure: A Behavior Change Plan

**Gretchen Pascolini**, HON 400: All College Honors Colloquium

Saving the World One Shirt At a Time: The Patagonia Story

**Sara Geartz**, FTT 450W: Issues in Apparel and Textile Industry

Sexual Education and Risky Sexual Behavior In College Students

**Kathryn Larson**, Psychology and **Caitlyn Gorham**, Psychology

The Sex Offender Registry: Policy, Punishment, and Effectiveness

**Ciera Sundquist**, HON 400: All College Honors Colloquium

Spatial Analysis of Sex Crimes Within the City of Buffalo, New York

**Jennifer O'Neil**, Criminal Justice

They Have Never Stopped Living Under My Bed: A Sculptural Interpretation of Fears

**Francesca D'Angelo**, HON 400: All College Honors Colloquium

This Stress... Is a Mess!

**Danielle Kane**, HTR 375: Events Management

To Capture Your Mind and Tell Their Story: Captivity Narratives

**Adam Bardol**, ANT 499: Advance Indigenous Studies

Understanding and Surviving HIV

**Daniel Dienhoffer**, HON 400: All College Honors Colloquium

The US: King of Cotton

**Allison Bornemisza**, FTT 450: Issues In the Apparel and Textile Industry

Uses of Cotton In the Medical Industry

**Crystal Kosmider**, FTT 450: Issues In the Apparel and Textile Industry

Venues On the Go

**Julyvette Guerrero**, HTR 375: Events Management



What's Your Problem? Students' Experiences With Incivility At School and Work

**Salome Tsige**, Psychology

The Wedding of a Lifetime

**Kelly Weise**, HTR 375: Events Management

White Savages: The Portrayal of European Women In Captivity Narratives

**Annie Connors**, ANT 499: Advanced Indigenous Studies

## **Session II: 9:30 a.m. – 10:30 a.m.**

*Presenting:*

Archaeology At Old Fort Niagara

**Jennifer McLaurin**, ANT 499: Old Fort Niagara Excavation Report Writing

Are You Supercharged?

**Nicole Aversa**, FTT 450W: Issues in Apparel and Textile Industry

Are We Smarter With Our Hands? Relationship Between Gesturing and Fluid Intelligence

**Carla Kuhl**, PSY 499: Independent Study

Breathe Easy, Save Money: Sustainability In the Clubhouse

**Alex Davis**, **Karen Coughlin**, and **Makayla Bidell**, HTR 375: Events Management

Bronze and Aluminum Casting

**Zachary Pritchard**, FAR 343: Advanced Sculpture

Certification Proclamation: The Story of Certified Organic Cotton

**Jessica Jaroszewski**, FTT 450W: Issues in Apparel and Textile Industry

Channelling Space: A Sculptural Installation

**Rachel Wright**, FAR 343: Advanced Sculpture

Change Blindness At the Movies

**Ryan Brownell**, **Lindsay Cosenza**, **Amanda Grenier**, **Caley Wekenmann**, **Latisha Swanson**, **Raisa Reyes**, **Alyssa Grove**, **Tessa Bechtold**, **Chris Miller**, **Nolan Przybyciel**, **Lauren Stanley**, **Nick Schultz**, **Amanda Wasielewski**, **DeLeon Hughes**, and **Jessica Brow**, Psychology Club

A Cut Above

**Lena Scapillato**, Metals/Jewelry

Developing Basic Mastery of Mathematics For Elementary Students

**Maria Horanburg**, EDU 690: Master's Curriculum and Assessment Project

Digitizing Corporal Collections

**Brandi Simmang**, ANT 495: Cataloging Bones

The Effects of Judge Gender On Jurors' Decisions To Follow Directions

**Leticia Tellez**, Psychology and Women and Gender Studies

Eye Tracker and Art Perception

**Victoria Bitterman** and **Kathryn Przybysz**, PSY 488: Internship

The Fabric of Our Lives Has a Story To Tell

**Ciara Wilson**, FTT 450W: Issues in the Apparel and Textile Industry

From the Runway To Your Closet

**Alicia Godfrey**, **Brittany Chapman**, **Brittany Morgante**, and **Aziza DuBoi**, FTT 358: Fashion Forecasting and Consumer Issues

The Heart of the Matter: Focusing On the "Behind The Scenes" Aspects of an Event

**Sharissa Isiah**, HTR 375: Events Management

Inclusion of Students With Intellectual Disabilities In a Post-Secondary Setting

**Shanice Johnson**, EXE 364: Educating Students with Severe Disabilities

Korean Mountains: A Force of Unification

**Kyrie Vermette**, HON 400: All College Honors Colloquium and GEG 499: Independent Study

Life Isn't Always a Happy Ending: The Lies That Disney Told Us

**Matthew Schmidt**, HON 400: All College Honors Colloquium

Metalsmitten: Metal Work Mixed With Chase and Repousse

**Lena Scapillato**, Metals/Jewelry

Over the Top: Trends Forecasting For Women's Tops In Fall and Winter 2012

**Janette Salloum**, **Melissa Wesner**, and **Aries Thompson**, FTT 358: Fashion Forecasting and Consumer Issues

Patterns In Kindergarten

**Kara Cartwright**, EDU 690: Master's Curriculum and Assessment Project

Pennies On the Dollar: Transformation From Ordinary To Extraordinary

**Rachel Johnson**, HTR 375: Events Management

Personality and Color Preference

**Bryanna Trotman**, Psychology and **Lisa Bores**, Psychology

Pima Versus Upland Cotton

**Danielle Colvin**, FTT 450W: Issues in the Textiles Industry

Primary Patterns

**Jessica Wild**, EDU 690: Master's Curriculum and Assessment Project

Princess Priming May Have an Adverse Effect On How Women Self-Identify With Math

**Katherine Mosier**, Psychology

Psychology of Food, Impulse, Political Preference and Personality

**Christina D'Orazio**, PSY 499: Food and Politics

Slow Down, You're Russian the Beat! An Overview of Russian Folk Music

**Jennifer Babcock**, MUS 440W: Ethnomusicology

The Snow Season That Wasn't

**Michael Borrelli**, Geography

Sooner Rather Than Later: The Role of Primacy and Recency In the Driver Attribution Process

**Courtney Bieniek and Brittany Leo**, PSY 499: Independent Study

A Steel Stronghold Turned Stagnant: An Examination of Local Leadership's Role In the Decline of Bethlehem Steel In Lackawanna, NY

**Gretchen Garrity**, HON 400: All College Honors Colloquium

Student Academic Success

**Jacqueline Melo**, Psychology

Teaching 21st Century Thinking Skills

**Ismet Mamnoon**, Creative Studies

Women of Color and the Journey To Self-Sexual Acceptance

**Alisa Hawkes**, WGS 495: New Age of Sex

Written In Bone: An Analysis of Skeletal Anomalies

**Annie Connors**, ANT 495: Skeletal Anomalies

### **Session III: 10:30 a.m. – 11:30 a.m.**

*Presenting:*

Aligning Social Studies Curriculum With Science, Math, and the Arts To Develop Critical Thinkers

**Danielle Huber**, EDU 590: Educational Web Design

Anybody Seen That Hominin? Cataloging Hominin Casts With PastPerfect

**Megan Barr**, ANT 495: Past Perfect

Are There Universal Teaching Strategies In the Learning and Teaching of Mathematics?

**Jenna Fanara, Meaghan Angelhow, Kelly Jasinski, Eric Gensler, Holli Diez, Scott Allen, Jessica Andres, Kylie Catanzaro, Angela Frost, and AnnMarie Henesey**, EDU 312: The Teaching of Mathematics and Science in the Elementary School

Articulate Ancients: Cave Art As Communication

**Angela Broughton**, HON 400: All College Honors Colloquium

Cotton and Its Wonders

**Nicole Trimper**, FTT 450W: Issues in Apparel and Textile Industry

Cups of Fire

**Robert Sturgess**, Ceramics

Darling Yet Daring Dresses

**Kelsey Boerema, Kelly Conway, Erica Flemings, and Lisa Clark**, FTT 358: Fashion Forecasting and Consumer Issues

Don't Judge a Symphony By Its Composer: Progressivism In Music of Brahms

**Samantha Arcara**, MUS 303W: Music History 2

Distinguishing Defiant Drinkers

**James Harter**, PSY 496: Honors Thesis

Drinking Young

**Philip Dulmage**, HEW 411W: Critical Issues in Health and Wellness

Economy of Refugees: What Factors Contribute To Employment Status of Liberian Refugees In Staten Island, New York?

**Khadijat Olagok**, PSC 330W: US Foreign Policy

The Effects of Driving Personal Space and Personality On Tailgating Behavior

**Rebekah Whited**, Psychology and **Paul Incorvaia**, Psychology

The Effects of Off-Season Weddings On the Hospitality Industry

**Stacy Soto**, HTR 375: Events Management

Electrified Education

**Jodie Bonnas**, EDU 690: Master's Curriculum and Assessment Project

Emergent Writing

**Amanda Norton**, EDU 690: Master's Curriculum and Assessment Project

Eurythmy and the Etheric Body Applied To Language Processing

**Maude White**, PSY 330: Psychological Power of Language

An Exploration of Cotton Production In Turkey

**Chanel Taylor**, FTT 450W: Issues in the Apparel and Textile Industry

Exploring the Human Body

**Ian Carr**, FAR 343: Advanced Sculpture

Fabrication of Glass Cabochons

**Stephanie Kahn**, HON 400: All College Honors Colloquium

Fair Trade Cotton: A Positive Alternative

**Faith Scheffer**, FTT 450: Issues in the Apparel and Textile Industry

Finding Your Roots: Put That In Your Bagpipe and Smoke It

**Ariel Bauerlein and Brianna Corgel**, MUS 440W: Ethnomusicology

Five Major Road Blocks When Planning Your Event

**Britton Buczkowski**, HTR 375: Events Management

Grade Five Mathematics: Interactive Web-Based Curriculum

**Kelly Wrzochul**, EDU 690: Master's Curriculum and Assessment Project

Hand Gestures Used In the General Assembly Meetings At the Occupy Protests

**Lauren Stanley, Nicole Meyer, and Jay Kaplewicz**, PSY 330: Psychological Power of Language

The Language of Music and Dance: A Look At the Haudenosaunee Nations

**Ryan Awayda, Joseph Cheslak, Rachel Knauff, Michelle Notaro, and Kelly McGlynn**, MUS 440W: Ethnomusicology

Making Connections: Metal and Ceramics

**Michelle Sallander**, Ceramics

The Motivations For Success of African American Male Students Enrolled At Buffalo State College

**Ahmad Islam**, Sociology



Planting a Seed In Young Minds: Primary Students Learn About Their Environment

**Lisa Henning**, EDU 690: Master's Curriculum and Assessment Project

Racism Against Indigenous Students At the Universidad San Francisco De Quito

**Erica Hernandez**, Anthropology

Reading Fractions: Using Children's Literature To Increase Understanding of Fractions

**Sarah Zera**, EDU 651: Theory, Research and Practice in Mathematics Instruction

Recycling Cotton

**Kelsey Boerema**, FTT 450W: Issues in Apparel and Textile Industry

Seeing Reading Through a New Perspective: Sight Word Games

**Zachary Best**, HON 400: All College Honors Colloquium

Stature Estimation Comparison

**Jennifer McLaurin**, ANT 495: Skeletal Stature

Teacher Candidates: Click Here! How To Make the Most of a PDS Website

**Stephen Malone**, Elementary Education

Teacher Candidates: Vital Stakeholders In Professional Development Schools

**Devin Bartlett**, Combined Childhood and Early Childhood Education

Wait A Cotton Pickin' Minute, It's King!

**Brittany Chapman**, FTT 450: Issues in the Apparel and Textile Industry

## **Session IV: 11:30 a.m. – 12:30 p.m.**

### *Presenting:*

ADHD and Adjustment To College: Major Changes and Grade Retention

**Amanda Grenier**, Psychology

Assessment of "Anxiety" In Rats Using an Elevated Plus Maze

**Chris Cejka**, Psychology and **Melissa Young**, Psychology

"Bale" Out: Cotton Prices Are Rising!

**Courtney Kiff**, FTT 450W: Issues in Apparel and Textile Industry

Common Core Learning Standards: Using Informational Text In Teaching Science and Social Studies

**Courtney Hammond**, Masters in Early Childhood and Childhood Education and **Robyn Ruiz**, Masters in Early Childhood and Childhood Education

Cotton Production In India: Changing Lives?

**Philip Fatuzzo**, FTT 450W: Issues in Apparel and Textile Industry

Diapers In the Dumps: A Comparative Analysis

**Aziza DuBois**, FTT 450W: Issues in the Apparel and Textile Industry

Don't Hate Liberate: Suicide In the Gay and Lesbian Community

**Tocarra Baguma**, HEW 411W: Critical Issues in Health and Wellness

The Dramatic Side of Wedding Dances: The Sicilian Tarantella

**Paul Lowecey**, MUS 440W: Ethnomusicology

Eco-Chic Weddings: Wearing Killer Heels Without Leaving a Footprint

**Monique Sayles**, HTR 375: Events Management

The Effectiveness and Safety of Ginkgo Biloba

**Emily Wax** and **Hillary Turkovitz**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Exploring a Possible College Drinking Motive: Defiance

**James Harter**, Psychology

Fifth Grade Moon Phasing: Curriculum Mapping

**James Zacher II**, EDU 690: Master's Curriculum and Assessment Project

Friendship Qualities, Academic Interest, and Academic Performance In College

**Geraldine Erokwu**, Psychology

An Inch and a Hop Into Life: Life Cycles

**Emily Thiesen**, EDU 690: Master's Curriculum and Assessment Project

Journey To Beijing: Chinese Culture and Its Effect On Business Practices

**Lauren Nichter**, HON 400: All College Honors Colloquium

Making Billions From an Unnecessary (and Potentially Harmful) Product: The Nike Story

**Robert Zielonka**, COM 450: Communications and Society

Moe'uhane: Go Ahead, Dream On

**Faith Scheffer**, Fashion and Textile Technology and **Arkeida Wilson**, Fashion and Textile Technology

Molding Young Minds

**Sarah McNutt**, Ceramics and Art Education

Money and Survival: West Africa Versus the US

**Kelly Conway**, FTT 450: Issues in the Apparel and Textile Industry

Poetry's Progression: The Rearranging of Shakespeare's Sonnets

**Ashley Bennett**, HON 400: All College Honors Colloquium

Record Low Snowfall On Buffalo State Campus

**Branden Peplowski**, Geography

Sales Forecasting For Menswear

**Kelsey Boerema** and **Richard Smith**, FTT 350: Fashion Merchandising Applications

Seven Habits of Highly Effective Event Managers

**Rachel Pettys**, HTR 375: Events Management

Sexual Behavior and Religiosity Among Undergraduate College Students

**Edward McCarthy IV**, Psychology

Shadows Under the Bed  
**Mallory Scheller**, FAR 343: Advanced Sculpture

Should We Respect Female Sex Workers?  
**Alexis Molzen**, PHI 401: Respect Seminar

Style Forecasting: Dress To Impress  
**Paula Jacobson, Erika Jackson, Chelsea Randolph, and Nicole Trimper**, FTT 358: Fashion Forecasting and Consumer Issues

Technology In Schools: Harmful Or Helpful  
**Joanna Cianciosa**, HON 400: All College Honors Colloquium

Till' Death Do Us Part... Literally  
**Diamond Brown**, PHI 401: Respect Seminar

Treatment of an Adult With Persistent Childhood Apraxia of Speech  
**Michael Maerten**, SLP 690: Master's Project

Underage But Overweight  
**Kevin Carr**, HEW411 W: Critical Issues in Health and Wellness

UNIQLO: An Innovative Fashion Company  
**Fatimah Muhammad**, FTT 455: Issues in Merchandising and Fashion Retailing

Use of Silicone With Ceramic Forms  
**Robert Sturgess**, Ceramics

Using Graphs To Enhance Mathematical Reasoning and Number Sense In Preschool Students  
**Paige Decosse**, EDU 651: Research, Theory, and Practice in Mathematics Instruction

Vitamin D: A Multi-Tasking Prohormone For a Healthy Body  
**Jane Calvert and Emily Frack**, NFS 330: Seminar on Complimentary and Alternative Nutrition and HON 400: All College Honors Colloquium

## **Session V: 12:30 p.m. – 1:30 p.m.**

### *Presenting:*

Ackermann: Steering You In the Right Direction  
**Matthew McCall, Daniel Martino, Ken Norwich, and Josh Monaco**, ENT 422: Machine Design II

ADHD Symptomology In the Elderly  
**Mary Wagner**, Psychology

Alternative Political Thought and Real Political Practice  
**Robert Horwitz**, PSC 470: Senior Seminar

Aristotle and Respect As a Virtue  
**Jenna Tomasello**, PHI 401: Respect Seminar

Breaking the Fall  
**Sarah Clerc**, HEW 411W: Critical Issues in Health and Wellness

Color Your Troubles Away: Art For Bettering Mood and Mental Health  
**Veronica Luppino**, HON 400: All College Honors Colloquium

Determination of Synephrine In Weight Loss Supplements  
**Anita McAndrew**, CHE 495: Forensic Chemistry Applications

Determination of Theobromine In Cocoa and Tealeaves  
**Sheila Hagerty**, FOR 614: Forensic Applications of Instrumental Analysis

Digging Up the Dirt: Utilizing Ceramic Materials From Your Own Backyard  
**Sarah McNutt**, Ceramics and Art Education

Does Phrase-Formatted Text Improve Reading Comprehension?  
**Taylor McCall**, SLP 495: Independent Study

The Effect of Predator-Stimulus Exposure On Defensive Responding In Rats  
**Melissa Young**, Psychology and **Chris Cejka**, Psychology

Effectiveness of Federal SAFER Grants In the Recruitment of Volunteer Fire Fighters  
**Joseph Ehnes**, PSC 470W: Senior Seminar

Emotional Intelligence and Alcohol In the Family  
**Tricia Lewis**, SWK 307: Human Behavior 1

Examining the Role of Property Rights In the Same-Sex Marriage Debate  
**Christina Julien**, PSC 470W: Senior Seminar

An Exploration of Unisex Skateboarding Apparel  
**Gwendolyn Smith**, FTT 451: Senior Project

Fair Trade and Organic Consumption: African-American Students' Attitudes Toward Food Choices  
**Ariel Peters**, PSC 470W: Senior Seminar

The Female Form: Painted In Oil Before Translating Into Sculpture  
**Alison Spongr**, Painting and Sculpture

Gender and Characteristic Overlap Among Cluster B Personality Disorders  
**Morgan Morningstar**, Psychology

In the Making: The Production of the Short Film In Reprisal  
**Sean Tresmond**, HON 400: All College Honors Colloquium

Into the Loop: Explorations In Fashion Knitwear  
**Anthony Bruce**, Fashion and Textile Design Technologies

Knock To Unlock Your Door  
**Benjamin Furco, William White, Barbara Kiliszek, and Thomas Newcome**, ENT 465: Electrical Design

Manufacturing Heat Exchangers  
**Stephen Kosinski**, ENT 422: Machine Design II

National Multiple Sclerosis Society: An Internship In Public Event Management  
**Carlos Cisneros Vilchis**, Business Administration

Non-Traditional Bookbinding  
**David Huurman**, Printmaking

Paying the Price  
**Melissa MacQueen**, HEW 411W: Critical Issues in Health and Wellness

Persistence of Enhanced Anxiety-Like Behaviors After Predator-scent Exposure In Rats

**Moje Omoruan**, Psychology and **Daniel Moscov**, Psychology

Pop a Pill

**Ian Wilhelm**, HEW 411W: Critical Issues in Health and Wellness

The Predicaments of Becoming a Mother

**Mariam Abdo**, HEW 411W: Critical Issues in Health and Wellness

Religious Coping With Academic Stressors and Student Self-Efficacy

**Pamela Mordick**, Psychology

Respect and Nuclear Weapons: An Exploration In International Affairs

**Matthew Guminiak**, PHI 401: Respect Seminar

The Science of Appliance: The Blogging Intern

**Danielle Dudkowski**, BUS 378: Business Professional Practice

The Short-Term Effects of Caffeine Consumption On Reaction Time and Physiological Behaviors

**Sopheeah DeTine**, Psychology, **Laura Thomas**, Psychology, and **Michelle Switzer**, Psychology

Traditional Non-Ferrous Alloys

**John Harris**, Metals/Jewelry and Anthropology

Undergraduate Learning Assistants In a Hybrid Economics Course

**Heather Dennis**, **Liza Sang Yan**, **Amber Buchholz**, **Daniel Flaherty**, **Katelyn Reese**, **Chanil Mejia**, **Cory Lauber**, **Joshua Naughton**, **Brittany Leo**, and **April Musielak**, ECO 101: The Economics System

Who's Affected?

**Kim Georges**, HEW 411W: Critical Issues in Health and Wellness

We Are All Tied To Something

**Andrew Hutner**, FAR 343: Advanced Sculpture

Winter Wonderland Workshop

**Michael Guerin**, Social Work

## **Session VI: 1:30 p.m. – 2:30 p.m.**

*Presenting:*

Bearing Frosting On FS Elliott Compressors

**Jonathan Kress** and **David Stabel**, ENT 422: Machine Design II

Better Safe Than Sorry?

**Samantha D'Agostino**, HEW 411W: Critical Issues in Health and Wellness

Composite Metals

**Josh Vail** and **John Wilson**, ENT 422: Machine Design II

Cotton Incorporated's Efforts To Remain On Top With Moisture Management Technologies

**Erika Jackson**, FTT 450W: Issues in Apparel and Textile Industry

Cotton Production in China

**Kristin Fildes**, FTT 450W: Issues in Apparel and Textile Industry

Cotton: The Staple of the Industrial Revolution In Britain

**Lydia Mittiga**, FTT 450W: Issues in Apparel and Textile Industry

Determination of Critical Micelle Concentration of Surfactants Using a Microfluidic Device

**Hasina Hamin**, Chemistry and **Brandon Sligh**, Chemistry

Determination of Nicotine In Various Tobacco Samples

**Chelsey Whitson** and **Melissa Boler**, FOR 614: Forensic Applications of Instrumental Analysis

Determining Neutron Age In Distilled Water

**Steven Tarasek**, Physics

Exploration of a Green Energy Source

**Scott Bender**, **Kevin Sayers**, and **Jerry Benbenek**, ENT 422: Machine Design II

Faces On the Tree: Exploring Heritage Through Portraiture

**Julia Bottoms**, Painting (Note: Location – Mezzanine)

Geochemical Analysis of Associated Granite Bodies From the Eastern Sebago Pluton, Maine

**Krista Ventura**, Geology

Growth and Low Temperature Optical Studies of  $\text{HoMnO}_3$  Thin Films

**Anthony Delmont**, Physics

Improvements To the Rotating Tank

**Kari Clayton**, Earth Sciences

Inspired By Nature

**Leigh Johnson**, FAR 343: Advanced Sculpture

Interpreting the Eruptive History of El Salvador's Santa Ana (Ilamatepec) Volcano Through Detailed Stratigraphic Analysis of Pre-1904 Deposits

**Elisabeth Gallant**, Geology

Is Captain America Required To Save the World? An Examination Into What Morality Requires of Us On an International Foreground

**Nadeen Bawab**, PHI 401: Respect Seminar

McGard Spline Drive Lug Nut Analysis

**Shawn Dunn** and **Alexander Henry**, ENT 422: Machine Design II

Overusing Pesticides On Cotton Can Harm You, Animals, and the Environment

**Emily Kostraba**, FTT 450W: Issues in Apparel and Textile Industry

Parent Survey Evaluation and Distribution of Targeted Project  
Safe Neighborhood Messages

**Jason Ribbeck and Samantha Panzica**, HEW 488:  
Internship

Phytochemicals and the Treatment of Certain Cancers  
**Alyssa Colangelo and Amanda Johnston**, NFS 330:  
Seminar on Complimentary and Alternative Nutrition

Pillars of Salt: A Sculptural Exploration of Religious Hypocrisy In  
a God-Fearing Country  
**Brian Nacov**, FAR 343: Advanced Sculpture

Probiotics: Claims, Research, and Application For Nutrition  
**Kim Murrell and Janessa Shaw**, NFS 330: Seminar  
on Complimentary and Alternative Nutrition

Recycled Cotton: A Step In the Right Direction  
**Ashley Grace**, FTT 450W: Issues in Apparel and  
Textile Industry

Sleep and GPA: Does Sleep Really Matter?  
**Kaitlyn Wardour**, HON 400: All College Honors  
Colloquium

Studies of Growth and Optical Properties of  $\text{LuFe}_2\text{O}_4$  Thin Films  
**Aaron Sprow**, Physics and **Anthony Delmont**,  
Physics

Studies of the Gap Junction Protein Connexin31  
**Orlando McEwan**, BIO 498: Biology Honors

Sustainability In Fashion: What's the Big Deal?  
**Kathryn Jakubowski**, FTT 450W: Issues in Apparel  
and Textile Industry

Texas High Plain Farmers Clearing a Dry Throat Full of Cotton:  
The Ogallala Aquifer Depletion  
**Rachel Hamerski**, FTT 450W: Issues in Apparel and  
Textile Industry

Textural and Structural Connections Along the Metamorphic Field  
Gradient In Philadelphia, PA  
**Jennifer Wehrfritz**, Earth Sciences and Geology and  
**Albert Tahan**, Geology

Traditional Drafts Applied To Contemporary Weavings  
**Tegan Ford**, Fibers

Trends In U.S. Mathematics Achievement Over Forty Years  
**Tara Blair**, HON 400: All College Honors Colloquium

Undergraduate Learning Assistants: A Hybrid Microeconomic  
Course  
**Kaitlin Fetes**, **Daniel Flaherty**, **Cory Lauber**, and  
**Desiree Wiley**, ECO 202: Principles of  
Microeconomics

Until Irreconcilable Differences Do Us Part: How Divorce Affects  
Adult Offspring  
**Kira Bruce**, Psychology

The Water Cycle  
**Ashley Yaiser**, EDU 690: Master's Curriculum and  
Assessment Project

Why Is Science an Important Subject In Elementary Schools?

**Laura Snyder, Michelle Valentine, Melissa Polanc,**  
and **Kelly Buchanan**, EDU 312: The Teaching of  
Mathematics and Science in the Elementary School

## **Session VII: 2:30 p.m. – 3:30 p.m.**

*Presenting:*

Acculturation of Immigrant Dietary Eating Patterns  
**Kamila Mysiak**, NFS 315: Life Cycle and Community  
Nutrition I

Alternative Therapies: Using Glucosamine, Chondroitin, and MSM  
**Maggie LaMantia and Susan Semeraro**, NFS 330:  
Seminar on Complimentary and Alternative Nutrition

Beach Sand As a Reservoir For *E. coli*: Implications of Water  
Quality Testing  
**Nicole Bennett**, Geology

Be Who You Are, Not What You See!  
**Lakeisha Robinson**, HEW 411W: Critical Issues in  
Health and Wellness

Block Game Engine With Multi-Language Options  
**Kenny Chen and Steven Yang**, CIS 435: Programming With  
Python

Bonnet Fixture Design  
**Greigh Gruarin**, ENT 422: Machine Design II

Contaminant Testing of South Park Lake, Lackawanna, New York  
**Amanda Klawinski and Peter Zaffram**, GES 460:  
Environmental Field Methods and Analysis

Cryptography: An Evolution From Hieroglyphics To the Internet  
Era  
**Anthony Laffrado**, HON 400: All College Honors Colloquium

Deflection, Thermal Expansion, Impact and Rigidity of Textured  
Metals  
**Josh Vail**, ENT 422: Machine Design II

Determination of Menthol In Various Menthol-Containing Natural  
Samples  
**Sandra Jones and Nicole Martin**, FOR 614: Forensic  
Applications of Instrumental Analysis

Development of Automated Torque Wrench Tests For Innovative  
Security Products  
**Shawn Dunn and Alexander Henry**, ENT 422: Machine  
Design II

An Error Term For Levinson's Inequality  
**Allan Sesay**, Mathematics

Fabrication of Microwell Array For Studying Single Cell Volume  
Regulation  
**Valerie Fleischauer**, Chemistry and Forensic Chemistry

Has Cazenovia Park Impacted Cazenovia Creek?  
**West Cassenti, Rafael Manenti, and Brittany**  
**Carlson**, GES 460: Environmental Field Methods and Analysis



High Speed Web Development Using Django and South  
**Franklin Kumro Jr.**, CIS 435: Programming With Python

Implementation and Evaluation of the “Got Health?” Program  
**Samantha Panzica, Jason Ribbeck, and Joelle DelMonte**, HEW 488: Internship

Interference Fit Analysis On FS Elliott Compressor Impellers  
**David Stabel and Jonathan Kress**, ENT 422: Machine Design II

Investigating the Role of Grp170a In Protein Folding Within the ER of *Caenorhabditis elegans*  
**Nicholas Vaughn**, Biology

Keep Me Comfortable and Safe: The Case For Using Cotton In Protective Apparel  
**Shardae Johnson**, FTT 450W: Issues in Apparel and Textile Industry

Naturalistic Pictorial Space To Formalistic Reconstructions: A Search For Direction and Growth As a Painter  
**Brian Nacov**, Painting (Note: Location – Mezzanine)

Nature Made Sculpture Materials  
**Leigh Johnson**, FAR 343: Advanced Sculpture

Obesity: What This Country Is Coming To  
**Jordan Blatz**, HEW 411W: Critical Issues in Health and Wellness

Process Development For Changing Pressure Connectors In Heat Exchangers  
**Michael Wutz and Steve Mancuso**, ENT 422: Machine Design II

Proteins Associated With Hsp110 In Developing *Drosophila* Embryos  
**Rujing Wen**, Masters Biology

Python Or Javascript? You Decide  
**Alex Hazlett and Shawn Dunn**, CIS 435: Programming with Python

Second Chance: The Application of Recycled Material In Furniture Design  
**Kelly Caruso**, Wood/Furniture

Social Responsibility Is the New Pink  
**Kit Sombke**, FTT 450W: Issues in Apparel and Textile Industry

Socioeconomics and Teen Pregnancy: The Missing Pieces To Tackling Teen Pregnancy  
**Divine Sebuharara**, HEW 411W: Critical Issues in Health and Wellness

Tag Attachment For Ball Joints At Advanced Thermal Systems  
**Richard Baumann and Richard Simonetti**, ENT 422: Machine Design II

To Spray Or Not To Spray: Pesticide Use In the Production of Cotton  
**Kendra Folsom**, FTT 450W: Issues in Apparel and Textile Industry

Tryptophan-Scanning of the Amino Terminus of Connexin32  
**Amy Bednarek**, BIO 314: Advanced Cell Biology

The Use of Computer Games To Enhance Student Achievement In Mathematics Based Instruction  
**Meghan Hooks**, EDU 651: Research, Theory, and Practice in Mathematics Instruction

The Use of Microsatellites As a Means To Study the Population Structure of the Eastern Hellbender Salamander, *Cryptobranchus alleganiensis alleganiensis*  
**Sarah Chudyk**, Masters Biology Secondary Education

Using Python To Program Yahtzee  
**Henry Prutsman and Austin Lee**, CIS 435: Programming with Python

Video Game Design In Python  
**Walter Promowicz II**, CIS 499: Independent Study

Western Boundary Current Simulation Using a Differentially Heated Rotating Annulus  
**Annabelle Wardzala**, Earth Sciences

## **Session VIII: 3:30 p.m. – 4:30 p.m.**

### *Presenting:*

Acid-Base Indicators and the Spring Production: Chemistry - Theater Collaboration  
**Joshua Churik**, Biology

Ball Valve Pressure Testing  
**Richard Simonetti and Richard Baumann**, ENT 422: Machine Design II

The Colorless, Odorless, Tasteless Compound That May Be Targeting Athletes Across the Nation  
**Leah Knot**, Health and Wellness

Compensate For Condensate: Removing Water Vapor From Centrifugal Air Compressors  
**Scott Bender, Kevin Sayers, and Jerry Benbenek**, ENT 422: Machine Design II

Cyclone Separators  
**Stephen Kosinski**, ENT 422: Machine Design II

Dance: The International Language of the World  
**Chelsey Broderick**, INE 390: China Dance

Design of a Rack System For a Solar Panel  
**John Wilson**, ENT 422: Machine Design II

Effects of On-Campus Storm Water Mitigation Efforts To Scajaquada Creek  
**Jerome Krajna, Alyssa Russell, and Ashley Williams**, GES 460/529: Environmental Field Methods and Analysis

Fabrication of a Microfluidic Device Containing Multiple Parallel Channels For Fluorescence Sensing  
**Brandon Sligh**, Chemistry

Facing the Music: How Music Affects the Human Brain  
**Anna Dinger**, HON 400: All College Honors Colloquium

Family: Portraits In High Dynamic Range  
**Joshua Coty**, HON 400: All College Honors Colloquium

Fashion of Interaction: An Exhibition of Culture Behind the Mask  
**Kyrstin Wojda**, FAR 343: Advanced Sculpture

The House of Blue Leaves: The Design of Many Colors  
**Erika Frase**, **Lakia Lewis**, **Rachel Wach**, **Jesse Tiebor**,  
 and **Shatara Brooks**, THA 234: Theater Design and  
 Technology

An Introduction To Business Intelligence Using Microsoft SQL  
 Server 2008  
**Murray Richburg**, CIS 442: Advanced Systems  
 Applications

The Marriage of Materials  
**Jacquelyn O'Brien**, FAR 343: Advanced Sculpture

Modeling of Multi-Phase Flow In Volcanic Conduits  
**Alyssa Cederman**, Physics Secondary Education

Moving Metal: Artisan Gas Forge Construction  
**Glen Stewart**, Sculpture

Networking From the Grave: Letterheads and Business Cards  
 Designed For Famous Dead People  
**Victoria Palmiotto**, COM 495: Project

Optimizing Check Digit Systems  
**Joshua Terhaar**, HON 400: All College Honors  
 Colloquium

Petrographic Analysis of the "Log-Jam" Schist, Connecticut  
**Kelsey Murphy**, Geology

Preliminary Findings On the Correlation of Volcanic Ash, Santa  
 Ana Volcano, El Salvador  
**Mark Tate**, Earth Sciences

A Risk-Based Approach To Environmental Policy: Shortcomings  
 In Legislation and Risk Assessment of Environmental Impacts  
**West Cassenti**, Earth Sciences

Simple Flow Visualization Techniques For Rotating Fluids  
**Natalie Alvut** and **Michael Ludwick**, GES 499:  
 Geophysical Fluid Dynamics Lab

Skin, Muscles and Bones Oh My: The Artistic View On the  
 Human Form  
**Kevin Whalen**, Painting and Sculpture

Solar Water Heating In Buffalo?  
**Marcus Samerson**, Electrical Engineering Technology,  
**Sheldon Anderson**, Electrical Engineering Technology, **Victor  
 Rivera**, Mechanical Engineering Technology and **Christopher  
 Holzmann**, Mechanical Engineering Technology

Stella McCartney and Sustainable Fashion:  
 Can you SUS STAND It?  
**Gabriella Paternoster**, FTT 450W: Issues in Apparel  
 and Textile Industry

Stinking Rose: Garlic As Cure Or Con?  
**Hollis Ann Busch** and **Michael Christ**, NFS 330:  
 Seminar on Complimentary and Alternative Nutrition

Sudoku: Reinvented  
**David Benko** and **Steve Stoveld**, CIS 435:  
 Programming with Python

Swaging Process For a Brazed Heat Exchanger  
**Michael Wutz** and **Steve Mancuso**, ENT 422:  
 Machine Design II

Tift Nature Preserve Soil and Water Analysis  
**Annabelle Wardzala**, **Josh Vernold**, and **Brice Reed**,  
 GES 460: Environmental Field Methods and Analysis

Tourmaline In Relation To the Sebago Pluton Contact Zone In  
 Sebago, Maine  
**Maxwell Hain**, Geology

Using Our National Parks As a Means To Study the Geologic  
 History of the United States  
**Steven Dillsworth**, Earth Science Secondary  
 Education

Water Quality Analysis In Murder Creek  
**Joseph Halleck**, GES 460: Environmental Field  
 Methods and Analysis

Xylem Griffin Automation  
**Greigh Gruarin**, ENT 422: Machine Design II



## **Julia Bottoms**, Painting

Faculty Mentor: Professor Carol Townsend, Design

Abstract Title: **Faces On the Tree: Exploring Heritage Through Portraiture**

Julia will graduate in May 2012 with a B.A. in Art. After graduating, she plans to pursue her studio practice endeavors that include illustration. She also is considering continuing her studies at the graduate level.

For her research, Julia documented her lineage through portraiture. Initially, she explored her sense of identity by interviewing and photographing local relatives on her Greek as well as her African-American side. She then traveled to Franklin, Virginia to immerse herself in her African-American culture. Upon returning to Buffalo she finalized her series of portraits.



## **Anthony Bruce**, Fashion and Textile Technology

Faculty Mentor: Professor Holly Henderson, Technology

Abstract Title: **Into the Loop: Explorations In Fashion Knitwear**

Anthony graduated in December 2011 with a B.F.A. degree in Fashion Technology and a minor in Fiber Design. Tony was a member of the American Green Team, finalists in the national competition "Trimming the Waste of Fashion". Anthony plans to pursue a career in fashion design with a focus on knit fabrications.

As part of his research, Tony attended a two weeklong training workshop on Computer Aided Design for knitwear techniques hosted by the Shima Seiki Corporation in Wakayama, Japan. Tony researched sustainable materials used in the knitwear design process, created a portfolio of garment designs utilizing advanced zero-waste knit technology and explored possibilities of bringing fashion manufacturing back to America. He plans on further using this research to co-author a book on the interpretations and contemporary applications of knitwear techniques and whole garment technology.



## **Kelly Caruso**, Furniture Design

Faculty Mentor: Professor Jozef Bajus, Design

Abstract Title: **Second Chance: The Application of Recycled Material In Furniture Design**

Kelly will graduate with a B.F.A. in Furniture Design and Woodworking. After graduation she plans to continue her study of furniture at The Danish Design School in Copenhagen, Denmark. She hopes to continue promoting the practice of green design in her future endeavors.

Kelly studied the application of using recycled materials in building furniture. She was inspired and motivated by the current environmental issues of today to explore different materials and research how they could be manipulated. Using several techniques and methods from her furniture and fiber design background, she took donated and found materials and applied them to her design. Her goal is to continue those practices in the future to build functional furniture that is still contemporary.





### **Devon Cozad**, English Literature

Faculty Mentor: Professor Lisa Berglund, English

Abstract Title: **Franchised Folklore: Exploring Beauty and the Beast In Modern America**

Devon will graduate with a B.A. in English literature in May 2012. Afterward, she plans to pursue a doctoral degree and hopes to become a college professor.

For her project, Devon explored how modern America understands the fairy tale “Beauty and the Beast.” After examining the history of the tale and its recent adaptations, Devon is now pursuing the connection between modern media adaptations and associated physical merchandise. This connection she has called “franchised folklore,” arguing that while we continue telling the tale of “Beauty and the Beast,” modern readers also want an actual piece of the story to carry with us always.



### **Anthony Delmont**, Physics

Faculty Mentor: Professor Ram Rai, Physics

Abstract Title: **Growth and Low-Temperature Optical Studies of HoMnO<sub>3</sub> Thin Films**

Anthony will graduate with a B.S. degree in Physics in May 2013. He is a member of the American Physical Society and the Vice President of the Buffalo State Physics Club. After graduation, he plans to earn a Master's degree in physics.

Anthony's research focused on the growth and characterization of multiferroic thin films, such as HoMnO<sub>3</sub> (holmium manganese oxide). He developed a method to deposit the high quality HoMnO<sub>3</sub> thin films on single crystal sapphire, quartz, and LiNbO<sub>3</sub> substrates using the electron-beam evaporation system. He also investigated the low temperature optical studies of HoMnO<sub>3</sub> thin films to understand the electronic structures and spin-charge coupling process. Anthony found that the growth parameters play an important role to tune the physical properties of the thin films.



### **Jonathan DeMay**, Engineering Technology

Faculty Mentor: Professor Stephanie Goldberg, Technology

Abstract Title: **Design of a Remote-Controlled Friendly Feline Enclosure**

Jonathan DeMay will be graduating in May 2012 with a B.S. in Engineering Technology, Smart Grid option. He already holds a Bachelor's degree in Mathematics.

Jonathan's research involved the design of a friendly feline trap with a remote-controlled door. He designed an embedded microcontroller system that allows a user to position the enclosure door via a wireless control knob. The user may choose an automatic mode in which the door closes when a sensing system detects the cat inside the enclosure. He constructed a functional prototype based on feedback from a feline rescue expert. Jonathan would like to consider development of the functional prototype to a final product design. Jonathan represented Buffalo State at the SUNY-wide “Discovery: An Undergraduate Showcase” held in the Legislative Office Building in Albany, NY in February 2012.



### **Susan Duval**, Art History

Faculty Mentor: Professor Frances Gage, Fine Arts

Abstract Title: **Art and Healing: A Leap of Faith?**

Susan Duval will graduate with a B.A. in Art History in June 2013. After graduation, Susan plans to continue her study of art history and to obtain a curatorial or research position at a museum of Italian Renaissance art.

Susan's research project addressed the degree to which Italian painting of the fifteenth through seventeenth centuries was perceived to possess healing qualities. Susan conducted first-hand study of paintings in the churches and museums of Rome and Florence, from which she compiled a large database of images that addressed the subject of health and illness and that were meant to facilitate healing. In addition she produced an extensive paper, investigating the various healing mechanisms of religious paintings and landscape paintings, which she discovered offered divine protection to their beholders and/or soothed the mind and spirit through their aesthetic qualities.



### **Valerie Fleischauer**, Chemistry

Faculty Mentor: Professor Jinseok Heo, Chemistry

Abstract Title: **Fabrication of Microwell Array For Studying Single Cell Volume Regulation**

Valerie is a Chemistry major expecting to graduate in Summer 2013. She plans to attend graduate school after obtaining her B.S. degree in Chemistry.

Valerie's summer research has been involved with developing single cell microwell array for studying cell volume regulation at single cell level. The development of this device is important for understanding the cell regulation mechanism better and more efficiently, which will help cure diseases caused by abnormal regulation of cell volume. She successfully fabricated the array using two different approaches that employed self-assembled monolayer of polystyrene microbeads and photolithography, respectively. Valerie's results will be presented at a regional or national conference of the American Chemical Society.



### **Alexander Ford**, Dietetics

Faculty Mentor: Professor Carol DeNysschen, Dietetics and Nutrition

Abstract Title: **The Physiological Effects of Gatorade Versus Diluted Fruit Juice During Exercise**

Alexander will graduate with a B.S. in Dietetics in May 2012. He is a member of the National Honor Society Phi Upsilon Omicron and was recognized for academic excellence at the 54th Annual Honors Convocation at Buffalo State College. Upon graduation, Alexander desires to attend graduate school at the University at Buffalo and attain a Master's Degree in exercise science. Alexander's ultimate goal is to conduct research in the areas of exercise and nutrition.

For his research, Alexander designed formulas to achieve sodium and carbohydrate concentrations and selected and compared those thought to be most satisfying and tolerable to the participants. He also assisted participants with the exercise portion of the study. Alexander hopes to use this study as a foundation for future research that could lead to the development of alternative natural sports supplements.



### **Elisabeth Gallant**, Geology

Faculty Mentor: Professor Bettina Martinez-Hackert, Earth Sciences and Science Education

Abstract Title: **Interpreting the Eruptive History of El Salvador's Santa Ana (Iamatepec) Volcano Through Detailed Stratigraphic Analysis of Pre-1904 Deposits**

Elisabeth will graduate with her B.A. in Geology in May 2012. Lis plans to obtain her Ph.D. and pursue a career as a volcanologist.

Elisabeth's research involved the analysis of volcanic ash deposit samples collected from the active Santa Ana volcano in El Salvador. She used general and scanning electron microscopy, a laser particle sizer, and various software programs to produce a detailed stratigraphic column of a section of this volcano. These data were used to evaluate the origins and eruption styles of volcanic ash and other eruptive materials. Elisabeth is co-author on a manuscript in preparation for submission to a volcanology journal. Lis presented her research at the American Geophysical Union's fall meeting in San Francisco, CA in December 2011. Elisabeth was invited to present her research at the Council on Undergraduate Research's "Posters on the Hill" session held in the Rayburn Senate Building in Washington, D.C. in April 2012. She was among 74 selected students out of over 850 submitted applications.



### **Maxwell Hain**, Geology

Faculty Mentor: Professor Gary Solar, Earth Sciences and Science Education

Abstract Title: **Tourmaline In Relation To the Sebago Pluton Contact Zone In Sebago, Maine**

Maxwell Hain will graduate with a B.A. in Geology in May 2012. He plans to enter a Professional Science Masters program at the University of Arizona.

Max's research consisted of both fieldwork on rocks in southern Maine and subsequent laboratory work on his field data and collected specimens. As a result of his fieldwork, he produced a geological and specimen map of the northeastern boundary of the Sebago pluton, a 300 million year-old granite body, and in particular the occurrences of the mineral tourmaline in that context. Alongside other undergraduate students' work on geological aspects of this granite pluton, Max's results will be incorporated into a manuscript to be submitted in May for publication in the internationally recognized professional geology periodical the Journal of Petrology.



### **Jaafar Hamdan**, Biology

Faculty Mentor: Professor I. Martha Skerrett, Biology

Abstract Title: **Water Permeability of Junctional Proteins In a Non-Junctional Membrane**

Jaafar will graduate with a B.A. in Biology with Departmental Honors in May 2012. He is planning to pursue a career in the field of medicine.

Jaafar's project involved the expression and analysis of junctional proteins in oocytes isolated from *Xenopus laevis* frogs. After obtaining plasmid DNA containing genes for the junctional proteins Cx26, Cx31, Cx32 and Cx43, Jaafar prepared RNA that was injected into *Xenopus* oocytes. Surprisingly, each protein enhanced water movement across the membrane of single oocytes. For comparison, a known water channel AQP1 was expressed.



### **James Harter**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

Abstract Title: **Exploring a Possible College Drinking Motive: Defiance**

James is a Psychology major who will graduate with a B.A. degree in May 2012. He plans on earning a doctorate in clinical psychology and pursuing a research career.

James gathered data from over 300 underage college drinkers, including their personality characteristics and underlying motives for drinking in order to predict which drinkers are most likely to experience repeated problems. He applied advanced statistical techniques such as confirmatory factor analysis and mediational modeling. His results suggest that a majority of college drinkers report at least some defiance drinking motives and that higher scores on this motive predict more alcohol-related problems. James presented his work at the Society for Research on Adolescence in Vancouver, BC in March 2012.



### **David Huurman**, Printmaking

Faculty Mentor: Professor Anthony P. Gorny, Fine Arts

Abstract Title: **Non-Traditional Bookbinding**

David is in the B.F.A. Printmaking program and plans to graduate in May 2013. David is planning further graduate studies for a M.F.A. Printmaking degree. His artwork has been represented in several New York State exhibitions.

David explored various types of less common bookbinding styles including the Japanese, Coptic, and Caterpillar stitch methods. He investigated uses of unconventional book materials such as Plexiglas. He discovered imagery by literally tying the books together and brought them to the realm of art with intrinsic concepts. His sense of color, composition, and ideas became clearer, transcending the limiting approaches of book arts, bridging them toward sculpture.



### **Leah Knott**, Health and Wellness

Faculty Mentor: Professor Susan Baldwin, Health and Wellness

Abstract Title: **The Colorless, Odorless, Tasteless Compound That May Be Targeting Athletes Across the Nation**

Leah is a Health and Wellness major with minors in Coaching and Women's Studies. She will graduate in May of 2012 and plans to pursue a graduate degree in a health-related field. Leah was the 2011 Undergraduate Health Major of the Year from the Association for the Advancement of Health Education (AAHE) and is the Health and Wellness Association President.

To better understand air quality in ice arenas, Leah's research consisted of collecting carbon monoxide levels, barometric pressure readings and health survey data in a local ice arena. Based on data collected using four carbon monoxide data loggers placed around an ice rink, Leah found that over a two day period nearly 50 carbon monoxide levels exceeded the recommended 50.0 ppm level. She also found that nearly 43% of survey participants answered that they sometimes or often noticed zamboni exhaust fumes while in an ice arena. Future research is planned to study air quality in other ice rinks to ascertain how widespread poor air quality is found.





### **Sarah McNutt**, Ceramics and Art Education

Faculty Mentor: Professor Elena Lourenco, Fine Arts

Abstract Title: **Digging Up the Dirt: Utilizing Ceramic Materials From Your Own Backyard**

Sarah graduated in December 2011 and earned dual B.S. degrees in Ceramics and Art Education. Although she eventually wants to apply her Art Education degree to teaching, Sarah is determined to first focus on her own development and profession as an artist.

For her research, Sarah explored the use of naturally occurring local material for utilization in her ceramic work, as an alternative to processed and nationally distributed clay. She also further developed her interest in incorporating materials from meaningful places and events into her body of artistic work. After digging up, processing, and testing the local clay, Sarah was able to successfully obtain workable and colorful clay to create pieces of artwork that conveyed her ideas about the places they are from. Sarah has had one of her pieces selected for the 2012 National Council on Education For The Ceramic Arts (NCECA) National Student Juried Exhibition held in March 2012 at the University of Washington's Jacob Lawrence Gallery. Sarah represented Buffalo State at the SUNY-wide "Discovery: An Undergraduate Showcase" held in the Legislative Office Building in Albany, NY in February 2012.



### **Brian Nacov**, Painting

Faculty Mentor: Professor Lin Xia Jiang, Fine Arts

Abstract Title: **Naturalistic Pictorial Space To Formalistic Reconstructions: A Search For Direction and Growth As a Painter**

Brian will graduate with a B.F.A. in Painting in May 2012. Afterwards he plans on applying to Buffalo State's post-baccalaureate Art Education program and attending graduate school. Ultimately, Brian plans on teaching art at a high school level.

Brian conducted research on and viewing works made by both traditional pictorial landscape painters and formalistic abstract painters that tend toward landscape subjects. After this initial research, he spent two weeks traveling around New York State painting naturalistic plain air nature studies in state parks. Upon his return to Buffalo, Brian then created a series of abstract, formalistic compositions using the nature studies as a starting point. His goal in this endeavor was to achieve a certain degree of personal growth as a painter in differing styles, as well as create a body of work that could be used in his student portfolio and as a future teaching aid. Brian represented Buffalo State at the SUNY-wide "Discovery: An Undergraduate Showcase" held in the Legislative Office Building in Albany, NY in February 2012.



### **Michelle Sallander**, Ceramics

Faculty Mentor: Professor Robert Wood, Design

Abstract Title: **Making Connections: Metal and Ceramics**

Michelle will graduate with a B.F.A. degree in Ceramics in December 2012. After graduation she plans on furthering her education by pursuing a Master of Fine Arts degree in Ceramics.

For her project, Michelle researched the properties of precious metal clay (PMC) and how to form and connect this material to ceramics. Precious metal clay is powdered metal combined with water and an organic binder and can be formed like clay. When fired, the binder burns away and what is left is solid metal, which behaves like and can be worked using traditional metal forming techniques. Michelle experimented with different methods to attach the two materials including prong setting, glaze adhesion, soldering to glaze, and epoxy.



### **Lena Scapillato**, Metal/Jewelry

Faculty Mentor: Professor Stephen Saracino, Design

Abstract Title: **Chemical Chromism: The Coloration of Metal**

Lena will graduate with a B.F.A. in Metals/Jewelry in May 2012 after which she plans to enter graduate school to pursue a M.F.A. in Metalsmithing. Lena ultimately hopes to pursue her goal to teach at the college level.

Lena's research centered on devising formulas to create patinas for metal surfaces utilizing existing recipes and experimentation with various chemicals to create new formulas encompassing both cold and hot application processes. Her findings are cataloged in a folder that will remain in the Meta/Jewelry studio for future students to access.



### **Allan Sesay**, Mathematics

Faculty Mentor: Professor Peter Mercer, Mathematics

Abstract Title: **An Error Term For Levinson's Inequality**

Allan is originally from Sierra Leone, West Africa. He will graduate with a B.S. in Mathematics in December 2012. After graduation he plans to teach and to attend graduate school. Eventually he would like to become a college professor.

Allan spent the first part of his project studying background material on some of the recent mathematics literature. Using the mathematics software "Scientific Workplace", Allan looked for patterns and trends contained in various complicated examples in an effort to form a conjecture about an error term for Levinson's Inequality. Allan succeeded in finding an error term for Levinson's Inequality. The work has been submitted to the British journal "The Mathematical Gazette" for possible publication as a joint paper.



### **Robin Tedlock**, Geography

Faculty Mentor: Professor Tao Tang, Geography and Planning

Abstract Title: **Analysis of Street Traffic Density Impact On CO<sub>2</sub> and Air Particle Distribution In Beijing, China**

Robin is a Geography major. After graduation, Robin's plans include working for an environmental conservation agency and pursuing a graduate degree.

For his research, Robin traveled to Beijing, China and conducted field measurements of air pollution alongside a team of graduate students and faculty from the Capital Normal University of China. Robin focused on the analyses of CO<sub>2</sub> and ultra-fine particle distributions in relation to interpreted traffic lane density that was calculated using satellite imageries. His research findings suggest while traffic density is one of the major contributors to CO<sub>2</sub> and ultra-fine particle pollution, other major sources may contribute to the pollution concentrations as well.



### **Rebekah Whited**, Psychology

Faculty Mentor: Professor Dwight Hennessy, Psychology

Abstract Title: **The Effects of Driving Personal Space and Personality On Tailgating Behavior**

Rebekah Whited is a Psychology major who plans on graduating with her B.A. degree in May 2013. After graduation, her plans include pursuing a graduate degree in Psychology.

Rebekah's study involved determination of personal factors that impact driver personal space preference. Participants viewed two video clips (one through the windshield of a car approaching another car and the other through a rearview mirror of the car being approach) and stopped each video to indicate their preferred spacing when they drive. Rebekah found that both front and rear space preference were predicted most prominently by the interaction of conscientiousness and driver aggression. Rebekah will be presenting these findings at the Eastern Psychological Association in 2012.



### **Amy Widman**, English Education

Faculty Mentor: Professor Aimable Twagilimana, English

Abstract Title: **Fictionalizing Resistance: Scheherazade and Her Reincarnation In the Modern Arab Novel**

Amy is an English Education major and will graduate in May 2012. After graduating, she plans to pursue a Master's degree in English at Buffalo State and eventually a Ph.D.

Amy's research consisted of a critical investigation focusing on two literary texts, Arabian Nights (One Thousand and One Nights) and Tayeb Salih's novel Season of Migration to the North. She argued that women, facing a very oppressive patriarchal regime, adroitly used fictionalization (storytelling) as an indirect strategy of resistance to abrogate victimization. Specifically, she looked at how women in contemporary literature continue to display Scheherazade's strategy using the example of Sudanese writer Tayeb Salih in his novel Season of Migration to the North. Using feminist theory and concepts from Orientalism, her research focused on how two women deal with male repressive practices.



### **Mark Zdrojewski**, Psychology

Faculty Mentor: Professor Howard Reid, Psychology

Abstract Title: **Mind Or Body: Willingness To Undergo Predictive Medical and Psychological Testing**

Mark graduated with a B.A. in Psychology in December 2011 and is currently a graduate student at the University of South Florida College of Medicine studying Aging and Neuroscience. He is performing research in the field of stem cell therapy for neurodegenerative diseases at USF's Alzheimer's Institute and plans to finish his masters program at USF and enter their medical school in 2013.

For his research, Mark developed his research project to examine what factors are involved in a person choosing to undergo predictive genetic testing. In addition, he explored if these factors differed for medical or psychological conditions. Mark collected data from college students with an original questionnaire designed for the study, and then utilized multiple regression analysis to find personality traits that correlated with a person's willingness to undergo predictive genetic testing. His findings are currently being prepared for submission to a profession journal.



## Arts

### American Folk Music of the 1960s

**Dan Darnley**, MUS 440W: Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

The focus of this presentation is the musical Folk Revival that occurred during the 1960s in the United States. This well-known artistic movement included renowned performers Bob Dylan, Peter Paul and Mary, Woody Guthrie, Joan Baez, Joni Mitchell, and Neil Young, among others. The music was historically influenced by the folk songs of Appalachia, brought to prominence during the early 1900s. This presentation will be based on secondary sources such as scholarly books and journal articles. It will feature audio examples and visual representations, as well as examples of the structure of American folk music. Explained in a way that non-musicians will be able to understand, the discussion will focus on both the historical influences and ultimate significance of this music, from both political and cultural standpoints.

**Presentation Type and Session:** Oral — Humanities III

### Art and Healing: A Leap of Faith?

**Susan Duval**, Art History

Faculty Mentor: Professor Frances Gage, Fine Arts

How widely produced was art that addressed the fears and hopes of those suffering from plague and epidemic disease in Italy in the 15th-17th centuries? To what extent was art believed to be a healing medium? And how efficacious did beholders actually think it was? How was it believed to heal? In my research I set out to investigate the extent to which art was thought to have inherent healing properties. My first step was to compile a database of relevant images from first-hand observation in Italian churches and museums in Florence and Rome. Relevant historical, religious and art historical studies were examined to ascertain the social and religious beliefs held by the population and the methods employed to survive during periods of chronic epidemics such as the Black Plague. This research resulted in the compilation of a manipulative database of relevant art of the period and a research paper addressing the concept that paintings of these two centuries brought about healing in many different ways, and in particular, through devotional practices and methods of observing and appreciating paintings' aesthetic qualities. I discovered that the art produced in this period frequently addressed these ideas and promised healing to viewers.

**Presentation Type and Session:** Poster I

### Beyond the Link

**Stephanie Kahn**, Metals/Jewelry

Faculty Mentor: Professor Stephen Saracino, Design

Chain is often an overlooked element in a piece of jewelry but in reality it is equally if not more important than the piece hanging off of it. The types of chain explored are loop in loop chains, chain mail techniques as well as wire weaving. Loop in loop chains require the fusing of each individual link. This is a process that requires fine silver for its ability to fuse easily. Each process was explored with different wire gauges and the steps were recorded. These techniques will help develop a more cohesive language between the chain and the piece. As a culmination of the process of exploring different chains, a piece of jewelry will be designed and constructed to incorporate the chain visually to the piece.

**Presentation Type and Session:** Poster I

### Bronze and Aluminum Casting

**Zachary Pritchard**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

With my research I explored foundry casting. I used the funding from this grant to purchase various metals and molding materials. My original intent was to focus on bronze and aluminum casting solely, but I also explored casting in iron. I produced all original designs for my pieces as well as further explored my own conceptual development in relation to the processes and materiality of metal casting. My finished sculptures were rarely left as a singular bare metal form; I found I liked to incorporate other materials, such as different types of metal or wood, with my castings to create a context for the forms appropriate to my own personal vision. I also discovered that I like the inherent raw qualities of metals and materials in general. There is an aesthetic that can only be created by a material in its raw, unformed state, and I found that I intuitively connect with that in my own sculptural work. The end product of this research was the creation of a new body of sculptural work, included in my portfolio, which has been used in my application to numerous national graduate programs for Sculpture.

**Presentation Type and Session:** Poster II

### Channelling Space: A Sculptural Installation

**Rachel Wright**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

For a solo installation titled, "Channeling Space," I transformed the Margaret E. Bacon gallery in Upton Hall into a dramatically different space that separated the interior from the exterior. I wanted to challenge the habitual understanding of this gallery and renegotiate possibilities of the space. From



the inside of the building, the exterior of the piece was blocked by the architectural frame work of my installation, which opened up flush with the gallery door, leading you into the interior of the piece. This intimate tunnel of space, offset not only the efficiency of the original room, but also presented new demands for movement such that one needed to remain a conscious participant while they navigated their way through the internal maze of the piece. Looking into the gallery windows from the outside of the building, the viewer could only see the exterior of the form, the architectural framework of the installation, which played with the notion of public and private. I did not intend to force upon the participant any conceptual narratives, but instead, to provoke a dialogue through the basic elements of movement, gesture, the material and its relationship to the form as well as tension created by one's place within space. I am interested in the viewer's passage through space and the ephemerality of certain artistic forms. Most of my work is temporary and short lasting, either because of its inevitable material decay or because it is installed in a space for which there is a specific time limitation. Time, as such, becomes a conceit in my work, a metaphor for ephemerality that governs my forms and, at the same time, a literal reality. In some ways, one's interaction with my work actually mirrors the passage-like process by which I create and then demolish it, disconnecting it from that brand of sentimentality that looks to perpetuity for safekeeping.

**Presentation Type and Session:** Poster II

## Chemical Chromism: The Coloration of Metal

**Lena Scapillato**, Metal/Jewelry

Faculty Mentor: Professor Steve Saracino, Design

Patination is a process where you alter the surface of a metal. Through various hot and cold processes, different patinas occur. I explored these methods, and observed how the metal reacted to the processes. Within each process, different chemicals are used. These chemicals range from household solutions such as ammonia and vinegar to chemicals such as hydrochloric acid and cupric nitrate. Not only were different chemicals used, but I also experimented with a variety of application processes. Each sample of metal went through a tedious progression of labeling, sanding and cleaning. Patinas were practiced on each sample. I thoroughly recorded each step I took in making every sample piece. With the use of each patina, I created a plethora of colors and textures on metal. Some recipes had more successful outcomes than others but overall I have endless chromatic metal samples.

**Presentation Type and Session:** Poster I

## Chromatic Modification In Sergei Prokofiev's Symphony No. 5, Op. 100

**Abigail Spoth**, MUS 303W: Music History 2

Faculty Mentors: Professor Marc McAneny, Music and Professor Carolyn Guzski, Music

In his Symphony no. 5 in B-flat Major, op. 100, Sergei Sergeyevich Prokofiev (1891-1953) challenges traditional musical idioms with the technique of chromatic modification, altering chord tones by a semitone (the smallest notated interval between pitches in Western music) to achieve new harmonic sonorities that define his idiomatic dissonant texture. This technique creates a system in which the composer's sonic conception, while not unequivocally tonal (or centered around a particular pitch, or tonic), operates within a tonal framework and is, at the structural level, only a step or two removed from traditional tonality. Prokofiev's sound world, as defined by this new technique of chromatic modification, is potentially problematic in its deviation from strict common-practice tonality; the political climate in the Soviet Union during the Stalinist era made innovation difficult, if not dangerous. Works were declared either shining examples of "Socialist Realism" or denounced as insidious "Formalism" by censors employing an ill-defined (if even existent) definition of both styles, making it difficult for composers to know what exactly the political standards for music were. To satisfy both the authorities and his own drive for innovation, Prokofiev mitigates the potentially jarring nature of his musical style in Symphony no. 5 by anticipating the novel sonorities with either the new pitch itself or its sonic register or timbre. This presentation will be an exploration of these subtly dissonant instances using audio examples and score excerpts, with some attention given to the quietly subversive nature of the music given the political climate.

**Presentation Type and Session:** Oral — Humanities III

## Cups of Fire

**Robert Sturgess**, Ceramics

Faculty Mentor: Professor Darien Johnson, Design

The Clay Gallery, a small cooperative gallery located in Ann Arbor, Michigan, featured an exhibition called Cups of Fire. This nationally juried exhibition was solely for cups and juried by Susanne Beiner, an up and coming ceramic artist. I submitted a small cup titled 'Finger Cup' that was accepted into the show. My cup was one of 169 cups accepted out of a total 313 cups that were submitted. I was afforded the amazing opportunity to attend the opening reception and network with artists that are working in my field as well as talk to some of the artists that are a part of the Clay Gallery Cooperative. 'Finger Cup' began with a simple cup form thrown on the wheel with a few sculptural elements such as a finger and an eyeball on the outside, and a fingernail on the inside. For surface treatment I chose to use a green glaze that varies in color saturation from dark to light green with a nice red on the inside and fired it to cone ten (2,345° Fahrenheit) in a reduction atmosphere (reduced oxygen level). For the eyeball I used a ceramic technique

called china painted where small glass particles are fused to a glaze in a low-temperature firing.

**Presentation Type and Session:** Poster III

## A Cut Above

**Lena Scapillato**, Metals/Jewelry

Faculty mentor: Professor Tara Nahabetian, Design

In this exploration, I utilized the software programs Rhino CAD and Adobe Illustrator to design three-dimensional objects for the process of laser cutting. The combination of computer software and the laser cutting process allowed some of the work to be done by machine. Using the laser cutter in the Technology Department allowed me to see the process in action. Viewing the machine in action made it easier to problem solve and design. Using images of parasites as a visual resource I developed designs for a series of earrings and a wall piece. By reducing the images to form, shape and pattern I alter the perception of my resource from unappealing to beautiful. I started each project by drawing the designs by hand, scanning them into the computer and then tracing them into Adobe Illustrator. Once the digital file is complete, it is sent to the laser cutter. Although laser cutters can cut a large variety of materials, I chose to use steel and acrylic. Laser cutting can speed production of work, decrease the amount of physical labor and allow designers to change the size of their work. I plan to present a detailed poster that contains images of my research, samples and finished work.

**Presentation Type and Session:** Poster II

## Dance: The International Language of the World

**Chelsey Broderick**, INE 390: China Dance

Faculty Mentor: Professor Joy Guarino, Theater

The question I am posing is does culture, education, and history influence dance in China as compared to the United States of America. I will be addressing three parts including how American and Chinese vernacular differ, how dance is incorporated in education, and how sites in Beijing and Buffalo, that represent a part of history, make for a meaningful performance space. Chinese dance has been around decades before a written or spoken language was in use and centuries before America had been discovered. Dance is an art of space and time that incorporates abstract motion reflecting shapes and patterns while exhibiting feelings, states of mind, and narratives. Through video I have been studying how the movements and spatial patterns of Chinese dance contrast to that of American movements. Chinese dance reflects history by including military and civilian movements pertaining to rituals and aspects of everyday life. Various journal articles have mentioned that children in elementary schools throughout China study traditional folk dances as part of their curriculum. Dance and movement have been such a part of their history that gestures carry specific meaning, such as a time of

war or peace. Credited articles in databases state that there is only one dance institute in all of China, The Beijing University Dance Institution. The United States in comparison has dance institutes all over the country. My presentation will demonstrate contrasts and comparisons of the vernacular influence and educational dance curriculum of China and the United States, while considering historically significant places in which to perform. I will continue my research when traveling to Beijing, China in late May; journaling my experiences and bringing back a culture that I can share with my department and utilize in my work as a teacher.

**Presentation Type and Session:** Poster VIII

## Digging Up the Dirt: Utilizing Ceramic Materials From Your Own Backyard

**Sarah McNutt**, Ceramics and Art Education

Faculty Mentor: Professor Elena Lourenco, Fine Arts

For this research project I wanted to explore the possibility of using naturally occurring local material for utilization in my ceramic work as an alternative to processed, store bought clay. I was interested in researching local clay bodies and was encouraged to pursue this with the understanding that New York State has a high clay soil content. It seems that even in economically hard times, people still do not realize that they can take advantage of the natural resources around them. I recognized that I had an opportunity not only serving multiple advantages to my own work, but one that I can share with others as well. After various sampling and testing, I discovered a good source of natural materials that are free for the taking, that can help promote green living by lowering the demand on the shipping of clay materials, and that can be shared with all regional clay artists. As I also have an ongoing interest in incorporating material from personally meaningful places and events into my body of work, this research project was a great opportunity to add a whole new level of depth to my ceramic sculptures. After digging up, processing, and testing the local clay bodies I was able to successfully obtain workable and colorful clay to create pieces of artwork that conveyed my ideas about the places they came from.

**Presentation Type and Session:** Poster V

## Don't Judge a Symphony By Its Composer: Progressivism In Music of Brahms

**Samantha Arcara**, MUS 303W: Music History 2

Faculty Mentor: Professor Carolyn Guzski, Music

The German Romantic composer Johannes Brahms (1833-1897) spent fourteen years composing and scrutinizing drafts before completing his Symphony no. 1 in C minor, op. 68. Anxiously awaiting the premiere, the public was split into two opposing artistic factions: those who favored "the academician, the classicist" Brahms, and those who preferred "the progressive, the innovator,"

Richard Wagner. Building on musicological studies of this era, as well as score analysis, I argue that this view is too black and white. A progressive composer is considered a great innovator in the realm of musical language. Specifically in the final movement of this symphony, Brahms's love and knowledge of Bach and Viennese classical composers is apparent through elements of baroque and classical influences in his work. Though quite different in technique than Wagner, Brahms is progressive in his own way. Intricate motives and textures create a chamber-music quality in this movement. An innovative structural form, rich harmonic language, artfully spun themes and use of the technique known as 'developing variation' is also present. Through musical examples and commentary, I will demonstrate how Brahms is able to stylistically combine both old and new.

**Presentation Type and Session:** Poster III

## The Dramatic Side of Wedding Dances: The Sicilian Tarantella

**Paul Loweecey**, MUS 440W: Ethnomusicology  
Faculty Mentor: Professor Carolyn Guzski, Music

The Tarantella is a common dance in Italian weddings. With its iconic melody it is one of the most famous songs to ever come out of Italy's pop culture scene. Like the many different regions of Italy, the song has many different variations, as well as the dance. Like the Jewish song Hava Nagila everyone joins in this dance. I will research this through books, JSTOR, audio examples, and aural history from family members. In Tarantella, men and women trade dance partners quite often. The women all hold tambourines as they dance to the band's rendition. While each region has different variations of the song and dance, each variation defines its region of origin. The basis of the dance was believed to stop a person, who was bitten by a tarantula or wolf spider, from dying, the frenzied dancing was to prevent hysteria from the poisonous bite of the spider. While this has been proven false, the dance has lasted throughout the years, and has become the song that man people associate as "Italian" music. My poster will show pictures of the dance and have a short transcription of the melody and, the traditions and dance moves that correlate with the music from the Sicilian region. My goal is to give the reader a broader understanding of Italian music that isn't viewed as classical.

**Presentation Type and Session:** Poster IV

## Explorations In Soft Furnishings

**Kelly Caruso**, Wood/Furniture and **Erin Curry**, Fibers  
Faculty Mentor: Professor Sunhwa Kim, Design

This project began with our interest in merging two traditional crafts: textile design and furniture design. We sought to create an opportunity to learn and explore a facet of design that was not taught as part of our individual programs. Our inspiration grew from the collaborative ideals set forth in the Bauhaus school, where

students were encouraged to explore non-traditional methods of design and construction. Considering these 20th century modernist aesthetics, we aspired to combine those qualities with our contemporary styles. The design process began with preliminary sketches of three furniture pieces and corresponding upholstery pattern designs. The collection includes a chair, a loveseat and an ottoman with coordinating upholstery fabric in three-color ways. Creating models and effective color ways brought us to our final designs. We researched upholstery techniques and utilized them to apply the pattern designs with traditional woodworking methods. Working closely from the conceptualization to the actual realization of each individual piece was integral to the success of this project. Our goal, as designers, is for our work to be viewed not only as objects of decoration, but also with an emphasis on functionality. Together, textiles and wood achieve a greater awareness of beauty and function.

**Presentation Type and Session:** Poster I

## Exploring the Human Body

**Ian Carr**, FAR 343: Advanced Sculpture  
Faculty Mentor: Professor Elena Lourenco Sculpture

The way our bodies are constructed fascinates me, which is why I have chosen it to be my main focus of study in the art world. Being inspired by the great masters of the renaissance, I aspire to understand the human body as well as my materials as they did. I intend to achieve this deep understanding of how the human body functions by exploring its forms via sculptural studies. These studies will be very tedious and thorough, forcing myself to learn how we look and move as humans. After creating various body sections in different scales and materials, I will construct a dramatic pose, to life scale. I will begin by working from the inside out, first creating a welded armature or skeleton in steel re-bar. After this I will build and carve the interior structure in plaster. This step is crucial to understanding the layers of muscles, organs, and joints. Each area will have high detail that is where the most learning of the body will occur. The final thin layer will be applied with an oil-based clay. This material has high workability and will grant me the time needed to finish the piece to a realistic look. This "skin layer" will contain high detail while still giving hints of the defining information that lies beneath. I hope that those who view my work will be reminded of traditional figurative work, but also share my passion for understanding how complex and beautiful the human body can be.

**Presentation Type and Session:** Poster III

## Fabrication of Glass Cabochons

**Stephanie Kahn**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Stephen Saracino, Design and Professor Andrea Guiati, Director, All College Honors Program

The research conducted explains the process of creating hand made glass cabochons. It resulted in a deep understanding of a

number of different glass fabricating techniques. The resulting visual effects achieved by experimenting with various colors and firing temperatures were ascertained by careful heat control throughout this project. Utilizing materials such as silver leaf, mica powder, translucent, opaque, diachronic glass as well as frit size were investigated resulted in a range of solutions that produced varying results both exciting and at times disappointing. Applying this knowledge, I designed and fabricated a cabochon “glass stone” and then metal piece for the cabochon to be set within. Incorporating handmade glass into a fabricated metal piece afforded me an opportunity to open many more avenues of creativity and allowed for the entire jewelry piece to be planned, designed, and executed without having to rely on the more conventional manner of purchasing the “stone” from a catalog. Because I had technical and aesthetic control start to finish with both the “stone” and the jewelry object it was placed, the resulting piece is unique in every respect. It is an area of investigation any artist would be happy to enjoin offering creative solutions in a decorative arena oft flooded with commercial-only considerations prevalent in our industrialized world.

**Presentation Type and Session:** Poster III

### **Faces On the Tree: Exploring Heritage Through Portraiture**

**Julia Bottoms**, Painting

Faculty Mentor: Professor Carol Townsend, Design

A person's heritage is an intangible treasure, one that is handed down in blood; a shared facial feature, a unique family quirk. The research I am presenting has explored my own lineage in a rather unorthodox way. Through an Undergraduate Summer Research Grant, I have been able to explore portraiture as a means of documenting my heritage. My research began back in June when I met and interviewed local relatives, asking questions about their lives, as well as the lives of others on our family tree. I interviewed members from both my Greek side as well as my African-American side. From there, I created a series of portraits of selected family members. Each portrait serves as a window into their lives, expressing not only a sense of who they are physically but also emotionally with each piece containing some element of the person's unique personality. My research eventually led me to Franklin, Virginia where I spent the week photographing my African-American family and immersing myself in their culture and lives. The more technical aspect of my research included the exploration of new materials and methods. Originally my portraits were created with colored pencil and chalk pastel. Through my research, I have begun to include an acrylic base and acrylic backgrounds for a more “painterly” effect. Also, I have continued an exploration of hand burnishing techniques.

**Presentation Type and Session:** Poster VI  
Exhibit in the Mezzanine Level

### **Facing the Music: How Music Affects the Human Brain**

**Anna Dinger**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Jose Henriques, Music

The title of my presentation pertains to both musical performance and the act of simply listening to music. The starting point of my research derives from Daniel Levitin's book, “This is Your Brain On Music”. It is well documented that music has an impact on the brain. Research in cognitive neuroscience tells us that human beings respond to aspects of music such as pitch, melody, rhythm and tonality. In the first phase of my research, I am presenting some background information to provide a framework of what already is known in this field. In the second phase of my research, I will compose a number of news stories that cover the subject of music and the brain. To augment my literature review, I will interview professionals in the field of neuroscience. This scholarly project will enable me to apply journalistic techniques to communicate to a general audience the neuroscience research being conducted on the affect of music on the brain.

**Presentation Type and Session:** Poster VIII

### **Family: Portraits In High Dynamic Range**

**Joshua Coty**, HON 400: All College Honors Colloquium

Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

High Dynamic Range (HDR) is a photographic technique in which multiple exposures of the same scene are shot at varying exposures. These exposures range from underexposed and nearly black, to greatly over exposed and blown out. These images are then condensed into a single image and then tone-mapped. This gives the images a unique look and texture. The darkest darks and the lightest lights are exposed normally, creating an image where both shadows and highlights contain great detail. These photographs look like they are paintings or made by computer graphics because the human eye does not see such detail in nature. HDR is typically only used for landscapes and cityscapes due to the numerous exposures needed in order to create a final image. It is not typically used with portraits because people tend to move and even the slightest motion can cause ghosting and blurring. However, I became fascinated with using HDR in portraits. It is not practical, nor conventional to use HDR for portraits, however if it is done correctly the results are stunning. I decided to photograph the members of my immediate family in intimate environments; workshops, bedrooms, studies, and other various environments to capture a more private side of their everyday life.

**Presentation Type and Session:** Poster VIII



## Fashion of Interaction: An Exhibition of Culture Behind the Mask

**Kyrstin Wojda**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

Spiritual imbalance in present-day America greatly influences the development of my artistic voice. I spend too much time defining and redefining the boundary between what people consider 'rational' and 'irrational' and work to develop a body of work to reveal this understanding. Through direct experience and interaction, my goal for this exhibition is to create an environment that allows the audience to perceive culture from a nonjudgmental standpoint while exploring human sensation. With that, raw subject matter and simple aesthetics will reflect the intimately complex role of human nature. I want people to question themselves rather than readily questioning others. Through the use of video documentation, performance, and sculptural dimension, the viewer will focus on a reality with little verbal communication. Culture behind the mask has been an important subject in my life since everyone wears a mask no matter how ordinary it may seem. It is important to understand the reality of complex individuals all wearing these 'masks'. With that, I will emphasize this idea and expose viewers to a side of life that isn't make believe- but is happening within.

**Presentation Type and Session:** Poster VIII

## The Female Form: Painted In Oil Before Translating Into Sculpture

**Alison Spongr**, Painting and Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

For my project I decided to focus on observing the female form and creating paintings and sculptures based on that information. While studying fine arts at Buffalo State College, I have discovered an interest in the human form. In this project, I am pursuing this further by creating paintings on canvas of the female form painted from life. I have been concentrating on the environment the model is set in as well as the pose and gesture of the model. These paintings will give me an experience of the whole process of painting from life using elements of my own personal experiences and visions. During this process I will create sculptures using the understanding I develop of the environment and poses from the paintings. The sculptures will be more abstract and I will be using specific elements of the paintings in the sculptures. My project is meant to focus on the whole process of painting from life and the use of multiple materials to convey the abstraction of the female form painted from life.

**Presentation Type and Session:** Poster V

## Finding Your Roots: Put That In Your Bagpipe and Smoke It

**Ariel Bauerlein** and **Brianna Corgel**, MUS 440W:

Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

Traditional Celtic music plays a significant role in Irish culture and history because of the strong oral-musical tradition of the country. It also provides an important link to those of Irish descent with their roots, as Celtic music is tied to the importance of diaspora in Irish history. Many different ethnic groups have been uprooted and lost touch with their traditions; Celtic music can restore a historical connection that was lost because of imperialism. Our research findings are from scholarly journal articles and books, and musical analysis. The use of a heptatonic (7-tone) pitch collection, instruments such as the Celtic harp, bagpipes, fiddle, bodhran, and tin whistle (chordophones, aerophones, and membranophones) are familiar to lovers of this style. Modern Celtic music now links the instrumental technology of today with the traditional musical language, bringing its appeal to a wider audience, including people in search of their roots. Our presentation will combine this historical discussion with a musical transcription of a traditional Celtic song, supplemented by visual materials that show the vibrant culture of Ireland.

**Presentation Type and Session:** Poster III

## Geisha's Melody: Traditional Music of Japan

**Kevin McGrath**, MUS 440W: Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

Traditional folk music of Japan has had a major impact on the musical world today, both globally and in Japan. Influenced predominantly by Chinese music (similar to the ways in which Japanese culture is born of Chinese influence), Japanese music stands out even amongst Asian music as uniquely important. I will examine the music for its influence on traditional Japanese culture, in particular, the geisha tradition of shamisen music, as well as the performance tradition of taiko drumming. My research sources are scholarly books and articles, as well as my own musical analyses. My presentation, targeted towards those with little or no formal musical background, will include a cultural exploration of geisha culture, its music, and its impact on both Japanese folk and modern music. I will supplement my oral discussion with iconography, audio-video examples, and an explanation of my musical transcription of a song typical of the style.

**Presentation Type and Session:** Oral – Humanities III

## **The House of Blue Leaves: The Design of Many Colors**

**Erika Frase, Lakia Lewis, Rachel Wach, Jesse Tiebor,** and  
**Shatara Brooks**, THA 234: Theater Design and Technology  
Faculty Mentor: Professor Ann Emo, Theater

Many look at a play as just a story, perhaps providing the reader with a personal message or meaning. As artistic designers, it is our responsibility to implement all of the elements and principles of design to give the viewer more than just a story; it is our responsibility to give life and dimension to the show. However, what is often overlooked is the extensive amount of effort, detailed research and most of all, collaborative creativity that is put forth into transforming text into reality. Many methods of research can be applied to designing a production such as textual research, using specific visuals in order to grasp a better concept of a potential design and even using sound to further develop an idea. Incorporating all of these aspects of creativity and design holds true to making a show an inspiring, symbolic and unforgettable production.

**Presentation Type and Session:** Poster VIII

## **In the Making: The Production of the Short Film In Reprisal**

**Sean Tresmond**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Daniel L. Rera, Communication and  
Professor Andrea Guiati, Director, All College Honors Program

As a student filmmaker, my interests lie not only in the final cut of a film, but in everything that went into its creation. I am currently in the late pre-production stage of a short film, *In Reprisal*, which I am writing, producing, and directing. It will be in various stages of production throughout the semester until its premiere in late spring. It is a revenge film about a man whose brother is killed for mysterious reasons during a drug deal. It will explore themes of brotherhood and the concept of "gray morality" as opposed to the more widespread use of absolute good versus absolute evil. The film itself will make unique usage of both editing and storytelling. My project will chronicle the pre-production and principle photography of this short film through production stills, promotional one-sheets, script excerpts, a production log, and supplemented by a video looping through dailies or an early cut of the film. It will give people a closer look at what goes into producing a short film, the mistakes that are made, and the happy accidents that may stem from them. The actual final cut will be premiered at the Television and Film Arts (TFA) Film Forum.

**Presentation Type and Session:** Poster V

## **Inspired By Nature**

**Leigh Johnson**, FAR 343: Advanced Sculpture  
Faculty Mentor: Professor Elena Lourenco, Fine Arts

I have always been interested in the natural world and am constantly inspired by it. The connection between humans and the natural environment, as well as the natural processes that occur is of

great interest to me for the span of my artistic career. I am captivated by the cycle of life in the animal world. I have been thinking a lot recently about various parts of animals and their uniqueness throughout the animal kingdom. The diversity of colors, patterns, textures, shapes, and forms never ceases to amaze me and inspire me. I hope to carry these ideas over into my work and represent this diversity. I want to show the constant change and natural evolution that is so evident in the natural world. My current work is largely based upon these observed responses of the living world to environmental changes and is inspired by a continued interest in the relationships found in nature. With my experience working with naturally occurring materials such as, rawhide, clay, sinew, wool, wood and various others, I hope to create a collection of specimens, artifacts, and relics alluding to the development of life on Earth, reminding the viewer of the dynamics of our planet.

**Presentation Type and Session:** Poster VI

## **Isicathamiya: South African Music From Coal Mines To Paul Simon**

**Marie Bofinger**, MUS 440W: Ethnomusicology  
Faculty Mentor: Professor Carolyn Guzski, Music

This presentation will discuss the importance of Isicathamiya, a style of music that developed in South Africa during the 1920s and 1930s, and its importance in preserving Zulu and Nguni identity. Isicathamiya has gained even more popularity today with the growing success of Ladysmith Black Mambazo, particularly after the group was featured on Paul Simon's album *Graceland*. Isicathamiya is a synthesis of traditional Nguni music and a Zulu tribal dance called Ingoma, mixed with American 19th-century blackface and influenced by European chorale form and harmony. It is performed by a cappella vocal groups formed entirely of men who sing all parts ranging from bass to soprano. Today, Isicathamiya is featured at weekend-long competitions known as Ingoma Ebusuku, in which competing groups are judged on vocal blend, dance, and unity. This presentation will help illuminate the rich history of Isicathamiya through research from scholarly secondary sources, supplemented by musical analysis. Musical and audio-video examples will illustrate Isicathamiya's significance in helping to preserve and provide a sense of identity for the Zulu and other Nguni peoples.

**Presentation Type and Session:** Oral — Humanities III

## **Isidor Philipp and the Art of Piano Pedagogy**

**Aaron Masters**, MUS 303W: Music History 2  
Faculty Mentor: Professor Carolyn Guzski, Music

The subject of my research project is the great piano pedagogue Isidor Philipp's contributions to the "world of piano." Philipp was a Paris Conservatoire student of Georges Mathias (1826-1910), himself a student of composer Frederic Chopin (1810-1849) in early 19th-century Paris. I intend to investigate the musical influences of both Chopin and French composer Claude Debussy (1862-1918) on Philipp, demonstrating Philipp's considerable artistic legacy as

both pianist and pedagogue. My interest in the topic began with my own studies with Lockport pianist Douglas Monroe, a pupil and disciple of Philipp. I will be conducting a series of interviews with Mr. Monroe to uncover first-hand information regarding Philipp's teaching methodology and style. I hope to supplement the results of this oral history by presenting (1) audio examples, as Philipp recorded a limited number of compositions; and (2) photographs and published musical scores of Philipp. My ultimate goal is to illuminate music as a vital part of culture, by recognizing the men and women who have played a part in keeping the great artistic traditions of the past alive.

**Presentation Type and Session:** Oral – Humanities III

### Kindred: A Theatrical Reflection

**Cynthia Delaney**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Cristina Pippa, Theater and Professor Andrea Guati, Director, All College Honors Program

In light of the suicides and hate crimes committed by and against young gay individuals, I have written and staged a play personalizing the victims and confronting their tormentors in hopes of changing individuals' perceptions. "Kindred" is a play that portrays families of gay men and their feelings toward them, ranging from complete intolerance to full acceptance. While touching on themes of suicide and hate crime, it also reflects on recovery techniques, the media, and institutional interference (or lack thereof). By reading the true stories of gay men who have suffered harassment, bullying, and brutality and statements given by family members, particularly mothers, I've put together a cast of eleven characters to convey the message that members of the LGBTQ community are normal individuals, with families, hopes, and dreams. Upon staging and directing this play, conducting a survey, and holding a talkback to receive audience feedback on the subject matter, I will discover whether or not the play, written in a "docudrama" style, achieves the impact that I hope it will or if I need to alter it. As a glimpse of what the project will be like, I will give background information on each of the families and show an actor's portrayal of at least one of the scenes from the play.

**Presentation Type and Session:** Oral – Humanities II

### The Language of Music and Dance: A Look At the Haudenosaunee Nations

**Ryan Awayda, Joseph Cheslak, Rachel Knauff, Michelle Notaro, and Kelly McGlynn**, MUS 440W: Ethnomusicology  
Faculty Mentor: Professor Carolyn Guzski, Music

Haudenosaunee, meaning "People of the Longhouse," is the native name for what some may know as the Iroquois. Haudenosaunee is a historical alliance among several indigenous groups and is now comprised of the Mohawk, Oneida, Onondaga, Cayuga, and Seneca nations, together with the newest member, the Tuscarora. Through this unity, native peoples share rich traditions, including the incorporation of music and dance as a

means of expression, communication, and celebration. Rituals such as powwow include song and dance in which every sound and movement holds significance. We derived knowledge on the many components inherent to this art from fieldwork observations gained from members of the Seneca and Tuscarora nations, as well as live musical performance. The music we will explore is traditionally performed by singers who utilize chanted vocables with percussion accompaniment using instruments that are still handcrafted and personalized to this day. Our goal in this presentation is to illustrate the use of song and dance in congruency with each other, demonstrating how music is a central element in Native American cultural expression.

**Presentation Type and Session:** Poster III

### The Lively and Fabulous Fiddle

**Michael Campbell**, MUS 440W: Ethnomusicology  
Faculty Mentor: Professor Carolyn Guzski Music

My presentation will answer questions such as who, where, and why the string instrument known as the fiddle was used in early American music. My research has taken me back to the nineteenth century, in the years surrounding the Civil War and America's Westward Expansion. The South, Midwest, and Northeast regions of the United States were predominant areas where fiddling was prevalent. I gathered much of my information through scholarly books, journal articles, and recordings. Fiddle music was often associated with dance and was practiced by a variety of social classes and immigrant groups. My research led me to the conclusion that although a fiddle and violin are very similar, there are some important differences in playing techniques. At the end of my investigation, I discovered why fiddling intrigues people. Fiddle music influenced and inspired future sub-genres of country music well into the twentieth century. In my presentation, I aim to supplement my discussion with a musical transcription and audio example of a fiddle tune that achieved popularity among both civilians and military groups of the era.

**Presentation Type and Session:** Oral – Humanities III

### Making Connections: Metal and Ceramics

**Michelle Sallander**, Ceramics  
Faculty Mentor: Professor Robert Wood, Design

I investigated the properties of precious metal clay and how to adhere this material to ceramics. Precious metal clay is powdered metal combined with water and an organic binder, which when fired, burns away and what is left is solid metal. Interestingly, when water is added PMC behaves and can be formed using traditional clay forming methods. Once the PMC is fired and is a solid metal it can be formed with traditional metal forming techniques. I am interested in the contrast of the two materials, metal and clay, and how they can work together in sculpture. I experimented with many different methods to attach the two materials including glaze adhesion, soldering to glaze, prong setting, and riveting. The most

successful solution I found was to create a PMC metal clay slip, which is basically watered down PMC clay, then paint it on to an unglazed terra cotta claybody. After this is fired, the PMC is fused to the clay and then I can solder the PMC formed and fired metal pieces to the area coated in PMC slip. Through this discovery, I am able to combine these two different materials together to open new possibilities for my work and will allow me to push my ideas in a new creative direction.

**Presentation Type and Session:** Poster III

## The Marriage of Materials

**Jacquelyn O'Brien**, FAR 343: Advanced Sculpture  
Faculty Mentor: Professor Elena Lourenco, Fine Arts

As a developing artist, I am trying to awaken myself to the joining of materials in a harmonious way. I am deeply interested in exploring the organic curves one can attain in the bending and manipulation of wood veneers and linen fabrics. I am very attracted to the organic and natural elements of these materials, particularly in their relationship with each other and the space around them. Due to this attraction I am drawn to further analyze my interest; I am looking for new ways to interact with the materials so that I can learn new processes that may become useful to my aesthetic and practice and perhaps through further investigation, reveal what it is that pulls me to this organic set of materials and forms. Currently, I am exploring ways to work with sheets of plastic and fabric combined in a harmonious way. I hope to use this investigative process to better understand my materials as well as the process involved. The resulting aesthetic, which is most important, guides my hand and decisions throughout this process.

**Presentation Type and Session:** Poster VIII

## Metalsmitten: Metal Work Mixed With Chase and Repousse

**Lena Scapillato**, Metals/Jewelry  
Faculty Mentor: Professor Tara Nahabetian, Design

My research during the fall semester was focused on the art of metalsmithing. Metalsmithing techniques started during the Bronze Age between 4000BC- 1000BC and continue to be utilized today. By combining basic metalsmithing techniques with advanced forming techniques I am able to give character to metal forms and vessels. A single vessel may be developed by using multiple metalsmithing techniques. For example, each metal object starts with angle raising, a technique used to create metal hollow forms from flat sheet through hammering. After the overall form is developed, I use chasing and repoussé to add texture and details to organic forms. Chasing and repoussé is an ancient technique that forms the metal by pushing both the front and the back of the metal. Through this technique I can also create low and high relief. Using historical metalwork such as bowls, reliquaries and vases as inspiration I

designed vessels ranging from five to twelve inches. During my presentation, I will present images of metalsmithing processes and the finished metal objects. I will present this work with a poster that contains photos of the process as well as finished pieces.

**Presentation Type and Session:** Poster II

## Molding Young Minds

**Sarah McNutt**, Ceramics and Art Education  
Faculty Mentor: Professor Elena Lourenco, Fine Arts

During my student teaching experience I taught general art K-8th grade at Houghton Academy PS 69 in Buffalo where I had the opportunity to work with two 8th grade classes on this project. I developed and executed an assignment that involved these students with local art community resources and culminated in participation in a Buffalo State College aluminum pour. Students first examined the tile work of Richard Notkin focusing on the way he used symbols to convey larger ideas. The students were then challenged to create unique images and designs that were meaningful to them. After sketching out their ideas, each student transferred their designs on to a sand mold (a block of resin bonded sand made in advance) using the subtractive method of carving. Together with Buffalo State Sculpture faculty and the cooperating teacher at Houghton Academy, Will Cavanaugh, we poured molten aluminum into the students' carved scratch molds. Though we were unable to bring the students to the Buffalo State sculpture facility to see the actual pour, the whole process was documented through video. After trimming and polishing the tiles, we critiqued with the 8th grade students and watched the footage from the pour. This project taught me a lot about the process of finding funding to support special projects and establishing safety precautions with students in a classroom while working with new materials. It also offered student the chance to create sculptures with aluminum and learn about the art community.

**Presentation Type and Session:** Poster IV

## Moving Metal: Artisan Gas Forge Construction

**Glen Stewart**, Sculpture  
Faculty Mentor: Professor Elena Lourenco, Fine Arts

The majority of my artwork involves shaped and welded steel as either an internal armature, or as the primary structural element. Shaping of metals for works of art without an adaptable forge to heat them makes for less than ideal finished work, or consumption of expensive fuels and excessive studio time. Forges are used to heat malleable metals such as steel, copper, bronze, and malleable iron for the purpose of hammer forging, drop forging, forge welding, annealing, and other techniques utilized in the shaping and forming of metals. I have researched many gas forge designs and, using the best features of several, intend to construct a portable, flexible-application, natural gas-fired, artisan forge to assist me in my studio



practices. It will be built using proven burners to assure appropriate temperature and efficient fuel usage and incorporated into a flexible forge designed that will accommodate metal stock and pre-shaped pieces that most forges cannot. Thereby giving me the ability to exert a greater degree of finesse and control of over my work.

**Presentation Type and Session:** Poster VIII

## Naturalistic Pictorial Space To Formalistic Reconstructions: A Search For Direction and Growth As a Painter

**Brian Nacov**, Painting

Faculty Mentor: Professor Lin Xia Jiang, Fine Arts

During the Summer 2011 I embarked on a painting tour of New York State to create plein air paintings in a naturalistic, pictorial style from the unique features of New York State Parks. Afterwards, I broke these paintings down and created new, abstracted, formalistic compositions from their elements focusing on line, shape, value, and color. I looked to landscape painters such as George Inness and Albert Bierstadt, and formalistic artists like Piet Mondrian and Richard Diebenkorn for direction and inspiration in this endeavor. After viewing original works of artists pertinent to my goals on display at local galleries including the Albright Knox in Buffalo and The Memorial Art Gallery in Rochester, I set out to paint in areas such as Niagara Falls, Allegany, the Catskill Mountains, the Hudson River, and the Adirondacks. After completing a variety of plein air landscape paintings I returned to my studio and began to analyze and reorganize their formal components. I used the elements of the plein air studies to create formal reconstructions in which the colors became more vibrant, pictorial space was collapsed, and what were once recognizable objects began to refer to themselves as planes of color. Through this project I gained great insight into the creative process, as well as growth in my direction as an artist, my personal style, and my abilities as a painter.

**Presentation Type and Session:** Poster VII  
Exhibit in the Mezzanine Level

## Nature Made Sculpture Materials

**Leigh Johnson**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

I often combine a variety of natural materials in my work. I choose these materials based off of the emotional response triggered by their texture, color, or other inherent qualities. I often try to create the feeling of skin or organic tissue in my work in an effort to provoke the feeling of a living creature, or something that was once living. I have recently been introduced to rawhide as a sculptural material. I am attracted to rawhide because of what it literally is: rawhide is actual skin so it is of great interest to me. The texture, color, and manipulability of rawhide are very different than many of the materials I have previously worked with. In addition to rawhide, I have explored various other materials, specifically animal products

such as horsehair, deer sinew and dewclaws, as well as dried fur-bearer paws (raccoon paws for example). I have been working on combining these new materials with the natural materials I have previously worked with, such as wood, wool and clay. I feel that using materials made by nature makes my work stronger and reinforces the natural themes found in my work.

**Presentation Type and Session:** Poster VII

## Non-Traditional Bookbinding

**David Huurman**, Printmaking

Faculty Mentor: Professor Anthony Gorny, Fine Arts

The focus of my research took shape with non-traditional bookbinding, especially the Coptic and Caterpillar stitch methods. Additionally, I explored the use of unconventional materials, such as Plexiglas for the book covers. I am very interested in the aesthetic features these techniques and materials have provided. I also realized how they are used in creating visual composition over my book covers and spines while still employed as constructive elements. I discovered how to utilize such practices with a conceptual base, pushing the boundaries of Book Arts to transcended into a realm of sculpture in my work. I will present my finished work along with any prototypes and notebooks I created.

**Presentation Type and Session:** Poster V

## Not Just Fish: The Spanish Musical Tradition "La Tuna"

**Rachel Giuseppetti**, MUS440: Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

When you think of tuna you probably think of the fish. I did, too, until I recently studied abroad in Spain and was introduced to la Tuna—part of the Spanish rondalla musical genre traditionally performed by university students. Inspired by the four talented and charming musicians who performed at my university, I was led to explore the history and traditions of la Tuna. Members of a tuna, called tunos, perform a variety of love songs, old and new, and accompany their singing with traditional Spanish instruments such as the guitar, bandurria, and lute. My research focuses on the historical roots of la Tuna, its transformation into a living, modern form, and associated customs such as traditional costumes worn by the performers. I have discovered that while la Tuna is a medieval tradition dating from the 8th century, it continues to gain popularity across Europe, Central America, and South America today. My presentation will explore the traditions of La Tuna and will include a musical transcription of a typical Tuna song, as well as audio/visual examples (taken from my own experiences in Spain) that highlight the Tuna sound.

**Presentation Type and Session:** Oral – Humanities III

## Pillars of Salt: A Sculptural Exploration of Religious Hypocrisy In a God-Fearing Country

**Brian Nacov**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

Recently in my sculptural work, I have been exploring the concept of being an atheist in America, a predominately Christian country. Some facets of faith can be beneficial, but the oppressive nature of traditions firmly rooted in the past fills me with concern. Through my sculptures, I have attempted to capture the essence and emotion of those wronged by organized religion, particularly Christianity, in order to create empathy toward these victims of discrimination, hatred, and persecution. I have been experimenting with salt as a primary material to communicate these ideas in three-dimensional form. Salt itself is an abrasive, parching, harsh substance. It also holds connotations to the biblical story of Sodom and Gomorrah. Depending on different interpretations, the cities were destroyed by God for either being too promiscuous, steeped in homosexual activity, or for being inhospitable toward outsiders. The punishment for turning to look at the ruin was transmutation into salt. I feel that salt can be a strong communicator of the consequences of not accepting the outsider, as well as a way to create dialogue about the current state of LBGT rights in the world due to religious bigotry. I plan to use techniques including applying salt to a form through crystallization or adhesion, as well as casting it into molds. My goal in this endeavor is to create several pieces based on the aforementioned concept.

**Presentation Type and Session:** Poster VI

## Rwanda: A Journey To My Roots

**Tieisha Thomas**, INE 390: Rwanda Theater Exchange

Faculty Mentor: Professor Drew Khan, Theater

During my two-week stay in Rwanda, Africa in January 2012 it is hard to put into words what I went through. I had the amazing opportunity to travel halfway across the world to country that many might consider forgotten but is very much alive in my heart more than ever. In my short stay in Rwanda I along with 6 other students had the unique opportunity to visit genocide memorials, orphanages, schools, refugee camps, villages, wildlife sanctuaries, cultural organizations and on the way forge bonds of friendship and love. My presentation will not only consist of the personal trials and tribulations I went through but also what sprang forth because of it. In our theater department we believe in theater for social justice and change. While in Rwanda, we collaborated with a professional theater company, Mashirika, comprised of professional actors, singers and dancers. We worked together daily through theater exercises and games. What started as a group of strangers on January 4th and ended as a family on January 20th. During our final days of the trip, we collaborated to develop a piece of theater titled 'When the Walls Come Down-TRUTH.' The connection between Mashirika and Buffalo State Theater will be one that lives on. It will

be one that everyone involved will carry around for the rest of our lives.

**Presentation Type and Session:** Oral — Humanities II

## Second Chance: The Application of Recycled Material In Furniture Design

**Kelly Caruso**, Wood/Furniture

Faculty Mentors: Professor Jozef Bajus, Design and Professor Sunhwa Kim, Design

Furniture is a part of our everyday lives. It is designed for comfort and function, as well as decoration and aesthetic. By taking an environmentally conscious direction in designing and constructing furniture, I can recycle materials and prevent unnecessary waste. In manipulating these materials to make structurally sound furniture objects, I can give them a second life. Through my research, I used found and donated materials, ranging from cardboard to mixed paper egg cartons, to create several different samples. I experimented with stitching, paper making techniques, and weaving, as well as using basic woodworking knowledge of structure and joinery. I also attempted to make my own all-natural glues to use as an adhesive with the various materials. The application of my research has resulted in the design and creation of furniture pieces that are made entirely from materials that have been recycled. Using recycled materials and implementing other green strategies may take a little more time and effort, but the rewards are measured in conservation of natural resources, limiting the release of toxic substances into the environment, and allowing reasonable space for new wastes in our municipal landfills.

**Presentation Type and Session:** Poster VII

## Shadows Under the Bed

**Mallory Scheller**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

I am interested in using my most surreal experiences from life and my dream world to create a series of hand made sculptures and storybooks. We wake up from the most intimate dreams to only experience our harsh reality of life while there are other nights where our nightmares have us begging to wake up. I am creating "Shadows Under The Bed" to unveil all of the darkest fears, secrets, passions and joys from the depths of my subconscious. I've been working with a variety of delicate cloths to create sewn dolls as well as books sewn from cloth. I'm in the process of including other methods such as body casting as well as combining additional mixed media. Somewhere between my subconscious and my bed, there is a story waiting to be told and somewhere in reality, there is someone eager to experience it.

**Presentation Type and Session:** Poster IV

## Shimmying Across the Atlantic: Development In Belly Dance and Its Music

**Laura Klemann**, MUS 440W: Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

The migration of belly dance from the Middle East to the United States has caused diverging trends in motivations, stereotypes, and cultures in this dance genre and its music. I will be discussing these differences, comparing American style belly dance (characterized as “American Cabaret Belly Dance”), and current Middle Eastern practices, as well as the musics associated with them. The regions of the Middle East on which I will focus most closely are Egypt and Turkey, due to the plethora of resources available regarding current dance and musical trends in these regions. Through fieldwork, oral history, and video and scholarly written sources, I will be discussing the stereotypes and stigmas that are associated with belly dancing in the Middle East in comparison with the United States, and in particular, the influence of these stereotypes on gender roles in both regions. My presentation will display musical examples of American-produced and performed pieces of music meant to be used with American cabaret belly dance, and compare them with examples of contemporary music composed in the Middle East specifically to accompany the Middle Eastern style of belly dance. As a final synopsis of my discussion, I will exhibit a live performance by an American Cabaret and Middle Eastern style trained belly dancer, who will present in succession the contrasting dance forms to recordings of the musics discussed.

**Presentation Type and Session:** Oral – Humanities III

## Silence

**Cassandra Conrad**, Theater and Music, **Cecelia Barron**, Theater, **Elixander Bane**, Theater, **Robert Sherman**, Music, **Chelsea Correa**, Theater, and **Pamela Mendoza**, Theater

Faculty Mentor: Professor Carol Beckley, Theater

“Silence” is a play portraying the lives of four people at their breaking points before committing suicide. The intimate structure, of the play, allows the audience to see the impact and struggle ordinary people face as they contemplate suicide. The play focuses on breaking the stereotypical idea of ‘what’ and ‘how’ suicide happens. A woman longing to be mother, an Ivy League student, a homosexual man, and a young teenage girl all have individual stories and individual lives. However, the purpose of the play is to give them all a link. As the audience watches their downfall they also see glimpses where someone could have said something or done something. But, in the end, no one did anything. As a result, three lives are lost; lost and consequently silent. Nonetheless, one character remains alive and gives hope to the idea that suicide can be prevented. “Silence” is an original play written by Cassandra Conrad and Cecelia Barron. We have combined our efforts and done research on real stories about real people who have committed suicide. We want to express the unspoken words that these people never got the

chance to. Our goal is to inspire an audience to make a change by noticing the little things that could prevent suicide from happening.

**Presentation Type and Session:** Performance – Flexible Theatre, April 28, 11:30 a.m. – 12:30 p.m.

## Skin, Muscles and Bones Oh My: The Artistic View On the Human Form

**Kevin Whalen**, Painting and Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

Most people, when they think of the body, they think of just the surface and the shape, when actually it is what is inside that shapes our bodies. There are all different body types, Tall, short, heavy, thin, average; but we are very similar on the inside. I love this notion, which is why working with the human figure is my main focus in both my painting and sculpture majors. My work involves the human figure and form: what makes up the body, and how it works. Currently, I am learning all about how the body works and moves in my Biology class. I plan on artistically showing this relationship between the bones and muscles, and how the brain and spine work together to let our bodies function in a multi-media sculpture(s). I will be using different medium to present my research. These mediums include pencils and oil paint for my preliminary 2-d figure studies. In sculpted form, I will use steel, which I will cut and assemble with the welding process, to fabricate the likeness of the spinal vertebrae. On top of this, I will use wire to express various circulatory and nervous systems, and clay, directly applied to the steel, to build up the likeness of muscle. With consideration to formal elements, there will be some artistic liberty taken in a subtle abstraction of the realistic elements. In the end, I would like to create a form that is reflective of the human skeletal and musculature system, while expressing an exaggerated gesture and utilizing various material applications to elicit a visceral and emotional response from the viewer.

**Presentation Type and Session:** Poster VIII

## Slow Down, You're Russian the Beat! An Overview of Russian Folk Music

**Jennifer Babcock**, MUS 440W: Ethnomusicology

Faculty Mentor: Professor Carolyn Guzski, Music

There are many different forms of Russian music, and folk is one of the most prominent and important to Russian culture. My current research on the topic indicates that the greatest significance of folk songs in Russia was political in nature. Particularly after World War II, when many Russians were displaced from their homes, it became essential to pay homage to a common culture and homeland. Music was a central signifier of the people's strong sense of Nationalism. This folk genre is still important to popular expression today: Gogol Bordello has emerged as an influential contemporary performer of Russian folk who has crossed over to American culture as well. Family experiences served as the major

impetus for my desire to delve deeper into this topic. Music was a constant presence, both in my home and at family gatherings. I have strong childhood memories of my uncle's Ukrainian folk band (my great-grandmother was raised in Russia), in which the accordion, or Livenka, would come out and everyone would start dancing. My presentation will focus on music from the Eastern part of Russia and the Ukraine. The Ukraine did not achieve independence until 1991; Ukrainians are now the second largest ethnic-minority in Russia. The region therefore shares a similar history and culture as well as musical influences with the Russian folk genre. I will present both musical score and visual examples to illustrate my musical and cultural discussion points.

**Presentation Type and Session:** Poster II

### **Structure and Indeterminacy: The Musique Concrète Styles of Edgard Varèse and John Cage**

**John Smigielski**, MUS 303W: Music History 2  
Faculty Mentor: Professor Carolyn Guzski, Music

My paper will explore the similarities and differences in the compositional styles of Edgard Varèse (1883-1965) and John Cage (1912-1992). Although both composed in multiple genres, I intend to focus on the musique concrète works of each composer: *Poème électronique* (1958) by Varèse, and *Williams Mix* (1952) by Cage. I have used scholarly studies on Cage, Varèse, and the history of electronic music as source material for my investigation. Musique Concrète was invented (formally) in 1949 by Pierre Schaffer and Pierre Henry at the Radiodiffusion-Télévision française (RTF) studio in Paris. The RTF studio was at the center of pre- and post-World War II electronic music composition in Europe. The term "Concrète" refers to the use of abstract sound (derived from natural or electronic origins) as the primary focus of the composition. My preliminary research has revealed that Varèse and Cage employed very different structural approaches in their work with electronic media. In *Poème électronique*, Varèse utilized a structured, highly complex notated score in what he termed a work of "organized sound," with subtle details that were carefully executed. Cage, on the other hand, composed *Williams Mix* using a technique known as indeterminacy, derived from Cage's study of the I-Ching, (the ancient Chinese Book of Changes), yielding "chance music." Although the composers had very different styles, they shared many similar influences and ideas. In my presentation, I will offer a brief history of both composers and their influences. I will then examine the two compositions, linking elements of each to their influences, and to each other. I hope to give my audience an understanding of this lesser-known musical genre, as well as insight into the ways in which two seemingly unrelated works are in fact related on many levels.

**Presentation Type and Session:** Oral – Humanities III

### **They Have Never Stopped Living Under My Bed: A Sculptural Interpretation of Fears**

**Francesca D'Angelo**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Darien Johnson, Design and Professor Andrea Guiati, Director, All College Honors Program

I am a basement stairs sprinter, a bed jumper, and an under the covers hider. The spaces I encounter during the day come to life when the sun goes down and the lights are off. Lampshades open their eyes, and coat-racks grow arms with eager hands waiting to snatch those who pass. Fears manifest themselves into ankle grabbing, closet peeping, under the bed dwelling monsters that return night after night, morphing out of familiar objects into creatures of the dark. Through the manipulation of clay and glaze I will bring life to these ideas, producing tangibility where only ambiguity had existed. By doing this I will be better able to grasp what my fears are made of.

**Presentation Type and Session:** Poster I

### **Traditional Drafts Applied To Contemporary Weavings**

**Tegan Ford**, Fibers  
Faculty Mentor: Professor Jozef Bajus, Design

Hand weaving is one of the oldest crafts known to man. Integral to human survival, cloth was created to shield our bodies from the natural elements. As our control of environmental conditions increased, the design of cloth transformed from being a necessity to an item of luxury. As a hand-weaver, I focus on how the materials, color and fabric structure are manipulated to create textiles that are desirable, comfortable and treasured. I am influenced by the graphic details in traditional weaving patterns as well as my research into contemporary colors that are used in the world of couture fashion. Looking at trends in the fashion industry informs me what hues are considered to be luxurious. How the colors interact within a fabric dictates which pattern is used for a particular weaving. Natural fibers, such as wool, silk and cotton, are also prevalent in my work because I feel that these materials create a fabric that is more alive. Rather than focus on the technological advancements in textiles (synthetics), I use natural materials to refer back to the earliest textiles. The combination of contemporary colors that relate to high-end design and materials that are derived from nature, create a collection of works that will be cherished for years.

**Presentation Type and Session:** Poster VI

### **Traditional Non-Ferrous Alloys**

**John Harris**, Metals/Jewelry and Anthropology  
Faculty Mentor: Professor Tara Nahabetian, Design

Alloys, or mixtures of metals, have been used throughout history and have spanned across the globe. While some alloys such as sterling silver are commonly used in contemporary jewelry design, other alloys are used far less. Though these alloys appear less often



than modern alloys, history has taught us how to use and prepare these traditional metals. Using different percentages of metals allows for various working properties and aesthetic features that appear in each alloy. Samples of modern alloys such as high-zinc, jeweler's brass and sterling silver will be displayed along side traditional alloys such as the Mayan tumbaga, ancient bronze and the Japanese alloy shibuichi.

**Presentation Type and Session:** Poster V

## Use of Silicone With Ceramic Forms

**Robert Sturgess**, Ceramics

Faculty Mentor: Darien Johnson, Design

I am interested in the use of different media including hair, nail polish, plastic, and more recently silicone. I explored the use of both household silicone caulking as well as a two-part silicone. I am interested in seeing how silicone can compliment and potentially change the feeling evoked by the ceramic form. My research focused around using silicone to encapsulate a ceramic form. To do this, I poured silicone into an "egg sack" plaster mold, similar to the plaster molds used in the ceramic field for slip casting (a technique where clay is made into a liquid and poured into a mold). I made several of these egg sack forms to create a "nest" of eggs that will be installed at my upcoming solo exhibition and perhaps accepted into other exhibitions. Ultimately I want the viewer to be intrigued by the unique feeling that the silicone evokes and take a closer look at my body of work.

**Presentation Type and Session:** Poster IV

## We Are All Tied To Something

**Andrew Hutner**, FAR 343: Advanced Sculpture

Faculty Mentor: Professor Elena Lourenco, Fine Arts

I make artwork based off of compulsiveness and irrationality, often allowing my subconscious take over and give me direction. There is a very raw, instinctual quality to my sculpture that I believe portrays the essence of human nature. I have discovered by creating my work quickly I can capture a moment in time, or a fleeting emotion. When I take my time and slow down with my process, my artwork has the power to tell a story. To impact such a narrative, I often choose more grotesque materials including wax, latex and human hair and my colors have lately been bright and audacious. I am attracted to more visceral materials because they feel very real to me; they reflect what I see as the unpleasant subconscious mind. For this project, with a better understanding of my working process and inspiration, I created a body of work that was exhibited as my senior thesis show. This show was one of the most ambitious and incredible projects I have ever created. The subject matter came from a very dark place in me, and it came out as an installation of large tightly bound figurative works: bound to themselves, to the floor and to the walls. My show was a room in which the viewer could experience the same sensation that had been plaguing me for months. In a

way, my show was also a sort of "exorcism" of my anxious, knotted-up feelings by applying these feelings to actual forms and setting them into a physical place. I entitled the show "We Are All Tied To Something" because I feel like everyone is bound to aspects of their lives. Whether it is a job, mannerism, addiction, or significant other, we all have things in our lives that we simply cannot let go of.

**Presentation Type and Session:** Poster V



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## ***Business and Fashion & Textile Technology***

### **Are You Supercharged?**

**Nicole Aversa**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

This research examined the different technologies and advancements in the cotton industry. This includes new technologies such as “Super Charged” cotton that was developed by Cotton Incorporated and first implemented by Under Armour Inc. This cotton has moisture wicking properties than previously could only be found in garments made from manufactured fibers. The advent of this and other innovations have revolutionized the sportswear industry we know today. New clothing now makes it possible for athletes to achieve more with less effort and without harming their bodies. New polymer fibers are starting to change not only the sportswear industry but also physical jobs such as firemen and policemen in apparel items such as bulletproof vests.

**Presentation Type and Session:** Poster II

### **“Bale” Out: Cotton Prices Are Rising!**

**Courtney Kiff**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

Cotton is a major component in the textile industry but if cotton prices became excessively expensive, would you still buy products made from this fiber? This research looks at the recent explosion of cotton prices and its effect on consumers. Cotton prices have hit an all-time high in the past year and some consumers may debate if their comfy cotton t-shirts are worth the extra dollar or two. Due to agricultural issues, the production of cotton has decreased while the demand is increasing. Cotton, which historically has been a reasonably priced fiber, currently has become more expensive when compared to other fibers. Textile markets and company brands have been effected and forced to make the decision to either not buy cotton products or to purchase less. Today, consumers are more environmentally friendly so they prefer to buy cotton more than any other fiber. Products that contain more cotton will also increase in price that turns off the consumers from making the purchase. How much can the price increase before consumers start looking elsewhere? This issue has the potential to damage cotton manufacturers in the future if consumers become used to purchasing other fibers.

**Presentation Type and Session:** Poster IV

### **Breathe Easy, Save Money: Sustainability In the Clubhouse**

**Alex Davis, Karen Coughlin, and Makayla Bidell**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

The Club Managers Association of America (CMAA) is a professional association for managers of private clubs. The Buffalo State Chapter of CMAA attended the 2012 World Conference & Club Business Expo in New Orleans, February 23-27. The chapter submitted an award-winning project for the “Club of the Future: Sustainability”, a student competition. The project was an exploration in sources of energy that could help reduce costs for private clubs and ultimately promote sustainable means of club operations. The project focused on the construction of a sustainable clubhouse in the next ten to fifteen years. Private clubs are second homes to many club members. A member spends afternoons and evenings at clubhouses that require a tremendous amount of energy and water use. Many clubs have beautiful lush golf courses that necessitate massive amounts of water for irrigation. To combat the high cost of water and reduce water waste, a creative, futuristic clubhouse design was drafted. The design features a rainwater recycling system alongside a solar water-heating unit. The outcome is a cost effective and energy efficient way to generate water for a club. In order to reduce the energy consumption of fossil fuels, wind-turbine technology is engineered to harvest wind energy through the use of small wind turbines. These renovations to the private clubs would reduce costs and ultimately fulfill the need for more sustainable energy.

**Presentation Type and Session:** Poster II

### **Certification Proclamation: The Story of Certified Organic Cotton**

**Jessica Jaroszewski**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

The ability to make a change due to the products consumers buy and use every day makes the power of the consumer stronger today than it has ever been. As consumers become more and more eco-aware, the trend towards products that do less harm to the environment and create a better future for the world are becoming more available and more popular globally. Certified organic cotton is quickly becoming more common; tags and labels are popping up on clothing, household goods and everywhere in between touting “organic cotton” but what does the certification truly mean? My poster chronicles and contrasts globally how cotton becomes certified as organic, what the certification means and whether or not the quality standards are upheld to be the same across the board using scholarly research sources, the global input of the internet and the media’s perspective on the topic.

**Presentation Type and Session:** Poster II

## **Cotton and Its Wonders**

**Nicole Trimper**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

Organic cotton is the use of methods and materials that have a very low impact on the environment. Organic cotton is grown and processed without any toxic chemicals so that when worn the user's skin will not have come in contact with toxic chemicals. This research looks into the difference between the dyeing behavior of organic cotton and conventional cotton is that the organic cotton is ring spun yarns of 40s combed organic cotton, and the ordinary cotton were used with similar parameters with a beating point and settings. Knit fabrics are produced with loop length and weight that use organic and cotton yarns, also giving both fabrics that were processed in the GOTS processing unit. Two compounds of silicon are methacryloxymethyltrimethylsilane (MSi) and methacryloxypropylpentamethyldisiloxane (MDSi). They were used to find the silicone surfactants that are nonionic and cationic and in studies the cationic surfactants used on cotton were to be higher than that of the nonionic surfactants. The films on the surface were characterized by SEM, FTIR, and XPS and the end results showed that the thin polymer coating on the surface was successfully formed. So the results to this show that when washing cotton the fabrics show very good water repellency than that of the MDSi treatment of cotton. The fabric finishes explains why the desirable features to clothing are good with softness, wrinkle-free laundering, anti static cling and color fastness.

**Presentation Type and Session:** Poster III

## **Cotton Incorporated's Efforts To Remain On Top With Moisture Management Technologies**

**Erika Jackson**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

This research looks into Cotton Incorporated and their use of moisture management technologies to in order to remain competitive with synthetic fibers. With the sportswear market at an all time high synthetic fibers have incorporated a moisture management finish that allows the wearer to feel comfortable and dry when they are active and sweating. Since cotton is a hydrophilic (more absorbent) fiber people felt very uncomfortable due to the perspiration trapped in their shirts when they were highly active. In response to this, Cotton Incorporated has developed new technologies such as "Wicking Windows" and "TransDry" moisture management finishes. What moisture management is and how it works will be addressed as well as Cotton Incorporated's goals and strategies for increasing cotton's demand. This research compares cotton and synthetic fibers with moisture management finishes, and will name a few of the retailers that have used this technology in their garments. The information throughout this paper was retrieved by Cotton Incorporated's website, their annual report, and peer reviewed newspaper articles.

**Presentation Type and Session:** Poster VI

## **Cotton Production in China**

**Kristin Fildes**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

Cotton is produced in many areas of the world, mostly in China, India and the US. One of the largest consumers of cotton is China. Currently, China cannot keep up with their own demand for cotton fiber. The production of cotton has changed dramatically over the centuries, and there is ongoing research to increase the yield of cotton and reduce the use of pesticides – two major areas of concern for farmers and consumers worldwide. One particular pesticide Bt (*Bacillus thuringiensis*) is actually injected in the cotton seed to make the crop insect repellent. But is this truly better than other methods of growing cotton? Can China grow enough cotton to meet their own needs? Should China grow enough cotton to meet the needs of their people? My poster will indicate how cotton is produced in China and how it affects the farmers based upon chemicals used to grow the crop and how this may affect the world cotton economy.

**Presentation Type and Session:** Poster VI

## **Cotton Production In India: Changing Lives?**

**Philip Fatuzzo**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

India is a newly developing country, making every step it makes crucial towards its economic and social growth. Like many developing countries, textiles are produced and exported to maintain economic stability. Along with manufacturing products, developing countries can grow the fibers such as India growing cotton. This research looks at India's economy through their production of cotton and the pro's and con's of their cotton industry. India is increasing its exports and has a very low amount of imports, making it a positive trade balanced country. India produces many exports for well-known companies and this production is increasing the country's GDP as well as their global status. One issue remains is the water supply - water supply is important to the cotton crop. If poor quality water is used, poor crop turn out will occur. How can this water be supplied if there is already a shortage in India? Poverty in this country is leaving families without water and jobs, but is cotton production giving and taking away from the community at the same rate? Cotton is used in everyday life, from clothes to even medical supplies. With the demand being high, production needs to follow. This is why India being a cotton producer is a giant leap in the right direction. This will increase jobs and bring money to the country to better itself.

**Presentation Type and Session:** Poster IV

## **Cotton: The Staple of the Industrial Revolution In Britain**

**Lydia Mittiga**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

This research looks at the British Revolution and how it was intertwined with cotton. During the 18th century the Industrial

Revolution started in Britain, which was already a powerful empire ruling over many lands. Britain had three staples: coal, steam and cotton. Cotton was a powerful fiber because it was the first fiber to be spun on machine spinners. Technology and inventions changed the way people lived. Inventions during this time include the Spinning Jenny, the Spinning Mule, the Flying Shuttle and others. Everyone could get jobs in cotton production during the Industrial Revolution – from men, women and even children. Sometimes entire families would work in the factories together. The rise of cotton mills throughout England was dramatic during this time; cotton overpowered most of the industry. The cotton industry put its mark on everything during the industrial revolution and people created a demand for this fiber. As the British Empire grew larger, the population grew and so did the demand for cotton making Britain the “workshop to the world” (Trueman, 2012).

**Presentation Type and Session:** Poster VI

### **Cows and Cotton: What a Combination!**

**Monique Cheek**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

It is safe to say that cottonseeds are miracle seeds. These tiny seeds can be manipulated and transformed and used for things that one can't even imagine. From apparel fabric, insulation in homes and buildings, and medicals functions, cotton and its byproducts have major effects on everyday life. This research looks at a well-known technique that can be seen on farms all over the country - the use of cottonseeds as a supplemental food source for cattle. Extensive research and experiments have been conducted to test and prove the nutritional benefits of including cottonseeds in a cattle's daily feed. The high protein and energy found in the seeds are beneficial to early lactating cows, feeding cattle cottonseeds can cut down on the cost of feed that farmers can buy especially if they are cotton farmers, and high fat content in the cottonseed oil promotes healthy growth amongst calves. However, too many cottonseeds in a cattle's diet can cause high levels of gossypol in a cattle's system that is highly dangerous. Overall, the benefits discovered can be extremely beneficial to cattle and cattle farmers if used in moderation.

**Presentation Type and Session:** Poster I

### **Darling Yet Daring Dresses**

**Kelsey Boerema, Kelly Conway, Erica Flemings,** and **Lisa Clark**, FTT 358: Fashion Forecasting and Consumer Issues

Faculty Mentor: Professor Keunyoung Oh, Technology

The research we conducted was done to analyze the top trends in dresses for the Spring/Summer 2012 season. Young women in their twenties and thirties are our target consumer with some college or higher level of education. The target customer tends to go to many social outings wearing the latest trends. Our trend research evolved from visiting numerous trend analysis and research services such as WGSN and WWD. These services provided us with up to date

trends and forecasts in the fashion industry. By searching through these services we were able to look at various runway shows and analyze the trends we saw. Color, cut, silhouette, and material were important factors in making our decision. The trends we chose for our board are looks that we felt best represented our age group for this season. We researched where these trends can be found from a variety of low to high price point retailers. These trends are shown by retailers for various styles and lengths. We want to ensure that consumers can find these designer looks at a price and style they are comfortable with. Overall, the trends we found are fashion forward and innovative. With our background in fashion, experience, and knowledge we believe that these trends will be a hit for the upcoming spring and summer seasons.

**Presentation Type and Session:** Poster III

### **Design 101: Events**

**Melissa Wasserman**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

In order to create a successful event, managers follow a series of steps that are central to their planning strategy. The first steps include organizing and designing the event. These tactics lead to the event plan, which include logistics such as site selection. This process is what can deliver the promise for a “memorable event” to the audience, the ultimate goal of every event manager. An example of this process is illustrated by popular sporting events like professional baseball games. Sports stadiums are the venues where baseball games are held. The engineering and architectural design of the stadium is important because it will accommodate hundreds and even thousands of people safely and comfortably. In addition to this, fans can view the game from any seat in the stadium. However, the food, entertainment, safety and other amenities are all part of the fan experience. These are the “other things” that require intense tactical pursuit by the event manager. For this research project I plan to compare and contrast the plans of different types of events. This research project uses the observation method to document a narrative explaining the differences in the design of the events before they are executed. An examination of factors such as time management, resource allocation and dedicated staff are included as variables that may affect the outcome of the audience experience.

**Presentation Type and Session:** Poster I

### **Diapers In the Dumps: A Comparative Analysis**

**Aziza DuBois**, FTT 450W: Issues in the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Disposable products are very convenient, especially since they tend to be used for hygienic purposes. As consumers we may not think about their effect on the environment. Particularly, disposable diapers have been claimed to be third largest landfill item. With

the rise of the eco-friendly/ green movement, these data raises the question about the effect of disposable diapers on the environment. This research explores the fabric content of disposable diapers to create a better understanding of how well the fibers, nonwoven cottons and synthetics, perform when used in diapers as well as its level of biodegradability. The disposable diaper has its pros and cons depending on fiber content because the mechanical and surface properties. The reusable cloth diaper is an alternative to the disposable diaper; however, it is not necessarily the better option. One's consumer lifestyle plays a role selecting the best option.

**Presentation Type and Session:** Poster IV

### **Eco-Chic Weddings: Wearing Killer Heels Without Leaving a Footprint**

**Monique Sayles**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

I have a strong interest in the environment although I did not want to become a diehard crusader for Planet Earth. That said I still want to do my part in helping sustain this beautiful planet for future generations to come, while adding my passion for wedding planning. Wedding planning and being environmentally friendly may not be compatible activities in the minds of most people. However, by keeping a focus on the client's taste and background combined with the event planner's knowledge of eco- friendly products, it may be easier than you think. This research project utilizes a case study method to examine opportunities to plan "green weddings". Three different types of weddings from different price points are designed. A review of literature in the fields of events and sustainability, combined with artistic creativity will reveal ways event planners can make weddings truly eco-chic!

**Presentation Type and Session:** Poster IV

### **The Effects of Off-Season Weddings On the Hospitality Industry**

**Stacy Soto**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

This research project explores the reasons why off-season weddings are beneficial to the hospitality industry. We are all aware of magnificent weddings that occur when the flowers bloom and the sun is shining. But, what about the other seasons throughout the year in a place like Buffalo-Niagara? I have gathered information and data on the economic advantages off-season weddings to this region. More importantly, I have examined their impact on the industry and will report the information as an economic impact study. The conclusion is that off-season weddings impact the hospitality industry in many ways, due to the creation of steady demands for services throughout the year.

**Presentation Type and Session:** Poster III

### **An Exploration of Unisex Skateboarding Apparel**

**Gwendolyn Smith**, FTT 451: Senior Project

Faculty Mentor: Professor Lynn Boorady, Technology

Skateboarding is a male focused sport that is currently seeing an influx of female participants. This project looked at expanding the offerings of skateboarding apparel to not only include women but keep the existing male target market. I wanted the line to convey a simplistic idea of cool that is realistic to the sport and can be used for fashion or for riding around. Taking a cinematic theme and focusing on the image of the "cool" persona, I made a sportswear collection of six different looks: three men's garments and three women's garments. Current and future trend research was completed and current skateboarding active wear was analyzed. I was able to look at existing active wear trends in skateboarding and create new looks for both men and women that are fashion forward while also being functional. Suitable fabrics – both knit and woven - were identified in the marketplace. Fit sessions were held with athletic models to ensure range of motion. The collection is a set of six garments that includes' cropped pants, shorts, skirts, and sportswear top's that can be mixed and matched. The garments offer different looks for both genders but at the same time have similar key pieces to tie the line together. This collection gives both genders new looks in functional clothing suitable for their extreme sport.

**Presentation Type and Session:** Poster V

### **An Exploration of Cotton Production In Turkey**

**Chanel Taylor**, FTT 450W: Issues in the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

With the many features that follow the production of cotton, cotton production in Turkey has created both growth and deterioration in its economy. This research looks at cotton grown in Turkey, which is the 5th largest cotton consumer in the world. Cotton is important to the economy because the major exports of cotton sell to the United States and the European Union. Conditions in the region where cotton is produced a major factor concerning growth of the crop. Farmers sometimes over irrigate which causes massive amounts of water loss and creates drainage and salinity problems. The energy used in production causes harmful effects to both farmers and the environment. The use of patents allowed Turkey to succeed in the textile industry but with competition in China, their production slowed down. Due to insufficient government policies, cotton production sustainability has remained in risk. In this paper, the political and economic aspects are defined as the result in Turkey's cotton production both locally and globally.

**Presentation Type and Session:** Poster III



### The Fabric of Our Lives Has a Story To Tell

**Ciara Wilson**, FTT 450W: Issues in the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

"The fabric of our lives" has a story to tell. We see and hear the cotton commercial on television all the time. We wear cotton or use cotton in some way through our clothes, beauty products, or everyday home items. Cotton was a major force behind the economic rise of American power. Cotton helped America become completely independent and it helped make us who we are today - proud and innovative citizens. As proud as we are of where we are today, there is also history within cotton's past that is not something to be proud of. As history buffs know, over two hundred years ago slaves were used to grow rice, indigo, tobacco, and cotton. This research looked at the history of America as it relates to cotton and the lives of slaves. This study delves into America's past at the millions of enslaved men, women, and children who helped make the United States a great country. In my poster I will have images of daily life of slaves and relevant information about the rise of cotton.

**Presentation Type and Session:** Poster II

### Fair Trade Cotton: A Positive Alternative

**Faith Scheffer**, FTT 450: Issues in the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Is fair trade cotton a legitimate alternative to conventional cotton? My research looked at the government subsidies given to US cotton farmers and how this government benefit to US farmers affects farmers around the world. Conversely, there are many design firms who have pledged only to use fair trade cotton in their garments. While certainly a minority, these innovative companies have been able to find a way to not only be profitable but to help raise the income of families in developing countries. Apparel industry groups are currently making a strong effort to develop supply chains that help the producers and provide fair trade goods to consumers. I take the position that if US subsidies were removed, conditions in third world countries would improve and that we, as consumers, have the power to help make fair trade a reality.

**Presentation Type and Session:** Poster III

### Five Major Road Blocks When Planning Your Event

**Britton Buczkowski**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

There are many roadblocks that can stand in the way of the "big day" of your event if you let them. This research study examines the challenges event managers face while planning events and ranks them in order of importance based on a review of literature. According to the research, one of these roadblocks is securing the right venue. Before an event manager can start planning they need to find the perfect space. The next roadblock managers face are

restrictions associated with the venue choices. There are limitations on caterers, decor, rentals and photographers to mention a few. The driving course gets tougher as the event manager faces the realities of budgets and unanticipated events or "force majeure". The last roadblock is concerned with the audience attendance or participation. This research will make event managers more aware of the barriers they face while driving their event plan from start to finish.

**Presentation Type and Session:** Poster III

### From the Runway To Your Closet

**Alicia Godfrey, Brittany Chapman, Brittany Morgante, and Aziza DuBoi**, FTT 358: Fashion Forecasting and Consumer Issues

Faculty Mentor: Professor Keunyoung Oh, Technology

As a group we put together what we believed the next fashion trends will be in the upcoming season. To gather our information we searched top fashion sites such as style, wgsn, wwd, and other apparel sites. In addition to performing a trend analysis using data found on websites, we also looked at trend reports and simply looked at what was being worn around the campus of Buffalo State College. Our age group is women in their young 20s and we researched bottoms. We have found peplum, mullet skirts, geometric designs, soft pastels, and utility shorts to be big upcoming trends. They were popping up everywhere, from high-end fashion to local affordable retailers. Many of these styles are convenient and can be transitioned for a day to night look. Trying out new styles can be intimidating but if you take a chance on these new trends you will not be disappointed.

**Presentation Type and Session:** Poster II

### The Heart of the Matter: Focusing On the "Behind The Scenes" Aspects of an Event

**Sharissa Isiah**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

Think back to a brilliantly executed event that you recently attended. The atmosphere radiated with anticipation. The decorations, music, lighting, even the staff mirrored the event at hand. You felt comfortable and secure that the event would be a great experience. You were ushered to a nicely decorated table. Soon after being seated, a server was at your table, ready to take your drink order. Less than three minutes later, you had a beverage that delighted you. The event was about to take place. Not only does it turn out to be a great experience, you also cherish this memorable event for the rest of your life. Now think about the opposite scenario. The atmosphere is null and void of excitement. The environment is anemic, and creates an uncomfortable feeling for you and your guests. There is a lack of urgency in service and your needs and wishes are unfulfilled. The event turns out to be a disaster and one you wish to forget. This research study is designed to provide a literature review of activities essential to create memorable events



and avoid disasters within the event planning process. It will answer the question “what goes on behind the scenes of a special event?” The answers will chart a course for event planners that lead to a successful execution of the event planning process.

**Presentation Type and Session:** Poster II

### **How To Raise \$100 Million**

**Ismet Mamnoon**, Creative Studies, **Aaron Lepsch**, Creative Studies, and **Erica Swiatek**, Creative Studies

Faculty Mentors: Professor Cyndi Burnett, Creative Studies and Professor Roger Firestien, Creative Studies

Governor Andrew Cuomo presented a challenge to the WNY region to create a 5-year strategic plan with specific measurable goals. Each region in New York State was to take part in this competition. The winning plan had to be built on consensus from both public and private sector with the objective of promoting growth in the WNY economy. WNY region has a history of failing to collaborate well. Given that history, the chairs of the Economic Development Council chose to embrace a facilitated process. They reached out to every institution of higher education in the region for facilitators. The final team of facilitators was exclusively alumni and graduates of the Creative Studies program at Buffalo State College. The overall approach to managing the flow of information between the 250 participants and the team of 8 facilitators was to appoint a lead facilitator who was responsible for sharing information between the facilitators and the clients. Each facilitator was also responsible for managing information related to the specific groups they were assigned to. The strategic plan developed by the WNY region through a facilitated process won the best plan award from the governor. The WNY region will receive \$100 million dollars with a further \$1 billion commitment for the City of Buffalo. The public and private parties remain committed to working together and have acquired new skills to use in everyday life as a result of the facilitated process.

**Presentation Type and Session:** Oral – Humanities I

### **Into the Loop: Explorations In Fashion Knitwear**

**Anthony Bruce**, Fashion and Textile Design Technologies  
Faculty Mentor: Professor Holly Henderson, Technology

My research involved exploration into the design, development and product lifecycle of fashion knitwear via state-of-the-art technologies. Traditional fashion knitwear is produced by ‘cut-and-sew’ methods, where garment pattern pieces are cut from yardage of knit fabric and sewn together. However, new technologies allow for the design and production of knit garments in one seamless piece. Shima Seiki, was a pioneer in this field and was first to introduce the Whole Garment® technology to the marketplace. These garments are produced entirely in one piece with no additional cutting or sewing needed and almost no fiber waste; making it efficient and environmentally sustainable. The electronic Whole Garment® machines are driven by Shima Seiki’s proprietary design software

SDS-One Apex®, a computer aided design (CAD) system. During my travel and training at Shima Seiki in Wakayama, Japan I received intensive training on the SDS-One Apex®. I visited production labs and sample showrooms to further understand the design of knitwear, as well as its possibilities and limitations. Thru lessons and learning exercises, I built up my knowledge and skill level. Upon my return, I utilized this developing knowledge to create designs for a collection of garments that will be produced on Shima Seiki Whole Garment® machines. The garments will be on display at the Research and Creativity Celebration and will be shown on the runway at BSC Runway 5.0 in April 2012.

**Presentation Type and Session:** Poster V

### **Journey To Beijing: Chinese Culture and Its Effect On Business Practices**

**Lauren Nichter**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Christine Lai, Business Department and Professor Andrea Guiati, Director, All College Honors Program

A successful, effective business person must understand the culture of the country in which they are doing business; to understand a foreign culture, it is necessary to understand the history of the country. On December 27, 2011, eleven Buffalo State Students, including myself, embarked on a two-week study experience to Beijing, China. We engaged in cultural immersion to learn about the culture and history of Beijing China. Using participant observation and face-to-face interaction with local university faculty and the local population, our assignment was to compare our preconceived notions about Chinese businesses and people with our Beijing personal experiences. While in China I was able to study Chinese culture, language, and economics at the Central University of Finance and Economics. I visited cultural sites and businesses in Beijing along with many markets and restaurants that allowed me to experience the day-to-day life of the Chinese people. Exploring and studying in Beijing opened up my mind to a new culture and people and provided insight into the challenges of doing business internationally.

**Presentation Type and Session:** Poster IV

### **Keep Me Comfortable and Safe: The Case For Using Cotton In Protective Apparel**

**Shardae Johnson**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Protective apparel refers to garments that are worn in specific professions to prevent or minimize internal and external bodily harm. Workers employed in numerous professions including paramedics, chemist, marines, fire fighters, electricians, miners, and welders wear these garments. My research looked at the use of cotton in protective apparel. Using 100% cotton is not the most inexpensive option, but it does have a much greater longevity than garments that are constructed out of polyester blends. When cotton is chemically

induced, it increases in its ability to repel water, and becomes flame resistant. In addition to the water repellency, cotton is air permeable, comfortable, has moisture stability, high abrasion resilience, and the ability to detoxify contaminated warfare agents. There are standards that must be recognized under the Occupational Safety and Health Administration which state that the work place must be an area which is safe and dependable, and as long as the clothing standards are met, then the number of work place incidents should be limited. Wearing protective apparel has the ability to save the lives of workers, and also decrease the amount if workers compensation incidents, as well as improve the productivity of the various companies. Examples of protective apparel made from cotton will be presented.

**Presentation Type and Session:** Poster VII

### **Moe'uhane: Go Ahead, Dream On**

**Faith Scheffer**, Fashion and Textile Technology and **Arkeida Wilson**, Fashion and Textile Technology

Faculty Mentors: Professor Elaine Polvinen, Technology and Professor Lynn Boorady, Technology

Moe'uhane, which in Hawaiian translates to "dream", is the creation of five Hawaiian-inspired garments. Aesthetically, the issues to be addressed and researched were twofold: how to go about integrating a Hawaiian theme into current color and print trends and how to technically develop this print/garment grouping into uniquely new print layouts to be digitally printed for sarong type garments as well as exploration of engineered print/garments development. For the Hawaiian-inspired concept, research was conducted on the water life, flora, and volcanoes of Hawaii, and because of an interest in vintage style, vintage elements were incorporated into the concept as well. Inspiration was also drawn from recent fashion trend reports, to keep the designs trendy and up-to-date. Fabric prints were purposely designed by Faith Scheffer to be simple and weather appropriate for the warm climate in Hawaii. Garments were designed by Faith Scheffer and Arkeida Wilson to display the unique prints and colors that reflect the beauty of Hawaii. Adobe Photoshop and Illustrator software was extensively used for fabric development and Optitex was used in conjunction with Illustrator to explore engineered print fabric. After concept and prints are completed, files are sent to an online fabric-printing company. Once the fabrics are printed and received, Arkeida Wilson completes the garment construction. Overall, the goal of this project is to explore new techniques, capture the beauty and grandeur of this dream destination, and convey those aspects through a series of garments.

**Presentation Type and Session:** Poster IV

### **Money and Survival: West Africa Versus the US**

**Kelly Conway**, FTT 450: Issues in the Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

This paper researches cotton subsidies in the fashion textile industry that affect people around the world. This paper goes into depth on moral and ethical issues that farmers in least developed countries like the ones in West Africa go through. Information was pulled from newspaper articles, peer reviewed articles, and government mandated websites. The paper covers what subsidies are, the affects of subsidies in America, how cotton subsidies affect American farmers, affects on subsidies in least developed countries like the ones in West Africa, how it affects West African farmers, what has been regulated to help least developed countries, and what has not changed. Cotton subsidies are a huge issue that many people may not think of on a daily basis, but it affects everyone in the world. It affects a wide range of categories from the farmers' survival and income all the way to how much consumers pay for cotton clothing. The issue is, lowering or eliminating the cotton subsidies for the benefit of least developed countries, or keeping the subsidies for the benefit of developed countries. The paper looks at both sides of the issue and researches what can be done and what has been done.

**Presentation Type and Session:** Poster IV

### **National Multiple Sclerosis Society: An Internship In Public Event Management**

**Carlos Cisneros Vilchis**, Business Administration  
Faculty Mentor: Professor Lynne Scalia, Business

Have you ever wondered what it takes to plan one of those huge community events? Do you know what goes on behind the scenes for planning and determining the overall event's logistics? As an intern with the National Multiple Sclerosis Society Upstate New York Chapter, I have learned first-hand what is involved. The National Multiple Sclerosis Society (NMSS) is a not-for-profit organization that looks to rid the world of multiple sclerosis. The organization raises funds and awareness to fight this disease, which can strike anyone, predominantly people between 20-50 years of age and twice as many women as men. I work directly with the Development Department in planning and executing special events and community outreach initiatives. I have been exposed to fundraising, event planning and management. My poster session will address the background of NMSS, explain the required forms needed to host an event, show how the NMSS uses the funds raised and display the breakdown of NMSS costs of operations.

**Presentation Type and Session:** Poster V

### **Not Just For Fabric: The Many Uses of Cotton**

**Kerri Britton**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

Cotton is a vital material not only for the apparel industry, but in the food industry as well. This research looked into the many uses of cotton outside of the use of its fiber for textiles. Cotton is good for more than its fiber, within its seed lays as much if not greater potential; this potential rests within the oil from the cottonseed. The byproduct of cotton has a significant use and value to several industries. As the economy changes and becomes more demanding, the use of the cottonseed advances. Cottonseed oil is a byproduct of cotton; it is extracted from the seed after the lint has been removed. The United States has consistently shown itself to be the top producer of cotton, primarily in the south. With advances in research and innovation, cotton could soon become the economic vehicle by which many of this countries debts and problems are alleviated. Current research on cotton includes its use to reduce cancer effects among other uses. If any of these new uses come to fruition, a new day is on the horizon, not just for the cotton industry, but for the country.

**Presentation Type and Session:** Poster I

### **Over the Top: Trends Forecasting For Women's Tops In Fall and Winter 2012**

**Janette Salloum, Melissa Wesner, and Aries Thompson**, FTT 358: Fashion Forecasting and Consumer Issues

Faculty Mentor: Professor Keunyoung Oh, Technology

The purpose of this project was to identify fashion trends in women's tops for the spring / summer of 2012. The target consumers of interest are fashion forward young women in their twenties who like to keep up with the latest fashion trends and are mostly students in colleges and universities located in urban areas. Through the content analysis of various fashion magazines, newspapers, fashion blogs, fashion online stores, and fashion-related websites such as WGSN and WWD, a total of five trends in women's tops that would appeal to the target consumer group emerged. The trends identified in this project are sheer tops, crop tops, art deco print, big heart print, and high-low tops. The results of this project will help local small apparel business understand what young college consumers would like to wear for an upcoming season.

**Presentation Type and Session:** Poster II

### **Overusing Pesticides On Cotton Can Harm You, Animals, and the Environment**

**Emily Kostraba**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

Through research we can understand that the overuse and/or incorrect use of pesticides causes agricultural problems and human illness. Globally there are issues concerning the usage of pesticides while farming cotton in developing countries. Pest management is

an important factor that needs to be thought about when choosing and using pesticides. The amount and type of pesticides is harmful to the workers, as well as the surrounding area. Many farmers use sprayers that spilt, splashed, dripped, or leaked when used. Pesticide choice and application issues can produce adverse consequences. In many developing countries, cotton farms do not have the appropriate safety precautions in place with regards to pesticides. Workers are exposed for long periods of time to harmful pesticides. Animals are also being harmed by the use of pesticides. Pesticide run-off from the farms is a major contributing factor hurting animals and the food animals consume. With the urgency to reduce pesticides, new technologies have been introduced into some developing areas where cotton is the main source of income.

**Presentation Type and Session:** Poster VI

### **Pennies On the Dollar: Transformation From Ordinary To Extraordinary**

**Rachel Johnson**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

My research examines the impact of the economy on the planning of events and the scale of events. I will chart the average cost of weddings over a 15 years period. These data will be charted, as well as the average cost of hiring a wedding planner. The research will attempt to establish the benefits of hiring a planner because professional planners are cost-effective and a good use of resources, especially during challenging economic times when people still want to have larger events.

**Presentation Type and Session:** Poster II

### **Pima Versus Upland Cotton**

**Danielle Colvin**, FTT 450W: Issues in the Textiles Industry

Faculty Mentor: Professor Lynn Boorady, Technology

This research looks at the classification system of cotton, specifically Upland cotton versus Pima cotton and analyzes the strengths and weaknesses of each. The classification system for Upland Cotton consists of classer leaf grade and extraneous matter. The classification for Pima Cotton consists of classer color and leaf grades, instrument measurements for color grade, fiber length, micronaire, strength, length uniformity index, and color Rd. As for Upland cotton the instruments currently utilized in the USDA Pima Cotton classification are from the Uster High Volume Instrument system. Color refers to the gradations of grayness and yellowness in cotton. The official Pima color grade that was classified as a human classer, under certain conditions and codes it will show the difference between Upland and Pima Cotton. Classification instruments measure the length in hundredths of an inch. The cotton's resistance to air flow per unit mass is measured to determine micronaire, this is known as cottons fineness. Micronaire and maturity are highly correlated within a cotton variety. Leaf refers to small particles of the cotton plant's leaf that remain in the lint after the ginning



process. The leaf in Upland is graded based on the classer and then are identified as number one through seven, this is based on physical standards. For Pima leaf grades are also determined by classer but are identified from numbers one through six. Reviewing classification between Pima and Upland cotton gives the testers a chance to see the strength of each cotton is and if it is physically stable.

**Presentation Type and Session:** Poster II

### Recommendations For the Enhancement of Buffalo State College Business Department's Curriculum

**Jessica Kelly, Christopher Carden, Joshua Pocobello, Thomas Kielich, Robert DeLoreto, Jordan DiPasquale, Michael Ferrentino, and Nicholas Giambra, BUS 389:**

Organization Theory

Faculty Mentor: Professor Theodore Davis, Business

This study covers the nine universities in the Greater Buffalo area. The purpose of the entire research is to strengthen the curriculum design because it is important to provide students with a quality learning experience in order to succeed. The significance of this study is to ensure students develop their maximum potential while studying at Buffalo State College, because education should seek to develop the characteristic excellence of which people are capable, whereby, Buffalo State College should prepare students in thought and action for their purpose and station in life. This particular paper concentrates on five universities, which includes Buffalo State College. The methodology being used is to utilize the historical data on these five universities in the Greater Buffalo area, whereby, qualitative research is being implemented comparing and contrasting the curriculums. It is found that the Business Department is lacking in several areas as compared to the rest of the universities in the area. Therefore, the stated results are to demonstrate to the faculty the deficiencies in the curriculum and to propose new courses to be implemented in the future in order for the Business Department to serve and prepare their students better to succeed in life.

**Presentation Type and Session:** Oral – Education

### Recycled Cotton: A Step In the Right Direction

**Ashley Grace, FTT 450W: Issues in Apparel and Textile Industry**

Faculty Mentor: Professor Lynn Boorady, Technology

This research focuses on recycled cotton. Knowing that cotton is the largest fiber produced in the world, I decided to focus on the impact cotton has on the textile industry and the environment. Because textiles make up 12% of the waste we find in landfills, my stance on the topic is that there needs to be improvements in the manufacturing process of textiles and how we discard them. My presentation will provide facts, figures and diagrams supporting the need for better waste management for apparel and textiles. I will also share different ways the textile industry is going about this; such

as focusing on recycling cotton to reduce unwanted waste and the benefits that recycling has.

**Presentation Type and Session:** Poster VI

### Recycling Cotton

**Kelsey Boerema, FTT 450W: Issues in Apparel and Textile Industry**

Faculty Mentor: Professor Lynn Boorady, Technology

Recycling cotton is about the positive effects recycling cotton can have in the world. Landfills are where much of the waste from the textile industry ends up. The chemical finishes left on this waste end up harming the environment when left to deteriorate in a landfill. Cotton, being the most widely used fiber in the textile industry, is a great way for companies make a positive impact on the environment. Cotton is a fiber that can be easily recycled and used in various ways such as for home insulation, to clean up oil spills, or to be spun into new yarn. Many companies, such as Cotton Incorporated, have realized its potential and have started recycling campaigns such as "Cotton: From Blue to Green", which recycles denim for use in home insulation. Scraps of cotton that have already been dyed and treated can also be recycled and spun into a new yarn, which not only helps the environment, saves companies money too. To understand the full importance of recycling cotton, I researched the role of cotton in the textile industry, landfills and their effect on the environment, the textile industry's effect on the environment, and the different ways that cotton can be recycled.

**Presentation Type and Session:** Poster III

### Sales Forecasting For Menswear

**Kelsey Boerema and Richard Smith, FTT 350: Fashion**

Merchandising Applications

Faculty Mentor: Professor Liza Abraham, Technology

For this presentation we developed a sales forecast using past data and carrying out trend analysis. Department 315 which sells men's shirts carries four different classifications, Class 10, Class 20, Class 30, and Class 40. Classification 10 consists of moderately priced shirts, Classification 20 consists of high priced shirts, Classification 30 designates designer shirts, and Classification 40 is for fitted shirts. In order to predict the sales for the four classes within the department, we conducted trend research using sources such as WGSN and WWD. Based on the information we found, we decided that there would be an increase in sales in all of the classifications due to the growing interest among men to be well dressed. One of the main reasons men are buying clothing is to look their best in order to get a job and keep it. The most increased styles in our research were the fancy spreads and fancy button downs because those looks were what were seen on the runway and magazines. Class 10 had the most overall increase out of all of the classes due to the fact that it is the most affordable and past data indicated its preference among our customers.

**Presentation Type and Session:** Poster IV

## **Saving the World One Shirt At a Time: The Patagonia Story**

**Sara Geartz**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

In a society where we are constantly being reminded to take care of the environment, sustainability has become a new fashion statement. Many retailers are making the change to organic products, as well as monitoring how much of the earth's resources they are using or destroying in the production of the products. A company that has been at the forefront of this movement since the 1970's is Patagonia. Founder Yvon Chouinard, who started out making rock-climbing equipment in his garage in the late 1950's, has turned Patagonia into one of the largest eco-friendly companies in the world. After realizing how much of an impact the fashion industry was making on the environment, Chouinard decided that he needed to think of a more sustainable way to do business. This research paper will outline what Patagonia is doing to help the environment, why it's so important and how they are getting other businesses as well as their consumers involved in the effort. My poster will outline all the great projects that Patagonia has started to not only reduce their impact on the earth, but also to give consumers the knowledge they need to make a difference.

**Presentation Type and Session:** Poster I

## **The Science of Appliance: The Blogging Intern**

**Danielle Dudkowski**, BUS 378: Business Professional Practice  
Faculty Mentor: Professor Lynne Scalia, Business

My poster session will provide an overview of the marketing internship tasks that I am completing at Marcone Supply. Marcone Supply is a parts distributor for major appliances located in Cheektowaga, NY. Harry Markow founded Marcone in 1932. Over the past couple years, the company's property maintenance, cooling and heating markets have exponentially grown. Marcone currently has 45 locations in the United States not including Canada. The locations include 12 distribution centers and 6 call centers. Marcone covers over 94% of the population with next-day ground shipping. Marcone also ships parts to 117 different countries. These major appliances include dishwashers, ranges, refrigerators and HVAC. My internship responsibilities include creating an inventory database. I use Microsoft Access and identify part descriptions for over 27,000 parts and categorize them by part numbers. I had the opportunity to learn more about social networking. I created a blog to promote Marcone Supply's website. I identify interesting topics and write up a blog and then upload to various blog promotion websites. I am learning so much about social networking and how to market a business through the worldwide web. I create, update contact information for all the branches throughout the US. I have also created monthly surveys, updated contact information for vendors and processed shipping requests.

**Presentation Type and Session:** Poster V

## **Seven Habits of Highly Effective Event Managers**

**Rachel Pettys**, HTR 375: Events Management  
Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

Successful event planners have one thing in common: they must be very organized. The fundamentals of planning an event require extreme amounts of structure and time. There are many things that can get lost in the hustle and bustle of planning an event, so it is very important to stay on task. Many professionals recommend documenting every detail of the event as one effective way to stay organized. The itinerary, key contacts, contracts, banquet event orders, and more are chronicled and saved. This is another activity that is commonly practiced. A capable event planner should also have key communication skills. Other strategies that aid in organization include the development of checklists to assure good follow up. These tools alone may not be enough though. This is why an in-depth look at Stephen Covey's highly acclaimed book, *The Seven Habits of Highly Effective People* is used to explain the correlation between highly effective people who manage the events and their success rate. The poster presentation summarizes characteristics of "highly effective people" who are also event managers in Buffalo.

**Presentation Type and Session:** Poster IV

## **Social Responsibility Is the New Pink**

**Kit Sombke**, FTT 450W: Issues in Apparel and Textile Industry  
Faculty Mentor: Professor Lynn Boorady, Technology

As one of the biggest industries in the world, textiles create a variety of products and generate a lot of revenue. The most popular textile fiber is cotton. Many companies are becoming socially responsible (SR) which may include using organic cotton. My research delved in to the questions of why and how companies are becoming socially responsible. SR companies may range from selling only organic cotton clothing, or basing their brand concept around using only recyclable materials. Current research also indicates how cotton is classified organic and how current production of cotton is reducing the textile industry's carbon footprint. Being socially responsible can range from how one treats their workers, how a company manufactures their clothes, to what they sell in their stores. Just because brands and industry leaders are striving towards becoming socially responsible doesn't mean consumers are also active in the trend as well. My research found that older and educated citizens were knowledgeable about organic cotton and interested in being socially responsible. Educated consumers are less likely to purchase products that are of unknown origin.

**Presentation Type and Session:** Poster VII



### **Stella McCartney and Sustainable Fashion: Can you SUS STAND It?**

**Gabriella Paternoster**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Sustainable fashion has been an ethical movement created with the help of designers to manufacturers to consumers, having intentions to positively impact the environment. Designers such as Stella McCartney have successfully transformed the idea of an ethical product to purchase into a reality. Research on how to influence more designers, improve the supply chain and alter consumer-purchasing behavior is studied to increase the desire and need for sustainable fashion. Cotton, being the most generated fiber, raises issues in the global market and areas for change. Stella McCartney's global influence on sustainable fashion emphasizes the importance of how cotton and other fibers can be processed within the supply chain eco-friendly and ethically. Methods Stella and others are beginning to follow for international change in this field include fair trade practices, innovations in processing fiber technologies and heightening consumer awareness. These aspects within the sustainable fashion industry come about due to the problems with harming the environment, neglecting worker's standards of living and unethical trade. Fashion forward consumers who are aware of this movement pave the path for buyers to follow and help better the future through the "going green" movement. My poster will entail a "going green" theme for sustainable cotton clothing. Stella McCartney's fashion line will be illustrated along with photos of where and how cotton is produced for clothing.

**Presentation Type and Session:** Poster VIII

### **Style Forecasting: Dress To Impress**

**Paula Jacobson, Erika Jackson, Chelsea Randolph, and Nicole Trimper**, FTT 358: Fashion Forecasting and Consumer Issues

Faculty Mentor: Professor Keunyoung Oh, Technology

The trends for spring 2012 include Cut Outs, One Shoulder, Peplum Dresses, Neon Colors, and the Drop Waist tangerine colored dress. All of these trends represent the forthcoming trends for spring 2012. The Cut Out dresses are worn to make an outfit fun and flirty. Many designers used this look for their spring lines. The One Shoulder dress has a sensual attitude perfect for a night on the town. The Peplum Dress is also the must-have trend this season as this style dominated the catwalks. For spring, designers use peplums to add structure to their dresses. Peplum dresses can be printed, lace, or hung low on the hips, all while giving a slight pouf at the waist. The Drop waist and tangerine are two separate trends that together add extra appeal. Vibrant shades of tangerines are key colors this summer and can be seen more often than not. The Drop-Waist is a key dress silhouette for this summer. The trend incorporates a 60s shift, and is a staple dress shape to use as a vehicle for color-blocking. Both this color and trend cohesively work with evening wear, cocktail,

or even while playing sports. Neon colors are another hot trend for this vibrant season. It's all about being colorfully bold with these high voltage neon's. From a walk on the beach to formal affair neon colors are for the bold, classy, and fashion forward.

**Presentation Type and Session:** Poster IV

### **Sustainability In Fashion: What's the Big Deal?**

**Kathryn Jakubowski**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

My research looked to the fashion industry and what the industry is doing, or not doing, about sustainability. The fashion industry is huge, supplying millions of jobs globally. It is an industry that negatively impacts sustainability issues by its model of conspicuous consumption. Apparel is made up of fabric, which is composed of fibers that are woven or knit together. These fibers can be either synthetic or natural, with environmental concerns arising when the manufacturing processes release harsh chemicals into the environment. Eco-friendly approaches to fabric creation are possible by using organic or natural fibers with reduced chemical usage in the manufacturing process. Design and production can also play a large role in the sustainability of fashion. Because fashion is always changing, designers can utilize modern technology to improve fashion products and reduce waste to help produce quality garments and accessories that stay in a consumer's closet longer. All around the world sustainable fashion is becoming a priority, from the wearable recycled art on runways to reusing or reconstructing vintage items with modern twists. Fashion is becoming more sustainable everyday and is a growing trend that shows no signs of slowing down.

**Presentation Type and Session:** Poster VI

### **Texas High Plain Farmers Clearing a Dry Throat Full of Cotton: The Ogallala Aquifer Depletion**

**Rachel Hamerski**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

This research looked into the issue of the Ogallala Aquifer, the primary source of water in the Texas High Plains, and the public outcry that this widely used source of water may not be available for future generations. The future of the Ogallala Aquifer's water capacity has since become a rising concern involving cotton farmers over utilizing the water source for irrigation within the area. The depletion of water in the Ogallala Aquifer will jeopardize the future of cotton production for Texas High Plain farmers. The history of the Texas High Plains has proved that farmers believed the Ogallala Aquifer water source to be plentiful, recently however the supply has become unsustainable for future generations. Public attention to this issue pressured water districts to create rules and regulations to help

the aquifer remain active for future generations. The path to efficient use of water may be a time of hardship for Texas High Plain farmers as finding the funds to accommodate the rules and regulations of water conservation will prove difficult. The technological advancements of new irrigation techniques help support the conservation of water. The end result will lead to a brighter future for water and an enhanced cotton-harvesting environment for the Texas High Plain farmers.

**Presentation Type and Session:** Poster VI

### **This Stress... Is a Mess!**

**Danielle Kane**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

An event planner has an enormous responsibility for the success of high profile events. Publicizing the event, reserving locations, halls and equipment, networking with industry professionals, working with artists and other entertainers, managing event budgets, negotiating contracts and fees, generating innovative ideas and overseeing the set-up of a venue are some activities that require the attention of the event manager. This study documents how managers cope with the demands of the job that, at times, manifests itself as stress. I made and documented observations as part of the fieldwork I completed in the course. I noted managers practicing effective time management, relying on organizational tools such as timelines and run sheets, using activity logs, demonstrating rational and positive behavior, and having knowledge of their impending workload. This project synthesizes that information and illustrates the ideal skill set event managers need to overcome the stressors of the job. This presentation serves as an excellent resource to event managers who want to know how to cope with stress on the job.

**Presentation Type and Session:** Poster I

### **To Spray Or Not To Spray: Pesticide Use In the Production of Cotton**

**Kendra Folsom**, FTT 450W: Issues in Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Pesticides are a necessary part of the cultivation of cotton. The traditional method includes multiple applications of pricy, harmful chemicals. The development of a new way to combat insect problems seems to have been found. This research looks in to the use of biotechnology created Genetically Engineered (GE) cotton that already has the insecticide present inside the crop resulting in less frequent spraying. The farmers are safer, the cultivation area has expanded even to areas with high insect problems and the production cost has been reduced. This new technology is under constant supervision since it has been made available. With more studies in multiple countries there is now documentation to look at to see if the benefits are actually as extensive as originally hoped. Whereas most studies still report that the crops are less harmful, now

there is also talk of effecting non-targeted insects, less significant crop yield than predicted, and lateral gene pollination creating super weeds.

**Presentation Type and Session:** Poster VII

### **UNIQLO: An Innovative Fashion Company**

**Fatimah Muhammad**, FTT 455: Issues in Merchandising and Fashion Retailing

Faculty Mentor: Professor Liza Abraham, Technology

This project examines Innovation in a fashion company, UNIQLO. Innovation is creating a new method, idea, or product or improving or modifying existing ones. UNIQLO is a Japanese clothing company who's motto is clothing for all, universal brand for men and women. An innovative aspect of the company is the show-stopping interactive video produced exclusively for the company that features models walking down a runway, viewers can click on a piece of clothing they like and be taken to a purchase site. UNIQLO transforms simple designs and makes them current. The company has unique store layout and floor plan, functional merchandise and interesting and dynamic selling techniques. This company is also taking a lead in promoting a green lifestyle.

**Presentation Type and Session:** Poster IV

### **The US: King of Cotton**

**Allison Bornemisza**, FTT 450: Issues In the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Go into any closet just about anywhere and what will you find? You will find that the majority of the apparel in that closet is made from cotton. With cotton being a staple in just about every ones wardrobe, it is no shock that it is a booming industry not only in America, but is taking place all over the world. The United States is the third largest producer of cotton, right behind China, who sits at number one, and India right behind China at number two. Throughout my research of the United States cotton industry I found out exactly what sets it apart from that of the other cotton producing countries. There are different laws and acts in place in the United States that regulate the trade of cotton as well as different systems and techniques used to produce the necessary crop needed. Apart from the legal and mechanical issues, there are also environmental issues that affect cotton production. American cotton farmers are no strangers to concerns such as the threat of boll weevils as well as the public's recent out cry for the reduction of pesticides and other harmful substances in the production progress. All of these factors among others affect the American cotton industry and the success of its farmers.

**Presentation Type and Session:** Poster I

### Uses of Cotton In the Medical Industry

**Crystal Kosmider**, FTT 450: Issues In the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

Cotton is a major fiber used throughout many industries including the medical industry. In the medical industry cotton is used in a plethora of diverse products including cotton balls, cotton swabs, scrubs, and medical gauze. Due to cotton's properties that include high absorbency, soft hand, excessive pliability, machine washability, resilience, easy care, and its ability to be sterilized, cotton is favored in certain products over other natural or manufactured fibers. Although cotton is a very beneficial fiber in the medical industry due to these properties, there are some issues with using it as well. In order to reduce inefficiency in using cotton in the medical industry, there are constant advances occurring in both the textile and medical field. Explained thoroughly in this research paper is the following issue: "What is cotton commonly used for in the medical industry, and what are the pros and cons to using cotton over other fibers?" After reading my poster you will be able to better visualize products cotton fibers are used in, why cotton is used over other fibers, and advances occurring in cotton in the medical industry.

**Presentation Type and Session:** Poster I

### Venues On the Go

**Julyette Guerrero**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

Cruise ships are venues that play host to a wide variety of events. Oasis of the Seas is one of the largest, most luxurious cruise ships in the world. Broadway shows, elaborate plays, sporting competitions, concerts, culinary lessons, and cultural and educational programs are some of the types of events that provide entertainment for passengers. The Oasis of the Seas is known for their decor which features original artwork, almost a floating museum. Other top names in the cruise ship industry are Freedom of The Seas, Queen Mary 2, Diamond Princess, Carnival Conquest, and Grand Princess. This research examines the importance of events as a motivator to purchase a luxury cruise in comparison to other motivators found in a literature review. The result is a list of events featured as part of the entertainment venues on the top cruise lines in the world. The research will inform tourism professionals as to the importance of events to the cruising passenger.

**Presentation Type and Session:** Poster I

### Wait A Cotton Pickin' Minute, It's King!

**Brittany Chapman**, FTT 450: Issues in the Apparel and Textile Industry

Faculty Mentor: Professor Lynn Boorady, Technology

The term "King Cotton" was first coined in the early nineteenth century. The content of this research was to find exactly why cotton was "King". The cotton growing industry was stimulated by the

introduction of Eli Whitney's cotton gin in 1793 making it easier to separate the seeds from the cotton boll. This invention allowed for faster processing of cotton that led to greater demand to grow cotton. Southern landowners, seeing that there was profit to be made, planted more cotton. This, in turn, created a demand for workers, namely slaves. In the 19th century, Southern states grew the cotton and Northern states produced the cotton fabric. England became a major consumer of this cotton and millions of bales were exported each year. This poster will delve in to the term "King Cotton" and a variety of images and charts will help the viewer understand the link between cotton and slavery in the south.

**Presentation Type and Session:** Poster III

### The Wedding of a Lifetime

**Kelly Weise**, HTR 375: Events Management

Faculty Mentor: Professor Kathleen O'Brien, Hospitality and Tourism

This descriptive research project outlines the activities and costs of destination weddings. Destination weddings aren't as expensive as everyone thinks and they are beautiful. The couples "to-be" are able to relax and take a mini-vacation with their closest family and friends. Brides don't have to worry about running errands the day before the wedding, conversely, they are able to relax and enjoy themselves. Many hotels and resorts offer all-inclusive hotel packages and services for these travelers. There are minimal expectations of the bride and the groom, one of which includes room reservations for their guests. These weddings can be less expensive than having a traditional wedding reception. There may be a need however, to enlist the services of a wedding planner. This person will help with vendor contracts and handle the thousands of details and decisions associated with planning a wedding. A common but necessary detail associated with destination weddings out of the country is to facilitate the process for travel documents such as passports and a local marriage license. Destination weddings are beautiful and are sometimes overlooked by the bride and groom. The result of this research is a diagram of the planning process for three destination weddings and the costs associated with them in comparison to a traditional wedding.

**Presentation Type and Session:** Poster I

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# ***Computer Information Systems & Technology***

## **Ackermann: Steering You In the Right Direction**

**Matthew McCall, Daniel Martino, Ken Norwich, and Josh Monaco**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Buffalo State College participates in an international Baja vehicle design competition with more than 100 other colleges. The Society of Automotive Engineers Baja vehicle is a small, off road vehicle that is designed, built, and raced by students from hundreds of universities around the world. Design involves major components such as drive train, suspension, braking, and steering. This year the focus is on the steering system. Previous designs utilized front wheel steering, and this led to poor response and premature tire wear. As the vehicle turns, the inside tire angles more than the outside tire because the arc radius is smaller on the inside tire when compared to the outside tire. This ratio of the inside tire compared to the outside is known as Ackermann. Design calculations will be performed on the vehicle, with an all wheel steer system. The BSC team expects to be the only team competing with an all wheel steer system with 100% Ackermann. Our method of building and testing this system will involve multiple design calculations to find the theoretical 100% Ackermann geometry for the vehicle for various front to rear steering ratios. A system will be built which allows us to vary the front/rear steering ratio, and build multiple mounting systems for the steering racks that will allow us to vary the Ackermann effect.

**Presentation Type and Session:** Poster V

## **Ball Valve Pressure Testing**

**Richard Simonetti and Richard Baumann**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Advanced Thermal Systems (ATS) is a local company well known for thermal expansion solutions. They have been producing ball joints and slip joints for over 40 years. Forming, machining, and welding of all product lines are performed at the Lancaster facility. A less known product line from ATS is their ball valve line. ATS is currently in a contract with Praxair to provide a large quantity of bronze 2-inch ball valves that have been pressure tested to their standards. Praxair, a leader in gas separation, requires pressure testing above 900 psi, which exceeds the current ATS pressure test capabilities. The current test stand can test up to 100 psi with compressed air. This is done by plugging the ball valve shell at both ends with a stopper and submerging it in a water bath. Compressed air is then pumped in through one plug, which has an inlet bore, until desired pressure is met. Intent of this project is to design a new system capable of testing these valves to much higher levels of

internal pressure. Machine must be capable of testing pressures up to 900% greater than the current design. The test stand should be designed for strength and efficiency, with safety in mind. Any new design can be an improvement of the current process, or a different process entirely. Additionally the test stand may employ the use of an incompressible hydraulic fluid in order to reach high pressures. Cost must be kept within a budget of \$5,000.

**Presentation Type and Session:** Poster VIII

## **Bearing Frosting On FS Elliott Compressors**

**Jonathan Kress and David Stabel**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

FS Elliott is a leading manufacturer of oil-free centrifugal air and gas compressors. Their compressors deliver 100% oil-free air for the needs of their customers in the food, beverage and pharmaceutical industries. They are experiencing a problem known as bearing frosting on the bearings of the pinion shaft of the compressors. Bearing frostings is the phenomena of electrical discharge grounding out through the bearing and destroying the bearing surface. Induction motors are used to drive the compressors that in theory have the potential to leak stray currents through the compressors, and damage them. There is also a possibility that an electrostatic charge is building up within the system from high velocity moist air or from friction. Through experiments that isolate the variables that can cause an induced voltage, the source of bearing frosting will be determined. Once the source is determined, a solution will be provided to eliminate product failure and reduce repair costs.

**Presentation Type and Session:** Poster VI

## **Block Game Engine With Multi-Language Options**

**Kenny Chen and Steven Yang**, CIS 435: Programming With Python

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

As gaming industry is getting bigger in today's world and games are being played on many different platforms and countries, our research will investigate into creating a basic block game engine and various other frameworks using Python programming language. We will be creating and designing a bouncing object game. Our study will show how to program a block game engine. There are many different types of block games; in our project we are trying to implement the block game in different natural languages (like Chinese or English) with a total customized menu. Among the tools we researched we found Pygames, a cross-platform set of Python modules designed for writing video games, to be the most effective tool to create the game engine. The objective of this game framework is to knock out every "block" in its place without letting the "ball" fall or let the "blocks" run through the screen. There will be many different speed variations including the paddle speed, block speed,



and ball speed. There are also different levels of play. We hope to cater to the needs of different players and in the future expand into different platforms. We want to make it a fun and enjoyable game engine for everyone.

**Presentation Type and Session:** Poster VII

## Bonnet Fixture Design

**Greigh Gruarin**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Xylem is an innovative engineering and design company formed in 2011 as a by-product of the ITT Corporation. This facility's concentration consists of developing and implementing highly efficient water technologies for residential and commercial areas across the globe. At the Cheektowaga, NY location they manufacture and distribute a wide range of heat exchangers yearly, a large portion being shell and tube design. Cooler bonnets, a component of shell and tube heat exchangers, function as a flow control device on the tube side of the heat exchanger. The current machining process for small cooler bonnets requires excessive overstock that acts against the lean environment Xylem strives to achieve. Design objectives demand manufacturing to be done at a single machine with limited setup. Fixture attributes such as accuracy, ease of setup, and repeatability will be analyzed through cause and effect matrixes to select the most appropriate design. The selected fixture will deliver these objectives in a way that capitalize on lean manufacturing and safety protocol. All the stated objectives and constraints will be delivered in a workable fixture design to Xylem.

**Presentation Type and Session:** Poster VII

## Compensate For Condensate: Removing Water Vapor From Centrifugal Air Compressors

**Scott Bender, Kevin Sayers, and Jerry Benbenek**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Water vapor is a common problem in industrial size air compressors and can inflict major damage to components within the compressor if it is not properly addressed. FS-Elliott, a manufacturer of oil-free air and gas compressors that are used in the food, beverage and pharmaceutical industries where clean air is a necessity, is looking to eliminate or reduce water vapor in their compressors. The problem occurs primarily between the first and second stages of compression. As air passes through the first stage of compression, temperature and pressure are increased; this air is then passed through a heat exchanger to cool before it enters the second stage of compression. Cooling the air creates a high level of condensate that is carried into the second stage of compression, causing damage and corrosion to the second stage impeller and other components. After taking into cost and effectiveness into consideration, the final design paths of cyclone separation and

alterations to the first stage outlet pipe will be researched and further pursued. Upon completion of this project, FS-Elliott will be in a better position to address the condensate carry-over problem in all their compressors.

**Presentation Type and Session:** Poster VIII

## Composite Metals

**Josh Vail and John Wilson**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Composite metal structures are widely used in a variety of different. Rigidized Metals is currently designing their own composite metal. Composites can provide structural stiffness, sound damping, thermal resistance, and other properties designers find appealing. Depending on the application, there are certain design inputs needed to achieve the desired effect. Composite metals consist of, at least, two sheets of metal bonded by an adhesive. Dissimilar metals may be used as well as metals with varying textures. The goal is to research the best combination of metal, pattern, adhesive, or core material to achieve several different characteristics. This will be followed by solving various issues that can occur during the manufacturing and fabrication process. The best composite structures for each of the desired uses will need to be tested to make sure they meet the desired specifications. This will demonstrate the mechanical properties of the composite including: tensile strength, compressive strength, shear strength, stiffness, sound damping, energy absorption, and thermal conductivity.

**Presentation Type and Session:** Poster VI

## Cyclone Separators

**Stephen Kosinski**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Currently Xylem Inc. manufactures cyclone separators that range from small sizes that are a few pounds, to very large ones. In the last stage of manufacturing the cyclone separators have a final coat of protective paint that is applied to them. A problem arises when the transportation pallet is utilized for transporting finished stock to the shipping area. Many times larger cyclone separators are not secure on the transportation pallet. This in turn can lead to the separators falling off the pallet, damaging the finished product and in some cases injuring employees. The most obvious way to solve this situation is to design a transportation pallet that secures and stabilizes the cyclone separators so they can be safely transported. My designs for the new pallet will be presented and described.

**Presentation Type and Session:** Poster VIII



## Deflection, Thermal Expansion, Impact and Rigidity of Textured Metals

**Josh Vail**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Rigidized Metals specializes in textured metals for industrial and home use. Textured metals serve a variety of purposes, including, aesthetics, structural stiffness, sound absorption, and thermal resistance. Different patterns will result in different deflection, thermal expansion, impact resistance and rigidity. This is important when considering the best pattern to choose for a certain application. Rigidized is looking to develop a test procedure to evaluate the deflection, thermal expansion, impact resistance and rigidity of various textured metals. Measurements will be made for a range of textures, gauges and materials. An evaluation of test results will be made to determine which patterns perform best under various design conditions.

**Presentation Type and Session:** Poster VII

## Design of a Rack System For a Solar Panel

**John Wilson**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

A rack-mounted system will be designed for the purpose of holding a solar panel. Some major goals of the rack system for the solar panel are that it must be completely weatherproof, it must mount on the eve of a building or on the ground, and the system must also be durable and cost effective. Project goals for this design will be to find the most cost effective solution that is safe and easy to install. Frames are required to be stainless steel and must be adjustable to accommodate different size solar panels. A racking system will be designed and then built. As part of this study an economic analysis of the design will also be presented.

**Presentation Type and Session:** Poster VIII

## Design of a Remote-Controlled Friendly Feline Enclosure

**Jonathan DeMay**, Electrical Engineering Technology

Faculty Mentor: Professor Stephanie Goldberg, Technology

I designed a portable remote-controlled enclosure that can humanely trap a domestic or feral cat. The system includes an embedded microcontroller and transceiver, which allows a user to position the enclosure door via a wireless control lever. In response to feedback from feline rescue personnel, I added a feature that senses the cat's presence at the rear of the trap to automatically close the door. The initial design called for the reconfiguration of an off-the-shelf feline carrier, but I decided to build our functional prototype from scratch. This allowed me to customize the enclosure dimensions to meet the recommendations of feline rescue personnel. To see the design go from a piece of paper to a realistic design in the period of a summer is very exciting considering that I had to use electrical, mechanical, and electro-mechanical engineering to complete it. I plan to bring the prototype to several pet stores

and local groups to see if there is an interest in the design on a commercial level. Future work could include a Product Engineering phase in which the prototype can be refined to incorporate affordability and reliable operation under extreme weather conditions.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology

## Development of Automated Torque Wrench Tests For Innovative Security Products

**Shawn Dunn** and **Alexander Henry**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

McGard is a company based out of Orchard Park, New York, and well known for their quality-engineered products in the automotive field. Their wheel locks and lug nuts have provided major car companies all over the world with anti-theft protection since the 1960's. To produce these quality products, extensive product testing is required. One of the tests performed is an offset torque test. Improvements to this test include safety and precision. An automation process will be designed using multiple technologies such as pneumatics, hydraulics and/or electronics. The purpose of this project is to design, analyze and fabricate a safe, cost effective and accurate offset torque test. In order to accomplish this task, the designs will be computer controlled with live torque and angle output display. This data will be used to further improve the products produced by McGard.

**Presentation Type and Session:** Poster VII

## Development of National Teaching Standards For Technology Education In the US and Its Effect In New York State

**Dan Penski**, INT 689: Research Design and Methods

Faculty Mentor: Professor John Earshen, Technology

Technology continues to advance at a rapid pace. The influences of technology have become apparent in every aspect of our society, including our educational systems. It is often said that in order to compete effectively as a nation, America must prepare students who are able to operate effectively within a technologically competitive world. Not surprisingly, there is a growing public expectation that as technology advances, America's classrooms will keep pace. Across the country, Technology Education (Tech Ed) teachers are charged with ensuring that their students are technologically literate. The objective of this study is to characterize the impact of technological changes on the development of a national Tech Ed curriculum, and to enumerate the advantages of developing national teaching standards for Tech Ed to promote and achieve technological literacy. This study will examine the extent of effect that national Tech Ed teaching standards are likely to have on student learning, and more importantly, teaching practices. This study will be limited to the State of New York. Data will be collected from current high school teachers and educators as well as other professionals within the field. Primary

fieldwork for this study will be collected through a teacher survey, personal interviews, and classroom observations.

**Presentation Type and Session:** Oral – Education

## Exploration of a Green Energy Source

**Scott Bender, Kevin Sayers, and Jerry Benbenek**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Thermoelectric technology is used to convert a temperature difference into electricity. This technology is based on the Seebeck effect where two metals are joined to form a closed loop, when a temperature difference exists between these two metals an electrical current is formed. A Caframo Ecofan that harnesses thermoelectric technology has been salvaged to use the generated electricity. The electrical output will be measured at various temperature differences to find the optimal electrical performance. Various applications for the use of the generated electricity are being explored. The most promising of these include lighting systems that incorporate LED technology due to their low power consumption. A simple design setup will be constructed to illustrate the use of the produced electricity in a lighting system. This technology can be used to harness wasted energy in the form of heat, making this a green energy source. Possible industries where the proposed lighting systems could be used include automotive, aerospace and building power systems.

**Presentation Type and Session:** Poster VI

## The Future of Technology Literacy

**Charles Voorhees**, INT 689: Research Design and Methods

Faculty Mentor: Professor John Earshen, Technology

Technology Literacy is an important issue to future US economic success. This thesis examines the validity of the Technology and Engineering Literacy Framework set forward by the National Assessment of Educational Progress (NAEP). The research goal is to develop a deeper understanding of this influential doctrine on the future of Technology Education. One area of focus is to determine the extent to which the assessment of Technology Literacy will be linked to emerging teacher performance/appraisal methodologies. The paper will feature an in-depth review of the published NAEP Framework, and other key works that address Technology Literacy. A questionnaire will be administered to poll current Technology Education teachers regarding both their understanding of the NAEP framework and reaction to the proposed teacher assessment. This research project is expected to provide a critique of the NAEP Framework, as it currently exists, and to buttress the argument that assessment of every student's Technology literacy is a much-needed component of educational improvement at the secondary school level. It is hoped that this study will provide meaningful feedback of NAEP-related guidelines slated for implementation in 2014.

**Presentation Type and Session:** Oral – Education

## High Speed Web Development Using Django and South

**Franklin Kumro Jr.**, CIS 435: Programming With Python

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The field of Web Development has grown very rapidly over the last 10 years, with new technology being born every day. Newer frameworks boast high-speed development and my research examines those claims made by the authors of the Django framework. Django and South will be used to create a web application and to examine the speed of development. A web application would need to be created in order to immerse myself deeply into the framework. This web application would allow a user to manage their account, add vehicles to their garage, and post pictures/updates about progress on automotive projects. In order to mimic a full development stack I would use South to manage schema migrations and the Django ORM to utilize built in functionality like the administration panel and user classes. Celery would also be used to off load blocking IO from the webserver when images would need to be operated on. Unlike other frameworks, the documentation provided by the Django has been a vital asset during development process and due to this I was able to add features at a faster rate compared to other frameworks. Lower overhead, logical configuration, automatic administrative scaffolding and the power of Python aided in such improvements.

**Presentation Type and Session:** Poster VII

## Increasing Technology Education Enrollment Through Project Lead the Way

**Gary Grant**, INT 689: Research Design and Methods

Faculty Mentor: Professor John Earshen, Technology

Project Lead the Way (PLTW) is a widely accepted pre-engineering curriculum offered by school districts across the US. The purpose of this study is to examine the impact of PLTW on enrollment in high school Technology Education classes. While PLTW is highly regarded nationally, its impact on overall enrollment in Technology Education classes (in the schools that adopt the program) is not well understood. This study will compare data regarding the percentage of students who enroll in technology education classes in schools that do, and in schools that do not embrace PLTW. The study will use student participation data collected from a cohort of selected schools. The study aims to determine the degree of statistical correlation between implementing PLTW and increased pupil participation in high school Technology Education classes. It is expected that a strong statistical inference regarding the impact of PLTW on Technology Education enrollment may be enabled by the study findings.

**Presentation Type and Session:** Oral – Education

## Information Assurance Through Cyber-Security: Building a Better Mouse Trap?

**Richard Frasca**, INT 689: Research Design and Methods  
Faculty Mentor: Professor John Earshen, Technology

Contemporary cyber threats to America may be far more significant in scope and impact than the World Trade Center attacks of 2001. Today, the United States is faced with the dual challenge of ensuring cyber security while preserving individual privacy rights. The problem is how to balance these two important needs. Proposed solutions are often complex and costly. We want online transactions to be private and safe from hacking, but we don't want too much government intervention. This study will investigate the trappings of contemporary cyber security - with an eye toward evaluating strengths and weaknesses of current, and possible future, 'mouse traps'. Effective solutions are often complex and costly. We must therefore identify solutions that are technically savvy, user friendly, and flexible. This presentation will identify major areas of concern, examine current methods of identifying cyber threats, identify new methods of attacking cyber threats, and proffer a forecast of the future of cyber security.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology

## Interference Fit Analysis On FS Elliott Compressor Impellers

**David Stabel** and **Jonathan Kress**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

FS Elliott is a leading manufacturer of oil-free centrifugal air and gas compressors. Their compressors deliver 100% oil-free air for the needs of their customers in the food, beverage and pharmaceutical industries. In order to pressurize air, a centrifugal compressor first accelerates the incoming air with a rotating impeller. The accelerated air is then rapidly decelerated across a radial diffuser. By decelerating the high velocity air, the diffuser converts the air's velocity into pressure. This process usually happens 2-3 times in order to reach the desired pressure. During the compression process the impeller is under multiple forces: axial and torsional loads due to the air across the impeller blades and an opposing torsional load due to the bull gear which spins the pinion shaft that the impeller is on. In order for the impeller to not slip on its pinion shaft, the impeller is attached to the shaft with an interference fit. An Interference fit is the fastening between two parts achieved by friction. As the impeller spins the different forces on it, causing it to expand as it starts to lift off the impeller shaft. When this happens, the frictional force of the interference fit decreases. To aid in the design of the compressors, a program was designed to calculate the amount of interference fit required using various input values specific to each compressor.

**Presentation Type and Session:** Poster VII

## An Introduction To Business Intelligence Using Microsoft SQL Server 2008

**Murray Richburg**, CIS 442: Advanced Systems Applications  
Faculty Mentor: Professor Barbara Sherman, Computer Information Systems

Many businesses and organizations are turning to Business Intelligence (BI) to help them make fast and accurate decision with regards to their industry. BI is an extensive subject and covers multiple business practices and technology topics. In this research project I analyzed many of the important components of BI such as: data warehousing, ETL, OLTP and OLAP, Multidimensional Databases, Data Mining, Analysis Services and Reporting Services. BI has reached a new level of significance for decision makers in business. Capturing information from customers, employees and business operations has always been a part of running a business, but getting the right information into the right people's hands in a format that allows them to understand the data quickly has become vital for growth and staying competitive. Microsoft SQL Server 2008 is the company's enterprise level database system solution. Production includes a "suite" of products that include the database engine itself, SQL Server Reporting Services, SQL Server Integration Services and SQL Server Analysis Services — Microsoft's data warehousing solution. Although each of the products are designed to work separately — combined they provide to basic system requirements for BI. The research starts by taking a brief look at the history and origin of business intelligence and the Microsoft Corporation's foray into the business intelligence market before driving deep into essential components. Since BI is somewhat of a corporate "catch phrase" and most business has a need for a BI solution, this research provides an introduction to a complex and advanced computer science topic.

**Presentation Type and Session:** Poster VIII

## Knock To Unlock Your Door

**Benjamin Furco, William White, Barbara Kiliszek**, and **Thomas Newcome**, ENT 465: Electrical Design  
Faculty Mentor: Professor Stephen Andre, Technology

A signal processing algorithm was develop to release a door latch. The algorithm in the microcontroller selects one of two methods of signaling. A predefined knock pattern stored in memory is used in one method. This stored pattern is compared to one that is knocked on the door. A remote-control radio signal sent to the micro controller is used in the second method. Two different radio signals can be sent from the remote. One signal results in the door latch releasing. The knocking system was designed to be enabled or disabled with the other signal. The remote control provides visual feedback with an LED. The algorithm was also written to override the knock analysis routine if remote commands are sent.

**Presentation Type and Session:** Poster V



## Manufacturing Heat Exchangers

**Stephen Kosinski**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

The current machining processes for small cooler bonnets is a bottleneck in the production of heat exchangers at Xylem. The process involves two machining centers with manually oriented fixture components. The current process increases the manufacturing costs and decreases component accuracy and process repeatability. The objective of the design project is to minimize manufacturing time and maximize the accuracy/quality by redesigning the manufacturing fixture. The proposed design consist of a template that would be placed on the chuck and allow the aligning of the bonnet for milling and tapping.

**Presentation Type and Session:** Poster V

## McGard Spline Drive Lug Nut Analysis

**Shawn Dunn** and **Alexander Henry**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

McGard is a company based in Orchard Park, NY, and well known for their quality-engineered products in the automotive field. Their wheel locks and lug nuts have provided major car companies all over the world with anti-theft protection since the 1960s. Traditionally, McGard's locking nuts have an engraved flower design on the top of each nut for a key to fasten in. However, with increased demand for a lighter and less expensive nut, the company has begun developing a spline drive nut. As McGard had to do with their previous nuts, extensive stress testing is required to ensure reliable and repeatable installation and removal of the keys and nuts. The task of this project will be to calculate the torque required to produce product failure and the method at which it failed. These calculations will be performed on sixteen different patterns of spline drive nuts.

**Presentation Type and Session:** Poster VI

## Meeting Needs: New School Construction and the Technology Education Classroom Facility

**James Kingsboro**, INT 689: Research Design and Methods

Faculty Mentor: Professor John Earshen, Technology

Improved classroom design has been a priority consideration for decades as schools are constantly in some process of change, expansion, or even contraction. In 2004, The Buffalo City School District (BCSD) began a "systemic and progressive" ten-year Joint Schools Construction Board reconstruction initiative. An estimated \$1 billion will be spent in the coming years on virtually every school building in the District. Decisions made over the near term will impact students and faculty members well into the 21st century (JSCB, 2004). One of the persistent problems plaguing technology educators has been the inertial resistance to changing classroom practice (Zuga and Lawrence, 2005). As the need for building technological literacy becomes more evident, it is becoming more

evident that Technology Education classrooms must reflect current attitudes and progress. The research focus of this study addresses the following question: How will the BCSD's reconstruction initiative (JSCB) provide the most advantageous classroom environment for Technology Education? This project will examine BCSD's approach to modernize its middle school technology facilities via close examination of established documents, strategic proposals, and targeted interviews. Three detailed case studies will be conducted, and these will give the investigator a better understanding of the current stance of Career and Technical Education in the City of Buffalo. The ultimate aim of this paper will be to propose revisions, as appropriate, and to contribute to the current reconstruction plan.

**Presentation Type and Session:** Oral – Education

## Organic Waste To Energy: A Renewable Energy Source

**Ahmade Shah**, INT 689: Research Design and Methods

Faculty Mentor: Professor John Earshen, Technology

The Kingdom of Saudi Arabia produced 17 million tons of municipal solid waste (MSW) in 2011. With a population of about 28 million, the Kingdom produces approximately 1.67 kilograms of waste per person each day. For the most part, this waste stream is handled by disposal in landfills and by incineration. MSW disposal is an enormous problem that could, with a careful re-thinking of methodology, be turned around. For example, MSW could become an important new source of energy if it is treated in the right way, thus, reducing the total dependence of the country on fossil fuels to generate energy. The aim of this study is to evaluate both well-accepted and emerging waste disposal methods. These methods include landfill, thermal technology, biological reprocessing, hydrolysis and mechanical pre-processing. This research is conducted with an eye toward identifying an acceptable set of alternatives to prevailing MSW disposal methods in Saudi Arabia.

**Presentation Type and Session:** Oral – Science, Mathematics and Technology

## Process Development For Changing Pressure Connectors In Heat Exchangers

**Michael Wutz** and **Steve Mancuso**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

At Xylem, braised pack heat exchangers are pressure tested after production. Xylem is located in Cheektowaga New York, and is a major distributor of many different types of heat exchangers. Many different size connections are utilized on the heat exchangers that need testing. Because of this there are also several different connection sizes for the pressure testing system. Currently, it takes two people to replace the connectors on the plates for the pressure testing system. One person is needed to hold open the plates so the other person can then remove and replace the connections. To eliminate the need for a second person on this task a tool will be designed that can hold the two plates open while the connections

are changed. This tool will need to be easy to operate and have enough strength to resist the closing force of the springs that are attached to the plates to keep them closed during the pressure testing cycle. Several design ideas are being considered. The design that is determined to be the safest, most reliable, and most cost effective method will be produced and tested.

**Presentation Type and Session:** Poster VII

## Python Or Javascript? You Decide

**Alex Hazlett** and **Shawn Dunn**, CIS 435: Programming with Python

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The goal of this presentation will be to compare and contrast the differences between two powerful and widely used programming languages, Python and JavaScript without implementing any other library programs. The main difference between these two programming languages is that Python is used mainly in back-end development while JavaScript is directed more towards front-end display. The methods by which these two languages will be compared is by creating a tic-tac-toe game in both languages, and then compare and contrast the two programs side by side. Not only will the actual written code be compared but the gameplay and the layout of the game will be compared as well. This will ultimately show how the simplicity of Python differs from the more strict syntax of JavaScript. The biggest issue with using JavaScript rather than Python is the fact that JavaScript must be enabled on the user's machine in order to run it. This research project will provide valuable information about deciding which type of language one would prefer to design and implement a game.

**Presentation Type and Session:** Poster VII

## Solar Water Heating In Buffalo?

**Marcus Samerson**, Electrical Engineering Technology, **Sheldon Anderson**, Electrical Engineering Technology, **Victor Rivera**, Mechanical Engineering Technology, and **Christopher Holzmann**, Mechanical Engineering Technology

Faculty Mentor: Professor James Mayrose, Technology

This project involves heating a standard hot water tank through solar thermal technology. This system is different from standard solar power applications in that it does not produce electricity; it directly heats the water in an open recirculation system. The recirculation system is considered an open loop system because the fluid flows through the solar collector, where it is heated, and back through the water tank where the heat is transferred to the water in the tank. Our mission is to simulate the heating effect of the sun under various lighting conditions. We intend to place the solar thermal collector in an enclosed environment where we will use halogen heat lamps at set intensities in order to simulate various sunlight conditions. The research question is: will the recirculation system produce a constant temperature of 120 degrees Fahrenheit throughout high and low

energy durations of sunlight? We hope to prove that the recirculation system is an efficient alternative to electric and gas powered systems. In addition, we believe our research will motivate communities to consider solar thermal energy or other types of renewable energy for their domestic energy needs.

**Presentation Type and Session:** Poster VIII

## STEM Integration In the Technology Classroom

**Matthew Saramak**, INT 689: Research Design and Methods  
Faculty Mentor: Professor John Earshen, Technology

STEM education is an acronym for Science, Technology, Engineering, and Math. Science and Math are considered core courses and have well-established curricular pathways and expectations. Engineering and Technology education, on the other hand, do not. Widespread adoption on STEM education began in 2001 and has since been driving discussion regarding the future design and focus of our nation's primary and secondary education programs. Components of STEM education have been articulated in a wide variety of ways, but universal agreement has yet to be achieved. For example, Technology Education (Tech Ed) is presently mandated only at the middle school level in New York State. High school Tech Ed programs across New York State are not mandated and, as such, often come under budgetary scrutiny during difficult economic times. It is incumbent upon Tech Ed educators to more effectively demonstrate the centrality of the Tech Ed curriculum to the overall success of the STEM approach. The investigator intends to identify the most effective methods and techniques now being used to integrate STEM education into the Technology classroom. The investigator will collect and analyze data from a series of case studies, observations, document analysis of current STEM/Tech-Ed curriculum methodologies at work, and interviews with current educators.

**Presentation Type and Session:** Oral – Education

## Sudoku: Reinvented

**David Benko** and **Steve Stoveld**, CIS 435: Programming with Python

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

Python is a popular programming language, used by top corporations, such as Google, Yahoo, and NASA. Being a high-level, object-oriented language, Python is the perfect means to accomplish our task of creating our Sudoku game. Being a group research project, the high-readability of the language is key; it will allow for better collaboration, and cleaner code. The objective of Sudoku is to fill a  $9 \times 9$  grid with digits so that each column, each row, and each of the nine  $3 \times 3$  sub grids contain all of the digits from 1 to 9. We are modifying this and using it to develop a version of Sudoku using Python. In our game, users will load a template from a file, complete it, and have the program validate the input. If the input



does not match the answers, it will be marked incorrect, and users can change their answers. Once completed, the user will see their completion time. This research project will help us better understand Python, and lend a better understanding to anyone interested in game programming with Python, or game design.

**Presentation Type and Session:** Poster VIII

## Swaging Process For a Brazed Heat Exchanger

**Michael Wutz** and **Steve Mancuso**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Xylem is a distributor of heat exchangers and is located in Cheektowaga New York. Currently Xylem uses an inefficient process for swaging their connectors onto plates for their heat exchangers. Swaging is a forging process in which the dimensions of a material are altered. The objective of this project is to create and utilize a more efficient process for swaging the connections on the heat exchanger to ensure that the unit will only need one pass through the brazing process. This would maximize profit and reduce the amount of labor needed. Setup should be basic and simplistic for the operator and would not involve any additional training. This report will include five different designs that would fix Xylem's current process of inaccurate swaging. The connector must be swaged correctly in order for the copper brazing rings properly seal the unit. Setting up the heat exchanger and swaging the connectors has been observed to take fifteen minutes or more; this is a longer process than Xylem wants. After the fixture is in place, the unit is prepped and then placed in the oven for eight hours. Out of the units that get swaged and brazed, a significant percentage of the units fail and have to be re-brazed. Designs in this report are required to produce a safer, more consistent, and faster process for swaging.

**Presentation Type and Session:** Poster VIII

## Tag Attachment For Ball Joints At Advanced Thermal Systems

**Richard Baumann** and **Richard Simonetti**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Advanced Thermal Systems (ATS) is a local company well known for ball joint and slip-type expansion joints. Their featured product is a composite packed ball joint used in processes that involve thermal expansion. Forming, machining, and welding of all product lines are performed at the Lancaster facility. ATS is experiencing a disruption of workflow due to the current process of attaching their nameplates to their product. Nameplates are currently attached through a manual process, which is the "bottleneck" of the production line. Implementing a new process to attach these nameplates will increase efficiency, increase output and decrease lead times. An effective solution to this problem includes the ability to be used on an array of sizes (ranging from 2 inches to 24 inches). A new system must be capable of securely the nameplate

to the ball joint without drilling holes or welding. This process will be a new process or an improvement of the current manual process. The objective of this study is to decrease labor by 33% while staying within the budget of \$15,000.

**Presentation Type and Session:** Poster VII

## Technology Education In the Elementary Classroom

**Daniel Brazeau**, INT 689: Research Design and Methods  
Faculty Mentor: Professor John Earshen, Technology

Science, Technology, Engineering, and Math (STEM) are generally regarded as an essential focal point of education in the US. While considerable investment has been made to include STEM principles in junior and senior high schools, far less attention has been paid to the inclusion of Technology exposures in the primary/elementary school years (K - 6). This research seeks evidence to support the argument that inclusion of Technology curriculum in the primary schools will be of significant educational benefit. This study will employ a case study methodology to examine and characterize those elementary (K - 6) students in schools electing to include a technology education curriculum content exposure in the classroom. It is hoped that this research approach will provide convincing evidence regarding the positive impact of including Tech Ed in the primary school experience. Guiding questions include: will elementary students exposed to a Tech Ed curriculum demonstrate a better understanding of the physical world, will such students develop better problem-solving skills, and perform at a higher level of academic achievement and will students exposed to K - 6 Tech Ed curriculum demonstrate superior performance in later years, beyond primary school?

**Presentation Type and Session:** Oral – Education

## Technology Solutions: A Study of the Effectiveness of Project Lead the Way

**Christopher Traugott**, INT 689: Research Design and Methods  
Faculty Mentor: Professor John Earshen, Technology

Technology Education (Tech Ed) as a curriculum is surprisingly ill-defined in the United States today. As a result, best practices for teaching and universal curriculum standards remain elusive. There exists no standardized test of Tech Ed content. One of the most prevalent and successful Tech Ed curriculum movements today - Project Lead the Way (PLTW) - is a curricular approach developed by a private not-for-profit group in 1997 to address the country's need for more leaders in science, engineering, technology and mathematics (STEM). Though not universal, today 4,200 school districts in all 50 states have adopted the PLTW curriculum. The purpose of this study is to measure the extent to which PLTW has positively impacted enrollment in Tech Ed courses at the high school level in New York State. This study will investigate whether students exposed to PLTW-programming indicate a greater interest in

continuing their education (post-secondary) in a STEM related field than their non-PLTW counterparts at non-PLTW schools.

**Presentation Type and Session:** Oral – Education

## **An Unabridged Approach To Lean Implementation: Understanding the Impact of Corporate Culture On Operating Systems**

**Joseph Wolkiewicz**, INT 689: Research Design and Methods  
Faculty Mentor: Professor John Earshen, Technology

At this publically held automotive company (Co-X), it is standard practice to incorporate Lean Material Strategies (LMS) in the launch of each new engine manufacturing program. LMS serves as the foundation for design and implementation of all assembly systems at Co-X. At the heart of LMS is the notion that value can be created without compromising manufacturing quality or customer responsiveness. Adoption of LMS is placing unprecedented new demands on employees and departments within Co-X to act cooperatively and collaboratively – as a result, Co-X is experiencing a major and fundamental shift in its corporate culture. Successful implementation of LMS at Co-X ultimately depends heavily upon its ability to: 1) Absorb rapid changes in manufacturing schedules, 2) Drive waste back to its supplier sources, and 3) Receive and incorporate real-time inputs regarding the global supply chain, quality metrics, and internal order demand. Without these capabilities, a truly responsive and dynamic LMS operation is less likely to be achieved at Co-X, and will probably result in sub-optimal system performance. It is apparent that Co-X is struggling with the task of shifting its corporate culture. This research study aims to evaluate LMS system requirements in light of existing corporate culture constraints at Co-X. The goal is to characterize required changes in the flow of information to support optimal LMS performance. It is hoped that development of such an approach will articulate a set of concrete action steps toward a more fully functional LMS system – one better supported by a revamped corporate culture.

**Presentation Type and Session:** Oral – Science, Mathematics and Technology

## **Using Python To Program Yahtzee**

**Henry Prutsman** and **Austin Lee**, CIS 435: Programming with Python

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The focus of our research is to develop the game Yahtzee using Python. The Python programming language is more versatile than most other programming languages; its design philosophy emphasizes code readability. Python primarily supports object-oriented, imperative, and functional programming styles. Python can be used with many operating systems, application development, and web development. We have developed a program based on the sets of rules from the well-known game, Yahtzee. Using a series of loops,

conditional statements, and a random generator the game Yahtzee can be programmed fairly easily with Python. While programming the game we came across a situation when the player decides to hold the dice for the following roll; however, using nested loops and conditional statements this was easily resolved. Compared to other programming languages we have come in contact with, we found Python to be relatively easy to learn and implement. Our research will demonstrate how Python can be used to program a game like Yahtzee and as the program runs we will walk through and explain the steps that it takes.

**Presentation Type and Session:** Poster VII

## **Video Game Design In Python**

**Walter Promowicz II**, CIS 499: Independent Study  
Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

Game design is as much art as it is science. It requires vivid imagination combined with technical knowledge to realize elements of design into a beautiful game. The overall purpose of my research project is to simulate the processes that a game design studio would undergo: from focus group input to market release. The game was created with the Python language. I began the design phase by simulating focus group research. This data determined the style of most of the elements of the game through “storyboarding”. The “pygame” library of Python was then used in the game development. I then ensured the game was free of errors. The next phase was the simulation of the game “going to market”. This was done by determining the “likeability” of the game and using statistical analysis that provided an inferred sales figure. Lastly this was compared to the production cost of the average game in a small market. I used the individual elements of games (mechanics, dynamics, and aesthetics) to determinate user satisfaction. It was fun to be able to utilize my creativity in creating this piece of computer art and the results are more than evident in the resulting game.

**Presentation Type and Session:** Poster VII

## **Xylem Griffin Automation**

**Greigh Guarin**, ENT 422: Machine Design II  
Faculty Mentor: Professor David Kukulka, Technology

Xylem, a water treatment facility in Cheektowaga, NY recently installed an automated device to coat brazing fixtures after they come out of the oven. Current processes for coating brazing fixture requires manual application of the sealant with a paintbrush, roller, wire brush, and a paint reservoir. This process is time consuming, laborious, and consumes space. The amount of space needed for the fixtures to be stored, painted, and let dry is a detriment to the lean environment Xylem strives to attain. The solution proposed will ensure an increased throughput and profit factor. The design will implement an automatic system to coat the fixtures, while requiring limited setup and will be easy of the operator to use.

**Presentation Type and Session:** Poster VIII

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## *Education*

### **Aligning Social Studies Curriculum With Science, Math, and the Arts To Develop Critical Thinkers**

**Danielle Huber**, EDU 590: Educational Web Design

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

The purpose of this study was to find out if there is a correlation between students that think critically to their exposure to inquiry-based instruction via social studies aligned with the arts, mathematics, and science. The number of teachers that collaborate and/or are willing to collaborate with colleague teachers outside of their specialty/ content area was also examined. The teacher participants indicating that their students can think critically relative to the frequency of integrated critical thinking instruction was measured. The results obtained indicate that teachers do utilize inquiry-based instruction in their classrooms some of the time. The data also significantly shows that teachers find this form of instruction vital to developing critical thinkers. Finally, the research suggests that teachers do collaborate outside of their specialty/ content area, but they do not align curriculum. Although they do not align curriculum they do see the need/ benefits of doing so. These results led to the conclusion that teachers understand the significance of instructing to develop critical thinkers, but not all are effectively executing the instruction or they are not doing it at all. Additional information may be accessed at [2ndGradeSocialStudies.wordpress.com](http://2ndGradeSocialStudies.wordpress.com).

**Presentation Type and Session:** Poster III

### **Are There Universal Teaching Strategies In the Learning and Teaching of Mathematics?**

**Jenna Fanara, Meaghan Angelhow, Kelly Jasinski, Eric Gensler, Holli Diez, Scott Allen, Jessica Andres, Kylie Catanzaro, Angela Frost, and AnnMarie Henesey**, EDU 312:

The Teaching of Mathematics and Science in the Elementary School  
Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

Our qualitative study involved a comparison of teaching strategies that are used in the learning and teaching of mathematics at a professional development school between one public school in Buffalo, New York and a government or public school in Lusaka, Zambia. We are using several techniques in our study including participant observations, field observations, and interviews to collect data from a five classrooms in which each one of us will work as teacher candidates. Our findings should help us become effective teachers for students from different cultural backgrounds, students who are English language learners, and those students who may be mathematically gifted. It is our belief that as we become more

culturally diverse and adopt new strategies of teaching, we will help every child we teach to reach mathematical literacy.

**Presentation Type and Session:** Poster III

### **Assessing Student Learning of Fourth Graders Using Inquiry Based Science Kits**

**Jennifer Kimpton and Christopher Rademacher**, SCI 694: Research in Science Education

Faculty Mentors: Professor Catherine Lange, Earth Sciences and Science Education and Professor Joseph Zawicki, Earth Sciences and Science Education

Inquiry in the classroom can take many forms. Some pedagogical practices used in inquiry-based lessons include guided instruction, free-range exploration, lab activities, gather-analyze-interpret activities, and science kits. This study investigated the use of science kits in fourth grade classrooms, and the assessed the impact the kit use on student learning in science. The topics covered by these kits included: butterflies, magnets, electrical circuits, land and water, mammals, from seed to plant, among others. The typical science kit included instructional materials, student response booklets, teacher manuals, assessment materials, and lesson plans. They are widely used throughout the region in elementary and middle school classrooms. The kits are ordered by school districts and teachers are required to implement the kits as part of the regular instructional day. This study measured the student learning from the land and water science kit using: attitudinal surveys, teacher created assessments, kit developed assessments, student response booklets, a 'time on task' observation, and fourth grade state assessment scores (from previous school years). An analysis of the data will be presented. The initial data support the conclusion that using inquiry based science kits positively impacts the science learning of fourth graders who utilized the kits. Additional data will be collected to verify and to expand upon our conclusions. Given the lack of teacher choice in the use of the kits and the lack of data supporting the effectiveness of kit use, this research will provide valuable information for districts planning for future resource allocation and for teachers seeking to improve instructional delivery.

**Presentation Type and Session:** Oral – Education

### **Assessing Urban Outdoor Education Efficacy**

**Scott Cerny, John Miller, and Sean Collins**, SCI 690: Outdoor Education Master's Project

Faculty Mentors: Professor Joseph Zawicki, Earth Sciences and Science Education and Professor Catherine Lange, Earth Sciences and Science Education

Our project assessed the impact of both in-school and shipboard outdoor education learning experiences on urban student understandings, behaviors and attitudes. The in-school program included six interactive lessons; the shipboard experience included a day-long sailing experience on the Spirit of Buffalo.



The students sailed, as a class, onto Lake Erie; during the trip the students learning about both sailing and about water quality issues. Over the course of the excursion students collected and analyzed samples from Lake Erie and the immediate Buffalo Harbor area. The Buffalo Urban Outdoor Education provided both the in-class lessons and the sailing excursion. Specifically, our group designed and vetted a thirty-question pre/post test to assess student content knowledge, attitudes and awareness. The test was administered to 18 science classrooms of about 160 middle school age students in primarily urban schools within the Buffalo, New York area. Item difficulty, discrimination and response patterns were used to assess and refine test items; complete data sets were analyzed to measure student learning. Additional data points included teacher surveys, as well as classroom observation and field trip data. The data from test development, as well as the analyzed classroom data sets will be presented. The impact upon student learners will be discussed. The overall impact of the program and suggestions for further program refinement will also be shared.

**Presentation Type and Session:** Oral – Education

### **The Bilingual Brain: The Importance of Second Language Acquisition In Elementary Education**

**Sarah Banas**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Pixita Del Prado Hill, Elementary Education and Reading

Studies show that being bi- or multilingual can significantly increase listening, studying, and problem-solving skills, along with the ability to connect interpersonally and to develop cognitively. A little known fact is that the ability to become bilingual can start affecting the brain as early as infancy and decreases with age. Also, mastering two languages has many advantages, and those advantages can exponentially grow if implemented during childhood. I will explore the advantages and the many misconceptions regarding Second Language Acquisition. Through my study I will also address the importance of funding for Second Language Education at the elementary level, as these students are our future working class and can benefit to the highest degree. In addition, I will examine the many benefits of a second language in all aspects of life, focusing on the English-Spanish relationship, in our ever-growing world of global immigrations and connections.

**Presentation Type and Session:** Oral – Education

### **Common Core Learning Standards: Using Informational Text In Teaching Science and Social Studies**

**Courtney Hammond**, Masters in Early Childhood and Childhood Education and **Robyn Ruiz**, Masters in Early Childhood and Childhood Education

Faculty Mentor: Professor David Henry, Elementary Education and Reading

This project is a demonstration of how pre-service teachers can contribute to the curriculum and instruction in a school. We will present a model of instruction that can be used to integrate reading and writing informational text in elementary social studies and science instruction. The goals of our project are to develop a model learning experience that integrates inquiry science, writing, and reading informational text, based on the new ELA Common Core Learning Standards (CCLS). Using the concept of a Document-Based Question (DBQ), we have developed a learning experience in social studies and science that effectively combine inquiry lessons, reading and writing informational text, and authentic experiences for the students. The documents will include various informational texts, actual artifacts from nature, and data from science observations. The Document-based activities give a structure a learning experience that allow them to read, write, discuss, and do inquiry with meaning. Students are assessed before, during and after the learning experiences. This project is an example of how learning can be active, interesting and focused on appropriate learning goals, including the Common Core standards. Our project demonstrates how pre-service teachers working in a PDS partnership contribute to the effective learning and instruction.

**Presentation Type and Session:** Poster IV

### **Crayon Connections: Using Coloring Book Pages To Facilitate Letter-Sound Recognition**

**Mackenzi Jacobs**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Carla DiChristina-Longo, Elementary Education and Reading and Professor Andrea Guiati, Director, All College Honors Program

To be a successful reader, children must learn to quickly connect the letters of the alphabet to the corresponding letter-sound. Often times, the letters of the alphabet are placed next to a picture of a word that begins with the same sound. What if, instead of placing a picture next to the letter and expecting the students to make the connection, we make the letter into the picture of the word itself? In this way, children can immediately see the connection between the letter and sound. While in the home school setting, having children build the picture is a practical means to have children make the connection, in the classroom setting this could end up being a very frustrating experience. To provide a similar experience for children in schools, coloring book pages were designed for each letter. Key words were selected using research-based criteria and images were designed to clearly display the letter without any letter rotation. Although capital letters were the focus, this same concept could



be further applied to lowercase letters. Utilizing these pictures, classroom teachers could provide another way to expose children to letter-sound connection.

**Presentation Type and Session:** Poster I

## Developing Basic Mastery of Mathematics For Elementary Students

**Maria Horanburg**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

The purpose of this elementary education curriculum project was to create a user-friendly, web-based teaching unit that focused on mathematical notation and number value for young students and their teachers. It is important for young learners to feel confident and successful at the beginning stages of their education in order to build on prior knowledge and see future success. Mathematics notation and number value are two of the early concepts taught. The goal of this project was to create an interactive web site for elementary teachers so their students can master simple addition and subtraction problems. Once students are able to master these basic skills, they are given a much better chance to be successful in their future math education. This project addressed this question: What are effective ways of teaching and developing understanding of math notation and number value in the early elementary classroom? The web site address is <http://elementarymathedu.wordpress.com/>

**Presentation Type and Session:** Poster II

## Does Readability Affect Student Response?

**Dawn Weihrich**, SCI 690: Assessing Reading in Science

Faculty Mentors: Professor Joseph Zawicki, Earth Sciences and Science Education and Professor Catherine Lange, Earth Sciences and Science Education

This presentation will describe a pilot study that investigates how readability affects student response on tests. To this end, I have given urban students in the 9th grade different reading passages that have different grade level readabilities. The students were given a reading passage on the immune system with a readability at a high 7th grade level versus a low 5th grade level and asked them six questions based on the passage. To my surprise I found that they actually did better on the higher-level readability passage. These students, however, were made up of a high percentage of English language learners and have low reading levels. There was not a significant difference in the responses to make an accurate conclusion. So I decided to make two more versions of the immune system passage; one was a low 4th grade level and one was a low 4th grade level, but included a variety of visuals in the reading. These were then given to the same students and then analyzed to see if the responses were significantly different from the first round of responses. The design of the study and the initial findings will be shared.

**Presentation Type and Session:** Oral – Education

## Electrified Education

**Jodie Bonnas**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This study was conducted to guide a student in creating a working circuit and discover items that conduct electricity, via inquiry-based instruction. The study took place in a public library, after school, over the course of several days. While at the public library, electricity lessons were implemented with the goal of amending the third grade student's pre-determined misconceptions. Ansberry and Morgan, E. (2009) advocated that students in grades kindergarten through second grade should have a good grasp of what the electricity in a circuit does. Based on pre-assessments the third grade student did not have a solid conceptual understanding of electricity. Before exploring electrical concepts at a third grade level, this student needed to review previously taught electrical curriculum. The three implemented lessons were based on kindergarten through second grade electrical curriculum. The reported informational data was gathered using teacher observations, student interviews, rubrics, and post-assessments. The components of this study will be displayed in an interactive technology based presentation. The web site address is <http://electricityunit.wordpress.com/>

**Presentation Type and Session:** Poster III

## Emergent Writing

**Amanda Norton**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This multi-media, web-based curriculum project was designed using a six-week unit plan for Kindergarten students who are beginning to learn about the identification of the letters, sounds and written forms of the letters of the alphabet. The interactive curriculum unit is aligned with the Common Core Learning Standards. A detailed curriculum map is provided for the elementary teacher to use. The provided lessons focus on each of the letters of the alphabet using multi-modalities of learning and teaching. Each lesson represents a different letter of the alphabet along with the sound it makes as well as providing each letter with its upper and lower case for the student to see and write. After the students complete this web-based curriculum unit, the Kindergarten students' ability to identify each letter, make the sound of each letter and to write the letter can be assessed by multiple summative printable assessments that are included in the curriculum unit. The web site address is [www.nortonsemergentwriting.wordpress.com/](http://www.nortonsemergentwriting.wordpress.com/)

**Presentation Type and Session:** Poster III

### **Fifth Grade Moon Phasing: Curriculum Mapping**

**James Zacher II**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

I've taught fifth grade for four years, and the one concept over the years that was the most difficult to teach due to the many misconceptions, is the moon. This interactive, web-based curriculum project focuses on effective teaching methods to teach about the moon. A curriculum map has been laid out based on research that identifies misconceptions on the Moon, or diagnosing the gray area, and coming up with a cure in the form of lesson plans that research has found, use effective strategies that will eradicate students' misconceptions. This unit on the Moon will correlate with standards and use effective assessment to drive the instruction. The pretest will identify students' preconceptions or misconceptions, and help identify what concepts about the Moon have to be focused on more than others. The unit will last about two weeks, covering ten lessons that will include formative assessments to help drive instruction, while adapting it at the same time. It will conclude with a summative assessment used as data to identify whether students meet the standard by getting rid of their misconceptions about the moon. Students will identify the moon and its movement and relationship to other celestial bodies, such as the Earth and Sun. Students will identify what moon phases are, and more importantly what causes them. Finally, students will identify that the moon has gravity and the impact it has on Earth's tides. The web site address is [www.fifthgrademoonphasing.wordpress.com](http://www.fifthgrademoonphasing.wordpress.com).

**Presentation Type and Session:** Poster IV

### **Grade Five Mathematics: Interactive Web-Based Curriculum**

**Kelly Wrzochul**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

The purpose of this elementary education curriculum project was to create a user-friendly, web-based teaching unit that focused on creative ways to teach fractions to elementary students, as well as to provide elementary teachers with instantaneous access to multiple mathematical teaching resources. This project integrated curriculum and web technology into a functional website that is easily accessible for teachers, students, parents and community members. The curriculum project was created using the Mathematics Common Core Standards and the National Council of Teachers of Mathematics Standards for elementary students. This interactive web site contains specific sections concerning the use of mathematical manipulatives, teaching and learning about fractions with manipulatives, the importance of using problem-based mathematics, a curriculum map to guide instruction and lessons with formative and summative lessons. The curriculum project site focuses on grade 5 mathematics,

and in particular, the topic of fractions with manipulatives. The web site can be accessed at [wrzochulmathematics.wordpress.com](http://wrzochulmathematics.wordpress.com).

**Presentation Type and Session:** Poster III

### **An Inch and a Hop Into Life: Life Cycles**

**Emily Thiesen**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

Science is a content area within education and many schools that has slowly drifted into the background of curriculum. Reading and mathematics have been on the forefront of instruction. If science is taught, it usually is through strategies and techniques that have worked in the past. Educators are afraid to take risks. My project is based on the life cycles of butterflies and frogs in the first grade. I developed a three-week unit study on the life cycle of these two organisms utilizing inquiry based and hands on learning. My goal is to inform and instruct without having to rely on the traditional textbook approach. Research has proven that inquiry based learning and hands on materials benefits students. Early exploratory learning creates positive attitudes toward science and leads to a better understanding of scientific concepts studied in later grades. Science is meant to be explored and fun. My curriculum project is a website for future educators, parents and students to use. The web site address is [www.msthiesensclassroom.wordpress.com](http://www.msthiesensclassroom.wordpress.com).

**Presentation Type and Session:** Poster IV

### **Inclusion of Students With Intellectual Disabilities In a Post-Secondary Setting**

**Shanice Johnson**, EXE 364: Educating Students with Severe Disabilities

Faculty Mentor: Professor Lynne Sommerstein, Exceptional Education

This poster session will show how an inclusive college setting helps increase the reading skills of a student with significant disabilities from the Buffalo Public Schools. Through the College-Based Transition Program, an inclusive non-credit program of Buffalo State College and the Buffalo Public Schools, students not typically served by colleges learn how to live, learn, and increase socialization skills through peer and instructional support. The subject of this single-subject research is a 19-year old male student with intellectual disabilities and traumatic brain injury who participated in EXE 364, Educating Students with Significant Disabilities. This study shows how this student entered this class as a non-reader and accomplished his Individualized Education Program goal in reading by demonstrating a year's worth of improvement in reading in one semester. The rationale and results of pre-post ecological assessments will be presented as well as supports and instructional strategies used to accomplish results. Topics for further study will be explored.

**Presentation Type and Session:** Poster II

## Integrating Non-Traditional Forms of Literacy Into Content Areas Equals Success

**Kelly Bohlen, Melissa Barris, and John McGowan**, EDU 609: Literacy Instruction in the Upper Grades

Faculty Mentor: Professor Ellen Friedland, Elementary Education and Reading

Students can benefit from the integration of non-traditional literacy practices and vocabulary strategies into content area instruction. Literacy strategies and alternative texts appear to be positive additions to middle and high school content area instruction. Anecdotal evidence in the literature reviewed indicates that students can benefit academically and dispositionally when teachers use alternative texts in social studies, literacy strategies in math, and vocabulary comprehension strategies in science. However, this review also revealed that there may be factors preventing teachers from using alternative texts and literacy strategies within middle/secondary content area instruction. Furthermore, there is little empirical evidence showing the impact on the academic success students may achieve when alternative texts and literacy strategies are used.

**Presentation Type and Session:** Poster I

## Interactive Strategies To Engage All Learners

**Christine Oehman, Katarina Silvestri, and Clair Carrell**, EDU 609: Literacy Instruction in the Upper Grades

Faculty Mentor: Professor Ellen Friedland, Elementary Education and Reading

Teachers need to differentiate instruction to meet the unique needs of all of their students. As academic demands increase there are effective strategies that can be implemented to help students reach higher levels of critical thinking. Specifically, students with learning disabilities often struggle in all areas of literacy and require explicit instruction in note taking to be successful in content area classes. Also, strategies involving technology and a focus on “new literacies” can bring a new level of motivation and understanding of traditional print literacy to struggling readers and English Language Learners. In using these strategies, students with learning disabilities and English Language Learners will become active learners and gain confidence in their abilities.

**Presentation Type and Session:** Poster I

## Investigating the Impact of Outdoor Education Activities On Rural Student Views

**Maureen Gardner**, SCI 690: Investigating the Impact of Outdoor Education

Faculty Mentors: Professor Catherine Lange, Earth Sciences and Science Education and Professor Joseph Zawicki, Earth Sciences and Science Education

Field trips and outdoor education activities increase student achievement. Recent budget concerns have limited the number and the quality of field trips and experiences for many students in New

York State. This project examined the impact of outdoor education activities on students in rural areas. This project grew from a study of urban student learning of science content associated with ecology of the Great Lakes (Cerny, Miller and Collins, 2012). The program was created by Buffalo Urban Outdoor Education and includes four-week modules presented by scientists in the classroom that are followed by the application of science content on the Spirit of Buffalo schooner. Preliminary data collected from science students in grades 5-9 indicate that attitudes about ecology can be modified through a structured program that combines in class and out of class teaching. This study assessed the science learning of rural students using several tools, including the pre-test instrument used in the initial (urban) study. The current research project included 16 school districts in rural areas surrounding Buffalo. Rural and urban students have different experiences and interactions with the natural environment; the attitudes of rural students were compared to their urban counterparts. The current state of science education in rural districts, as well as an analysis of the collected data will be presented.

**Presentation Type and Session:** Oral – Education

## Patterns In Kindergarten

**Kara Cartwright**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This interactive web-based curriculum project is done as part of my master's project and uses a web-based platform. I have based my project around the use of patterns in Kindergarten, how to implement lessons into the classroom and what ways your students will benefit from learning patterns at an early age. Throughout the research done on patterning and structures, it is evident that early developments of these skills are critical to young student's ability to create abstract views and generalizations of mathematical concepts, ideas and relationships (Mitchelmore, Mulligan, Papic, Prescott, 2008, 376). Patterning involves the ability to recognize, extend create and copy patterns and demonstrates the process of discovering auditory, visual and motor regularities in young students (Waters, 2004, 27). There is a general consensus that patterning involves “observing, representing and investigating patterns and relationships in social and physical phenomena and between mathematical objects themselves (Mulligan and Papic, 2005, 609).” Thus, patterning and structure are at the heart of teaching and mastering mathematics and it allows students to make sense of their everyday world. The web site address is <http://kgeracecurriculum.wordpress.com/>.

**Presentation Type and Session:** Poster II

## Personalizing Math

**Vincent Barry**, EDU 651: Math Instruction

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

Mathematical examples or questions are usually established from within a book for elementary students. Some questions may

even consist of having hands on activities. This qualitative research study will view math from a personal level and will implement students' interests into the math word problem. This study will focus on the differences between text word problems and interest related math word problems. Through this study motivation, understanding, and self-efficacy will be measured for the two word problems to figure out what type of word problem is most beneficial for students.

**Presentation Type and Session:** Oral – Education

### **Planting a Seed In Young Minds: Primary Students Learn About Their Environment**

**Lisa Henning**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This interactive, web-based elementary education curriculum project was designed to meet the New York State Common Core Standards. It was created in order to help first-grade elementary teachers who teach their young students about living things. Young elementary students can gain a more concrete understanding of living things and how they exist within their environment when their teachers are prepared to teach them. The overall purpose of creating this web-based, elementary curriculum project was to plant a seed in young minds, furthering their knowledge about living things. The components of this web-based curriculum project include an introduction concerning living things, a literature review of research findings addressing the topic of teaching and learning about living things for young students, a list of New York State standards that were used to create this project, printable lesson plans with formative assessments, a summative assessment, and a project summary. The web site address is <http://planteducationunit.wordpress.com/>.

**Presentation Type and Session:** Poster III

### **Primary Patterns**

**Jessica Wild**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This interactive web-based elementary education curriculum project focuses on the content area of patterns. Patterns are an important part of mathematics for students. Patterns serve as the foundation for future concepts to come. Patterns are seen all around us; not just as in geometric patterns but in numbers as well (e.g., 5, 10, 15, 20). Patterns seem like such a simple concept that would be easy for students to learn but that is not always the case. Patterns are often overlooked in classroom curriculum plans, and as a result, children's future math skills are impacted. The idea of patterns is not only specific to math. It spans through almost any school subject or elective class, such as gym, art or music. This web-based curriculum was created using the Common Core Mathematics Standards for

elementary students. Included in this project is a curriculum map for teachers to use. The web site address is <http://primarypatterns.wordpress.com/>.

**Presentation Type and Session:** Poster II

### **A Quest For Treasure: A Behavior Change Plan**

**Gretchen Pascolini**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Awilda Ramos Zagarrigo, Exceptional Education and Professor Andrea Guiati, Director, All College Honors Program

The purpose of this study is to examine the effects of a whole class intervention applied in an attempt to reduce the disruptive and off task behavior in a second grade classroom. Participants include three students from one-second grade special education classroom in Western New York. The author will use a single subject ABA experimental design to evaluate the effect of the intervention. Data will be collected through direct observations of student behavior during each phase. During the intervention phase, the participants will get to choose a daily prize from a treasure box if they do not display negative behavior for seven out of the nine class periods. It is hypothesized that the motivation of receiving a prize will decrease the negative behavior. When the prize is accompanied with positive reinforcement and verbal praise, the hope is that the negative behavior will be minimized after the extrinsic motivation is taken away.

**Presentation Type and Session:** Poster I

### **Reading Fractions: Using Children's Literature To Increase Understanding of Fractions**

**Sarah Zera**, EDU 651: Theory, Research and Practice in Mathematics Instruction

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

A growing trend in childhood mathematics education is the use of children's literature to introduce a mathematical concept or supplement a lesson. There are numerous children's books that can be used within the classroom, both with clearly identified math themes and underlying themes. Mathematics educators have argued that children's literature allows children to make connections in various contexts, including real-life contexts, and thus may be an effective resource to teach a mathematical concept to elementary students. This action research project will assess the effectiveness of using children's literature to teach math concepts, specifically fractions for one participant at the second grade level. Does the use of children's literature related to fractions increase a student's understanding of the concept of fractions? The participant's knowledge of fractions will be evaluated prior to reading children's literature related to fractions. Following three lessons integrating literature, the student's understanding and comprehension will then



be re-evaluated. Conclusions for this project will be made based on the student's progress.

**Presentation Type and Session:** Poster III

## Seeing Reading Through a New Perspective: Sight Word Games

**Zachary Best**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Leslie Day, Elementary Education and Reading and Professor Andrea Guiati, Director, All College Honors Program

Four students operating at frustration reading and comprehension level will increase their ability towards benchmark using sight word games. Testing of comprehension was done so by offering Dolch words to find proper assessment level. Given a below grade level passage, the students read at frustration level. Using Lev Vygotsky's idea of scaffolding, 4 one-on-one teacher/student teams will exercise a multitude of games designed to work towards recognition of sight words. Increased recognition of Dolch words will directly allow these students to increase overall comprehension by use of context clues and other literary strategies. Giving focused attention to the students and implementing these strategies will engage and entertain the students. The candid learning will also allow him/her to relax and focus on reading in an authentic situation. A post-test following several sessions will allow the teachers to gauge the increased ability of the student over their time together. At the end of the sessions, the students, if not benchmark, will at least have made substantial increases in fluency and comprehension. The post test, much like the pretest, will present a passage at grade level and will ask follow up questions to assess the level of comprehension. These questions come directly from the passage. This strategy does not follow many well-known reading and comprehension beliefs such as DIBELS. This strategy is also not curriculum based. Instead, this unique strategy will be innovative and play a role in future education and tutoring sessions.

**Presentation Type and Session:** Poster III

## The Successful Advancement of First Generation African American College Students

**Sonya Johnson**, Early Childhood Education

Faculty Mentor: Professor Myrtle Welch, Social and Psychological Foundations of Education

This study addresses the importance of understanding which instructional tools promote academic achievement for first-generation African-American college students. For this qualitative study, nine freshmen and one junior first generation student in Bridge programs were interviewed one on one and asked about their experiences in school. Two of ten were males and eight were females. The theories, Model of Student Retention, Involvement Theory, Emancipatory View of Struggle, and Multiple Intelligences,

ground this study. Using these theories, it is shown that with high means of post secondary academic support as well as parental support, these students can succeed. First-Generation students, who are the children of parents who never went to college, embrace the world of academia despite their unique challenges such as their low socioeconomic status and limited knowledge of their new collegiate environment. Most first-generation college students are retained on their post secondary pursuit or simply drop out by their second year in college. To embrace the "cultural uniqueness" of these "at risk students," secondary and post secondary teachers and administrators, with instructional principles within a cultural responsive framework, can merge these students' world of academics with the culture from which they grew up. In addition, these professionals can implement the importance of transitional programs that help keep them on a successful post secondary track. The Bridge Programs and the federally funded TRIO Programs' success rates are high in regard to First-Generation African American students' success with post secondary endeavors.

**Presentation Type and Session:** Oral – Education

## Teacher Candidates: Click Here! How To Make the Most of a PDS Website

**Stephen Malone**, Elementary Education

Faculty Mentor: Professor Leslie Day, Elementary Education and Reading

Buffalo State College highly values the input and perspectives of its teacher candidates. In fact, each year, two undergraduate teacher candidates are chosen through an application process to serve on the PDS Advisory Council and participate in a variety of PDS initiatives. These undergraduate representatives provide updates to the Buffalo State College PDS Website enabling teacher candidates to obtain information about methods courses, student teaching, action research, and other Buffalo State College Education websites. To increase student accessibility, student representatives have created a "For Current Students" section on the PDS Website, and have launched a Buffalo State PDS Facebook page. The idea behind these new implementations is that teacher candidates from Buffalo State College will build a sense of community in the world of professional development. Over the course of six months, data has been collected and analyzed to attest to the success of the Buffalo State PDS webpage and the new Buffalo State PDS Facebook page. In addition to the steps that have already been taken, "Teacher Candidates: Click Here!" also takes a look into the future of these web-based technologies. We hope that you will visit us on our website at [www.buffalostate.edu/pds](http://www.buffalostate.edu/pds).

**Presentation Type and Session:** Poster III

## Teacher Candidates: Vital Stakeholders In Professional Development Schools

**Devin Bartlett**, Combined Childhood and Early Childhood Education

Faculty Mentor: Professor Leslie Day, Elementary Education and Reading

Strong partnerships, robust collaboration, and lively shared decision-making are important components of the Buffalo State College Professional Development School Consortium. Teacher Candidates are significant stakeholders in the collaboration, particularly elected student representatives who play vital roles in supporting PDS initiatives and the PDS mission. Valuing teacher candidates' perspectives strengthens and validates the authentic nature of PDS. Elected representatives are liaisons to the teacher candidate student body and support the initiatives of the Buffalo State College PDS. One such initiative is to examine PDS impact on teacher candidates. Specifically, this poster session will focus on the impact of attending our annual PDS Retreat, participating in PDS Consortium meetings, and presenting research and projects at these venues have on teacher candidates. Teacher candidates are encouraged to attend the professional development opportunities provided by the Consortium. This past September, as an example, over 40 students participated in the annual PDS Retreat. Following this event, as well as the December consortium meeting, the elected student representatives designed questionnaires for each event that was emailed to these teacher candidates using Survey Monkey and then followed up with hard copy mailing. The results of these surveys will be shared during this poster session. Monitoring and measuring the impact PDS has on our teacher candidates and teacher education program continues to be a focus of our PDS research agenda.

**Presentation Type and Session:** Poster III

## Teaching 21st Century Thinking Skills

**Ismet Mamnoon**, Creative Studies

Faculty Mentor: Professor Cyndi Burnett, Creative Studies

As we navigate through the 21st century, there is a growing awareness that there is a critical need for innovation and creative thinking. The USA stands to lose its place in the world as the leader in innovation and discovery. Change is coming from all sides at break neck speed and we are running to stand still. The future generation needs a new skill set in order to survive and thrive in this new world. This skill set is the ability to think creatively. Teachers are now being asked to develop these skills in their students. The problem that arises is, how can educators teach these 21st Century Thinking Skills unless they have a strong understanding of what these skills are? The Teaching for Creativity program was developed to meet this pressing need in the field of education. It is a program designed specifically for educators and the goal of the program is that teachers will be able to: define creativity; recognize creative behavior and outcomes;

identify and develop key affective skills related to creative leadership; establish a classroom environment in which creativity flourishes; and facilitate with and teach creative thinking and problem solving. This program has been used for professional development in schools internationally. There has been a significant positive impact on students. It is hoped that this program will become a mandatory requirement for all teachers in the future.

**Presentation Type and Session:** Poster II

## Technology In Schools: Harmful Or Helpful

**Joanna Ciansiosa**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Leslie Day, Elementary Education and Reading and Professor Andrea Guiati, Director, All College Honors Program

Technology has vastly changed our education system over the years. New technology is slowly working its way into the education system and changing the way students learn and teachers teach. This change seems to have taken place overnight. All of a sudden classrooms are equipped with things such as SmartBoards and iPads. Ten years ago this technology did not even exist. With my research I am going to explore just how technology has impacted the classroom. I will look at how it was when I attended elementary and middle school compared to how lessons are taught in the classroom today. I will also see if grades and performance have improved with this new technology being used in the classroom. Most people say technology is one of the best things to happen to a classroom and I will seek to shed some light on whether this theory is right or wrong. From pre-k up until high school, the past ten years have seen technology completely overhaul the education system, but is it for better or for worse?

**Presentation Type and Session:** Poster IV

## Undergraduate Learning Assistants In a Hybrid Economics Course

**Heather Dennis, Liza Sang Yan, Amber Buchholz, Daniel Flaherty, Katelyn Reese, Chanil Mejia, Cory Lauber, Joshua Naughton, Brittany Leo, and April Musielak**, ECO 101: The Economics System

Faculty and Staff Mentors: Professor William Ganley, Economics and Finance and Ms. Meghan Pereira, Instructional Resources

Economics 101 is a hybrid course that combines classroom instruction with informational technologies, such as ANGEL. The responsibilities of the Undergraduate Learning Assistants are to manage online activities, for example discussion forums, quizzes, and ToonDoo. In addition, ULAs track the progress of students and provide office hours for additional help. ANGEL is used in a variety of ways. We have weekly online discussion forums where the students post a response to their peers' questions. This is a good way for students to think critically about course material and to help others in the class to engage in critical thinking. Quizzes assigned to students have unlimited timing, and serve as resources to study

for the exams. We also do a ToonDoo activity, where the students can create their own cartoon based on their knowledge in the course. This activity provides students the opportunity to express their understanding of the material in a creative way. Other than online activities, we do an in-class review session before all exams. A good way to gauge how well students perform in the class is by generating a report through the use of the Turning Point clickers. Students click in and answer questions taken from lectures and the textbook. All the ULAs have previously taken the course and were recommended by their ULAs. A positive aspect to this is that we see what works and what doesn't. We use this to help facilitate student learning. In conclusion, Undergraduate Learning Assistants really make a difference in the class experience.

**Presentation Type and Session:** Poster V

### **Undergraduate Learning Assistants: A Hybrid Microeconomic Course**

**Kaitlin Fetes, Daniel Flaherty, Cory Lauber, and Desiree Wiley,** ECO 202: Principles of Microeconomics

Faculty and Staff Mentors: Professor William Ganley, Economics and Ms. Meghan Pereira, Instructional Resources

Microeconomics is a hybrid course that combines classroom instruction with information technologies provided through Angel and MyEconLab. The responsibility of the learning assistant is to facilitate classroom learning with online activities such as weekly chapter quizzes in MyEconLab. The quizzes are used to track student's progress throughout the course of the semester; while preparing them for future assessments. Students are given a week to complete each chapter quiz, along with multiple attempts in order to enhance their learning and gain a better understanding of the material. All assignments given on MyEconLab are available for review as a study aid for tests. Attendance and class participation is valued as part of a student's grade. In order to take attendance, the learning assistants use Turning Point Clickers to encourage student involvement during class. Questions related to classroom material are added into daily lectures; Turning Point provides a report of students who attended class along with a good understanding of which students are gaining information from the lectures. Communication with students is done through Angel and at the start and end of every class. Each learning assistant has office hours to assist students with individual needs regarding their success in the classroom. Learning assistants not only provide students with an alternative learning style for classroom instruction, but become enhanced in the subject material of microeconomics themselves.

**Presentation Type and Session:** Poster VI

### **Understanding Second Language Learners Perception of Environmental Science**

**Jennifer Pigeon,** SCI 690: Understanding Second Language Learners

Faculty Mentors: Professor Catherine Lange, Earth Sciences and Science Education and Professor Joseph Zawicki, Earth Sciences and Science Education

This study assessed ESL student learning in a six-week classroom and field-based program that introduced Buffalo youth to the Lake Erie watershed; the program is run by Buffalo Outdoor Urban Education. Specifically, this study assessed the impact of the learning experiences on students who are learning English as a second language. A pre/post-test instrument was developed for assessing student learning and attitudes. The test was refined and (anonymously) administered to over 180 students from various urban settings. The researchers have observed children from different countries on the boat; those observations have motivated us to become curious about whether native and non-native speakers respond differently on the survey instrument. An analysis of the survey results will be presented. The number of non-native speakers in K-12 classrooms has increased dramatically over the past several years. These research findings will inform teachers about how students, who do not use English as their first language, learn through field-based experiences.

**Presentation Type and Session:** Oral – Education

### **The Use of Computer Games To Enhance Student Achievement In Mathematics Based Instruction**

**Meghan Hooks,** EDU 651: Research, Theory, and Practice in Mathematics Instruction

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

Technology is becoming increasingly popular within the United States and will only continue to grow in esteem for years to come. It is often claimed that computer games could be a potential asset to aid students in increasing comprehension skills within particular subject areas. The purpose of this study is to determine whether computer-based games are beneficial in increasing students' performance and motivation within mathematical instruction. Throughout this study three pertinent questions will be answered to address the topic of whether or not computer games are considered to be a favorable tool in aiding students' comprehension within the area of multiplication. First, are there specific computer games that are proven to be more effective to students' learning and comprehension of multiplication? Second, does gender play a significant role in students' engagement, understanding, and interest in computer games? Third, does time duration play an intricate role in the success of students' mathematical accomplishments? These research questions will be addressed in the following study by conducting a series of short interviews with one participant, a fourth grade female student who dislikes mathematics. The participant will also play different computer games, and will be given a pre-assessment test and a post-assessment test to determine any successes or challenges that she may encounter.

**Presentation Type and Session:** Poster VII

### Using Graphs To Enhance Mathematical Reasoning and Number Sense In Preschool Students

**Paige Decosse**, EDU 651: Research, Theory, and Practice in Mathematics Instruction

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

Graphs are all over our world. They are used in the newspaper, on the news, in advertisements, and many other places. Young students have the ability to make and understand graphs. Using graphs can increase their number sense and mathematical understanding. When the graphs are connected to real world problems the students have a meaningful experience and enjoy data analysis. For my action research project I interviewed a preschool student on her knowledge of graphing. My participant had never heard of graphs, but was curious to learn about them. I then researched graphing activities to complete with the participant. I introduced graphing by using children's literature. With my help, the participant in this study created a graph using M & M candies. She also was involved in an activity to determine the fruits her family liked. The participant seemed interested and excited in the last activity. This finding suggests that real life problems are important in creating students interest in mathematics. Graphing also helped the participant to increase her number sense and understanding of the use of the terms "more" and "less" when expressing quantities. My findings suggest further research on the importance of using graphs in early elementary classrooms.

**Presentation Type and Session:** Poster IV

### Video Games: Growing Issue Or Healthy For the Mind

**Daniel Fortuna**, COM 450: Communication and Society

Faculty Mentor: Professor Joseph Marren, Communication

Video games in the past have been looked at as a time-wasting, childish way to destroy the brain cells of our youth. Acts of violence by children, such as the Columbine school shooting, have put the blame on popular violent video games like "Grand Theft Auto." Today 79.3% of the United States population has Internet access, and 64% of Internet users in the United States have a next generation console (Playstation 3, Xbox 360, Wii) connected to the Internet. The highest selling, most popularly known video game, with a record-breaking 1.5 million pre-order, is a military war style shooting game named "Call of Duty: Modern Warfare 3." In the first five days it grossed \$775 million in sales. So, are there truths to the negative connotation video games held in the past for increasing violent behavior and stunting the mental growth of kids? Have video games given us intelligent, interactive ways to challenge our brains and increase brain use, as opposed to stunting it. The study reviews articles and research done on brain development connected to video games, video game usage and popularity, and any issues or disorders connected to video games. Video games have increased in popularity and the target audience is growing as new gamers are rapidly

joining the trend. You can expect to see a power point following my presentation and a video or two for a further explanation of my topic.

**Presentation Type and Session:** Oral – Social Sciences

### The Water Cycle

**Ashley Yaiser**, EDU 690: Master's Curriculum and Assessment Project

Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

This interactive curriculum web-based project concentrates on students in third grade learning about evaporation and precipitation. It is intended that the students will gain knowledge on how all water is recycled and the cycle water undergoes as it changes form. This project also provided elementary teachers with interactive teaching resources concerning the weather. Teachers and students can then examine different weather conditions that take place as water changes form. Some topics included in the interactive curriculum web site are about bad and good weather, different kinds of clouds with the weather they bring and the different kinds of seasons. Also included in the web site is a curriculum map that provides the contents of the curriculum unit with references to teaching and learning standards. The interactions of the kinds of clouds and information about the kinds of seasonal weather and temperatures can be interactively explored. The web site address is <http://3rdgradescience.wordpress.com/>

**Presentation Type and Session:** Poster VI

### Why Is Science an Important Subject In Elementary Schools?

**Laura Snyder, Michelle Valentine, Melissa Polanc, and Kelly Buchanan**, EDU 312: The Teaching of Mathematics and Science in the Elementary School

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

We believe that science is an important subject in the elementary schools. Teachers should be aware that science is not just a body of knowledge, but a paradigm through which to see the world. In the first five weeks of class, our primary discussion centered on inquiry as a paradigm for teaching and learning science. We discussed the teacher's role in constructivism—the belief that knowledge is not passed from the teacher to the student was central to the teaching and learning of science. However there is very little time devoted to the teaching of science in the elementary school. Our research will employ the qualitative methods. We will observe how science is taught at our professional development school. From doing this research we hope to find effective ways that teachers use to implement science instruction in the classroom. We will also interview elementary students to find out whether they believe that science is or is not important. We hope to compare our findings with the discussions of the first five weeks of classroom theory on the college campus.

**Presentation Type and Session:** Poster VI



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## ***Health and Wellness***

### **Acculturation of Immigrant Dietary Eating Patterns**

**Kamila Mysiak**, NFS 315: Life Cycle and Community Nutrition I  
Faculty Mentor: Professor Tejaswini Rao, Dietetics and Nutrition

An individual's eating pattern is influenced by the cultural dietary habits. Adults largely prefer the foods that they ate while growing up. The purpose of the study was to determine the extent to which adults who immigrated to the US retained their cultural eating patterns and the degree of acculturation. Immigrants from Maltese were the subjects of the study. The island of Malta is in the Mediterranean Sea and is geographically isolated. The dietary patterns of the citizens of Maltese have been minimally influenced by other cultures and they continue to follow a very traditional pattern of eating till today. The diet resembles the Mediterranean-eating pattern. Dietary eating patterns were surveyed between two groups of Maltese nationals, Maltese living in Malta and Maltese who had immigrated to the US as adults. Results showed that Maltese nationals who moved to the USA still follow a diet that closely mirrors the one that they were consuming while growing up. The changes in their dietary patterns as a result of moving to a new environment were minimal. We can therefore conclude, that in the immigrant population studied, the individuals did not significantly acquire new tastes for the foods common in the country of destination.

**Presentation Type and Session:** Poster VII

### **Alternative Therapies: Using Glucosamine, Chondroitin, and MSM**

**Maggie LaMantia** and **Susan Semeraro**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

Though more than 46 million Americans diagnosed with arthritis joint pains, conventional medicine does not yet have a proven treatment to stop or slow the progression of osteoarthritis. We, therefore, researched to explore alternative therapies for reducing symptoms of inflammatory osteoarthritis out of a large number of dietary supplements. A combination of glucosamine, chondroitin sulfate and methylsulfonyl methane (MSM) has been used as a treatment alternative for patients suffering from osteoarthritis pain. Glucosamine and chondroitin with MSM are among the most common and most effective for reducing joint pains. Evidence does show strong proof that these supplements help reduce the associated pain as well as slowing the progression of osteoarthritis, but some inconsistencies and overall effectiveness warrant further research. Therefore, they do not meet the FDA requirements to be classified as drugs. In recent studies glucosamine has been compared to having similar results compared to acetaminophen and non-steroidal anti-inflammatory drugs (NSAID), as well as ibuprofen when treating patients diagnosed with osteoarthritis. Chondroitin and MSM

shows similar results associated with the benefits but there are still inconsistencies with the study results. The benefits and risks of taking glucosamine, chondroitin sulfate and MSM have not been definitively proven, and long-term studies are needed to better understand their effects.

**Presentation Type and Session:** Poster VII

### **Be Who You Are, Not What You See!**

**Lakeisha Robinson**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health And Wellness

Eating disorders are appearing significantly in females ranging from 12 to 18 years of age in western America. According to Healthy People 2020 (U.S. Department of Health and Human Services [USHHS], 2012) in 2009, about 14.3 percent of teens experienced eating disorders in an attempt to control their weight. Why you ask? Several sociocultural factors including mass media, mate selection, and interpersonal elements, all cause body dissatisfaction. Research suggests the increase in dissatisfaction with females and their body significantly contributes to the onset of eating disorders (Stice and Shaw, 2002). Forty to fifty percent of women in western America deal with some level of body dissatisfaction. Difficulty arises in determining the exact amount of women affected by eating disorders because of shame and embarrassment (Ferguson, 2011). Mass media and society promote thin and slim bodies that cause pressure to have the perfect body. Women of all ages internalize what they view on television and in magazines as personal comparisons. Today, these very things control self-esteem and self-worth. Researchers have noted peer and interpersonal relationships affect body dissatisfaction and eating disorders with some families strongly encouraging weight and appearance as measures of self-worth (Ferguson, 2011). While organizations and facilities, and health initiatives such as Healthy People 2020 (USHHS, 2012) have taken the first steps in reducing the proportion of adolescents who engage in disordered eating behaviors, additional recommendations include censoring television and radio, increasing public service announcements, and educational programs introduced at the grade school level.

**Presentation Type and Session:** Poster VII

### **Better Safe Than Sorry?**

**Samantha D'Agostino**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

In the past five years prescription drug abuse has continued to rise, and has unfortunately continued to take the lives of thousands of Americans each year. The purpose of this research is to understand why prescription drug use is so popular in the 18-24 age group and to further explore the link between chronic pain and doctors openly prescribing multiple prescriptions. According to the CDC (2012), since 2003, more overdose deaths have involved opioid analgesics than heroin and cocaine combined. The two

main populations in the United States at risk for prescription drug overdose are the approximately 9 million persons who reported nonmedical use in the past month (CDC, 2012). According to the National Alliance for Model State Drug Laws (2009), fifteen states required pharmacists to request identification from persons obtaining controlled substances as of March, 2009. This is one step in the right direction. Research indicates that the increase in prescription drug abuse is due to the easy access of obtaining prescription drugs and the common idea that prescription drugs are safer than street drugs. There is only so much the government can do to monitor and regulate access of these drugs, but one way to help these young adults is to educate them on the dangers of the prescription drug abuse and hopefully open abusers eyes so they seek treatment.

**Presentation Type and Session:** Poster VI

### Breaking the Fall

**Sarah Clerc**, HEW 411W: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

An increasing amount of research is being conducted to determine ways to improve the quality of life for those above 65 years old. One of the avenues in particular of great concern for this target population is the prevention, risk, and consequences of falling. With the rapid population growth of senior citizens, this issue will become an even larger problem in the future if additional measures are not taken to decrease incidence figures. According to the objective baseline in Healthy People 2020, an excess of 5,235 emergency department visits per 100,000 due to falls occurred among older adults in 2007 (USHHS, 2012). Therefore, an increasing focus should be centered on the retraining of balance through such practices as yoga. Why can yoga be the link between the elderly and their increasing need for balance? Yoga techniques are proving to be effective as they improve balance, are becoming more accessible in the community, nearly no equipment is required, is low impact, and movements can be conducted from a chair (Hakim et al., 2010). It is important to understand that most risk factors that lead to falling are modifiable, but the consequences that falling may lead to are irreversible. With multidimensional programs designed for the elderly and incorporating educational aspects into those programs, the elderly themselves will learn safety habits, which can make the difference in breaking the fall.

**Presentation Type and Session:** Poster V

### Color Your Troubles Away: Art For Bettering Mood and Mental Health

**Veronica Luppino**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Michelle Bae, Art Education and Professor Andrea Guiati, Director, All College Honors Program

The visual arts have been used throughout history to facilitate healing and beneficial self-expression. However, it was not until early in the 20th century when psychiatrists began taking an interest

in analyzing artwork produced by their patients and using art as a therapeutic tool. It was found that the creative processes of art enhanced patients' recovery and mental health. Art making is a universally practiced phenomena found in all cultures of the world, albeit in a variety of forms. However, in our culture art usually is not practiced by all people; although it is nurtured in elementary level children to aid in mental and cognitive development, many adults shy away from art making because they convince themselves that the result will not be visually pleasing to others. Despite these notions, I believe art making can provide stress relief and elevate mood; thus raising the question: can art therapy be useful for everyone, as well as psychiatric patients? We all experience negative stresses and often seek activities to alleviate such stress. In order to explore the notion that art making can elevate mood, I recorded my overall mood and feelings before, during, and after the process of creating artwork. I also attempted to detect if the use of bright and vibrant color would have added positive effects. To broaden my research, I interviewed fellow artists about their work and the emotional effects it had on them, as well as non-artists about the effects an art making activity had on their mood and stress level. Generally, both artists and those who did not usually produce art reported experiencing enjoyment in the process.

**Presentation Type and Session:** Poster V

### The Colorless, Odorless, Tasteless Compound That May Be Targeting Athletes Across the Nation

**Leah Knot**, Health and Wellness

Faculty Mentor: Professor Susan Baldwin, Health and Wellness

There are 40 ice rinks in Western New York that may or may not be at risk for high levels of carbon monoxide. Because there are no air quality regulations in the state of New York, rink owners are free to use any ventilation system and to use any zamboni that they desire to in their ice arenas. During the summer of 2011, research on rinks in Western New York took place. Many rinks were more concerned about their reputation than their air quality, so the rink managers (or owners) disregarded any correspondence regarding this sensitive topic. However, after many barriers, a rink in Western New York permitted the research project to be conducted. Western New York Rink 1 (WNY Rink 1) used two different zambonis during the research project, an older propane-powered zamboni and a newer, more efficient, propane-powered zamboni. During the week of research at WNY Rink 1, 220 surveys were disseminated to rink participants and 200 completed surveys were utilized. Additionally, four carbon monoxide data loggers were used to measure the levels of carbon monoxide at five-minute intervals during the week of WNY Rink 1 research. Carbon monoxide levels fluctuated during the week of research and high levels of carbon monoxide (50+ parts per million) were recorded forty-seven times. Survey analysis along with the data logger analysis provided positive feedback for the new zamboni's efficiency and safety for rink participants in WNY Rink 1.

**Presentation Type and Session:** Poster VIII

## **Does Phrase-Formatted Text Improve Reading Comprehension?**

**Taylor McCall**, SLP 495: Independent Study

Faculty Mentor: Professor Deborah Insalaco, Speech-Language Pathology

Our goal is to confirm the efficacy of phrase-formatted (PF) text for improving reading comprehension in typical college students. PF text is parsed and spaced according to linguistic phrase boundaries and was first shown to assist low average college students comprehend reading passages. Later studies indicated better comprehension for typical college students as well (Bever, Jandreau, Burwell, Kaplan, and Zaenen, 1991; Jandreau and Bever, 1992). A limit to the studies was that Bever and his colleagues used between subjects design. We wish to compare reading comprehension performance within subjects to replicate the results indicating benefit and reduce the risk of confounding variables. Thirty undergraduate students will be recruited and their reading comprehension tested with the Nelson-Denny Reading Test (NDRT; Brown, Vick, Fishco, and Hanna, 1993) because the NDRT has the advantage of alternate forms. The students will be tested under two conditions, PF text and regular text. The order of presentation will be balanced and test sessions will occur at least a week apart. We anticipate better comprehension on the PF test.

**Presentation Type and Session:** Poster V

## **Don't Hate Liberate: Suicide In the Gay and Lesbian Community**

**Toccarra Baguma**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Homosexuals and homosexuality have been ostracized in society for centuries. However, since the Gay Liberation Movement in the early seventies, homophobic views have become more public. Homophobia is displayed in schools, churches, and even in the homes of many Americans today, when these are the places young people should feel safe. Many of the lesbian, gay, bisexual, and transgender youth, or LGBT youth, live in constant fear of others uncovering their sexual preference causing them to be treated as an outcast. Adolescence is a confusing time for all youth, however the pressure of suppressing one's true feelings or disappointing family due to their sexual orientation can be too much for some, leaving them feeling desperate, alone, and suicidal. Healthy People 2020 states that LGBT youth are 2 to 3 times more likely to attempt suicide than their heterosexual peers (USHHS, 2012). Bullying is a direct cause of these suicidal thoughts and feelings. Bullying is the most common form of violence in society, becoming a major problem in schools. Over two-thirds of students believe that schools respond poorly to bullying; many students believe that help from an authority figure is infrequent and/or ineffective (Cohn & Canter, 2003). Schools need to institute zero tolerance when it comes to bullying. Parents need to become more involved in their children's lives and

increase pressure on schools to mandate early intervention, teacher training, and developing a positive school environment. Lastly, parents and teachers must come together to convince their elected officials to create stricter laws prosecuting bullying as a hate crime. The time to take a stand and teach tolerance is not after a child takes their own life, but now, while they are still here so we can give these children the tools they need to flourish toward their fullest potential.

**Presentation Type and Session:** Poster IV

## **Drinking Young**

**Philip Dulmage**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Research has discovered that alcohol is the reason for 79,646 deaths between the years 2001-2005 (USHHS, 2012). A considerable amount of deaths can be attributed to excessive alcohol use raising questions that lead to further research. Inquiries surrounding the topic examine adults raised in single-parent households and the effects that had on their personal intake of alcohol; supervised exposure increasing or decreasing alcohol abuse in those 18 years and older; and the comparison of death rates in relation to legal drinking ages of 18 and 21. Through information gathered, deaths attributed to alcohol have increased. Excessive alcohol use can lead to accidents, violence, and alcohol poisoning (USHHS, 2012). College students especially are prone to deaths related to binge drinking (Hingson, 2002). Current data does not indicate consistency with the legal drinking age of 18 verses 21 and how it relates to abuse and accidents, however, college administrators add that the drinking age of 21 had a more negative effect on campus life than when it was 18 (Lonnstrom, 1985). Studies have also shown that those who have their first alcoholic drink before the age of 15 are more likely to develop a dependence on alcohol (USHHS, 2003). Finally, children raised in a single-parent household do not necessarily increase their risk of alcohol abuse, but chaos in the home, ineffective parenting, and divorce does increase their risk (USHHS, 2003). Recommendations include having more sobriety checkpoints around college campuses; increasing the number of parents who discuss the consequences of excessive alcohol abuse with their children; increasing support groups for alcoholics; and increasing the number of physicians who discuss the consequences of excessive alcohol abuse with parents.

**Presentation Type and Session:** Poster III

## **The Effectiveness and Safety of Ginkgo Biloba**

**Emily Wax and Hillary Turkovitz**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

The leaves of the ginkgo biloba have been widely used for centuries as an herbal medicine for memory enhancement, dementia, vascular insufficiency, and central nerve system disorders.



There has been a lot of controversy over the effectiveness of ginkgo biloba. We examined peer-reviewed research to enhance our understanding of its role in mental health. Our Poster examined the claims made about the effectiveness, the methods of supplementation, and the possible dangers of using ginkgo biloba. Functional claims made about ginkgo biloba include its use in supporting cognitive function and encouraging blood flow to the brain and extremities. It, therefore, has been used for Alzheimer's disease, dementia, Reynaud's syndrome, peripheral vascular disease, glaucoma, and sexual dysfunction. Ginkgo biloba extract (GBE) is made from the leaves of the tree and can be found in tablets, capsules, and teas. Ginkgo biloba extract is composed of two major components—ginkgo flavonglycosides and terpene lactones—and standardized extraction methods are used to ensure that these compounds are in the proper ratio. Ginkgo biloba does have some potential safety concerns. It may interact with some medications and other supplements, including ibuprofen, anticoagulant and antiplatelet drugs, anti-seizure medications, St. John's Wort, glutamine, and melatonin. Some contraindications for use include pregnancy and breast-feeding, Diabetes Mellitus, and bleeding disorders.

**Presentation Type and Session:** Poster IV

### Emotional Intelligence and Alcohol In the Family

**Tricia Lewis**, SWK 307: Human Behavior 1

Faculty Mentor: Professor Patrick Dexter, Social Work

Emotional intelligence (EI) is a skill that should be acquired at a young age and used throughout a person's lifetime. EI is beneficial in enabling a person to react favorably in negative situations. It also allows individuals to attune themselves to the feelings of others, ensuring strong and healthy relationships. The consequences of not developing or having low EI can be the determining factor between whether an individual has a fulfilling life or falls short of happiness. An individual is more likely to develop emotional intelligence if he or she was brought up in an environment that encourages positive thinking and behaviors. An individual that grows up with an alcoholic parent is less likely to be exposed to positive attitudes and behaviors and therefore less likely to possess EI. The research below looks at the possible connection between growing up in an alcoholic household and the development of emotional intelligence. I have reviewed studies conducted on children's EI and compared them with studies done on the children in alcoholic families. From my research I have found compelling evidence that suggests a connection between a child's low EI and their upbringing in an alcoholic family.

**Presentation Type and Session:** Poster V

### How Multi-Cultural Exposure Impacts the Social Health of College Students

**Alexis Amankwanor**, Health and Wellness

Mentors: Professor Sarah Finocchiaro-Kessler, Preventive Medicine and Public Health (Kansas University Medical Center) and Dr. Sandra Washington, Director, McNair Scholars Program

This research project will explore whether studying abroad or being exposed to various cultures has an impact on the social health of college students. There are many programs that would be able to provide testimonials about the impact studying abroad has on students, but they are often based on individual's experiences and is not measured in a way to provide concrete findings that support the testimonials. The goal of this project is to bridge that gap and provide a way to measure student's experience abroad and assess the effects it has on their social health. The students that will be participating are students from the Semester at Sea voyage in Fall 2011 operated by the nonprofit Institute for Shipboard Education administered through the University of Virginia. This program offers rigorous coursework coupled with field assignments and service learning for students from a variety of universities (SAS). The estimated number of participants is between 300-400 students. Pre quiz evaluation forms will be distributed the week the program commences and the post quizzes will be distributed a week before the program ends. Three domains of social health will be measured; intrapersonal satisfaction, interpersonal satisfaction and future aspirations. The findings of this research project is currently under way, by being able to effectively assess study abroad programs, administrators will be able to serve students and their needs more effectively. This service along with others can help and guide students looking to cope with certain conditions they may face and their overall success during their collegiate career and beyond.

**Presentation Type and Session:** Oral — Social Sciences

### Implementation and Evaluation of the "Got Health?" Program

**Samantha Panzica, Jason Ribbeck, and Joelle DelMonte**, HEW 488: Internship

Mentors: Dr. Jonathan Lindner, Center for Health and Social Research and Dr. William Wiczorek, Center for Health and Social Research

The purpose of this study is to evaluate the influence of the "Got Health?" program, a youth wellness based program specifically focused on enhancing one's health knowledge while providing necessary tools needed to adopt and maintain positive health behaviors and improving self-worth. The study aims to assess the health knowledge of the one hundred public, private, and charter school seventh and eighth grade youth who attended the 17th Annual Youth Police Academy at Buffalo Police Headquarters on Saturday March 24, 2012. The survey topics include key measures of overall health, including physical activity, nutrition, sleep, alcohol and drug consumption, perceived risk of harm from use, mental and social awareness, and demographics (age, ethnicity, gender,



and grade). Youth participants will be given a pre-and post-questionnaire during the program. This poster will describe the “Got Health?” program in detail and will describe the frequencies from the data collected from the pre-and post-questionnaire. These frequencies will include knowledge and opinions pertaining to individual health, change in health knowledge, hours of sleep per night, number of very good friends, hours of daily exercise, perceived risk of harm from use, and mental and social awareness.

**Presentation Type and Session:** Poster VII

### **Obesity: What This Country Is Coming To**

**Jordan Blatz**, HEW 411W: Critical Issues In Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

How is obesity today going to affect rates of health issues in the future? This research will discuss and suggest what is causing obesity, which is one of the top most preventable causes of death. Almost 18 percent of adolescents aged 12 - 19 years, were thought to be obese in 2005-2008 (USHHS, 2012). Obesity in adolescents is a very serious health issue in today's world, especially within racial communities of the United States. Adolescents who face obesity can potentially face long-term health issues throughout their lifetime, one such being Type II Diabetes. One of the largest casual factors that contribute to the increasing rates of obesity in adolescents is poverty which affects exercise in unsafe neighborhoods, unavailability of the expensive healthy foods, and lack of education about prevention. From these simple conclusions, recommendations to address the obesity problem would be to implement policy and education programs to both the children and caregivers in the community as to how to choose as well as gain access to the correct means of exercise and nutrition. The simplest acts can keep the disease away.

**Presentation Type and Session:** Poster VII

### **Parent Survey Evaluation and Distribution of Targeted Project Safe Neighborhood Messages**

**Jason Ribbeck** and **Samantha Panzica**, HEW 488: Internship

Mentors: Dr. Jonathan Lindner, Center for Health and Social Research and Ms. Marla Fulton, Center for Health and Social Research

The purpose of this study is to analyze a nine-item parent survey and oversee the development of communication literature for West Side businesses and organization for a United States Department of Justice Project Safe Neighborhoods (PSN) Grant. The PSN grant aims to reduce youth violence on the West Side of Buffalo through the utilization of an environmental prevention approach. The survey assesses parent beliefs and behaviors related to guns, gangs, violence, and substance abuse. The communication literature includes a rationale, letters of request to community leaders asking for quotes and support, flyers, and a safety protocol. The poster will present an overview of the project, detailed results from the parent survey,

examples of the social norms messages, and the developed protocols for community engagement.

**Presentation Type and Session:** Poster VI

### **Paying the Price**

**Melissa MacQueen**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Women with low socioeconomic status are not taking advantage of HPV preventative measures. The National Cancer Institute (2009) reported that 400,000 cases of diagnosed cervical cancer can be found in low-resource countries. With proper screening, cervical cancer is a preventable disease (Kahn et al., 2006), which is why prevention is a cause for concern. The most common and well-known vaccine, Gardasil, can prevent HPV strains from developing into 70% of cervical cancers, however, costs and access prevent the economically disadvantaged from receiving the vaccine (Hymel, 2006). Evidence acknowledges that women in lower socioeconomic standing do not receive preventative treatment, whether it is HPV testing, Pap smears, or vaccinations. Screening rates remain low, therefore additional programs such as that offered by the National Breast Cancer Early Detection Program (CDC, 2012) must be offered at no cost for those who are underinsured and uninsured. Time, transportation, childcare, and time off from work are possibilities as to why women are not screened. If programs were instituted to address these barriers, women might be more inclined to be screened. Making the vaccine more affordable to those without enough or any insurance coverage is also a viable solution.

**Presentation Type and Session:** Poster V

### **The Physiological Effects of Gatorade Versus Diluted Fruit Juice During Exercise**

**Alexander Ford**, Dietetics

Faculty Mentors: Professor Carol DeNysschen, Dietetics and Nutrition and Professor Tejaswini Rao, Dietetics and Nutrition

The purpose of this study was to investigate the physiological effects of Gatorade versus 50% diluted apple juice during exercise. The subjects consisted of ten recreationally active males and females between the ages of 22 and 57. Each participant was asked to perform three 60-minute exercise sessions of 5% inclined treadmill walking at 60-85% of their maximum heart rate. Each session required the subject to consume 24 fluid ounces of water, Gatorade or 50% diluted apple juice. A taste test was administered to each participant to determine tolerance, taste, satisfaction and fullness. My findings showed that there was little variation in heart rate and RPE (rate of perceived exertion) between Gatorade and 50% diluted apple juice. Heart Rate Drift overall was minimum among the participants. When comparing participants sessions where Gatorade and 50% diluted apple juice were consumed, the average heart rates were roughly the same. The greatest variation in heart rate was recorded

in the session where water was consumed. Based on the taste test evaluation Gatorade was preferred slightly over 50% diluted apple juice in taste. However, 50% diluted apple juice scored significantly higher in fullness, satisfaction and especially tolerance, tying with water in this category. Based on the data following it appears that 50% diluted apple juice is an adequate alternative to Gatorade in regards to physiological effects and tolerance and that 50% diluted apple juice is organoleptically acceptable in comparison to Gatorade.

**Presentation Type and Session:** Oral – Social Sciences

### Phytochemicals and the Treatment of Certain Cancers

**Alyssa Colangelo and Amanda Johnston**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

There are thousands of phytochemicals discovered by scientists but only a few have been closely studied. Some phytochemicals have either anti-oxidant or hormone-like effects. A diet rich in foods with phytochemicals reduce the risk of certain types of cancers and different diseases. Antioxidant N-acetylcysteine (NAC) is one phytochemical that was researched with the effects of arresting the cell cycle proliferation in human colon cancer. As expected, the GSH oxidation from these phytochemical treatments was reversible by NAC. Another experiment conducted with phytochemicals was to test the suppression of cancer cells. Combination of carotenoids and myo-inositol was found to prevent hepatocellular carcinoma development in patients with chronic viral hepatitis and cirrhosis. Phytochemicals even possess photoprotective properties to prevent harmful effects of excessive ultraviolet light. Fernblock is an antioxidant extract that inhibits the generation of reactive oxidation species (ROS) production induced by UV.

**Presentation Type and Session:** Poster VI

### Pop a Pill

**Ian Wilhelm**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

The use of prescription pain relievers for recreational use has risen consistently since 1991 with reports of usage at 1.5% (Blanco, 2007) to 4.8% in 2012 (USHHS, 2012). The most affected group are those 18-24 years of age, which is the result of these drugs being readily available at home, as well as inexpensive to obtain. There are not many programs available to educate people on the potential effects of these drugs, which can lead to addiction, severe health problems, and potentially, death. Reviewing the programs that are currently in place, and correcting their problems may be the best way to start. Interactive programs instructing children on the dangers of these drugs and other drugs would be a solid platform. Socioeconomic status of people is mainly what determines usage. Lower income, less educated individuals tend to be the highest of users, except for college dropouts who are the overall highest of users at 4.3% (USHHS, 2012). As education is one of the main

determinants of usage, educating individuals at a younger age, such as in middle and high school, may deter initial usage.

**Presentation Type and Session:** Poster V

### The Predicaments of Becoming a Mother

**Mariam Abdo**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Pregnant women may experience complications that happen during their pregnancy journey and labor. Pregnancy complications affect women while they are pregnant and/or post-birth. Complications during pregnancy include high blood pressure, gestational diabetes mellitus (GDM), low maternal weight, and cesarean section delivery. Nevertheless, pregnant women face complications that make it an uncomfortable experience and difficult journey for the expected 40 weeks of gestation. Healthy People 2020 (USHHS, 2012) states that 31.1 percent of pregnant women experience some form of complications while giving birth. In Erie County, the percentage of cesarean section delivery is high. For instance, Women and Children's Hospital reported 41.1 percent of pregnant women delivered by cesarean as compared to Geneva General Hospital in Ontario County, N.Y., which reported 28.1 percent. GDM, a common disorder experienced during pregnancy, presents with high blood glucose levels that endanger the unborn child. This disorder also leaves women vulnerable to the disease post-pregnancy. The statistics related to pregnancy complications are high. The goal is to improve health and lower the complications as well as disease associated with women during pregnancy and post-birth by improving information for maternal health as well as increasing comprehension for learning the facts behind these health issues.

**Presentation Type and Session:** Poster V

### Probiotics: Claims, Research, and Application For Nutrition

**Kim Murrell and Janessa Shaw**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

Probiotics refer to live microorganisms that, when administered in adequate amounts, confer a health benefit on the host. The most common probiotics are lactobacillus, L casei, L bulgaricus, S thermophilus and bifido bacteria. Our research focused on learning the benefits of probiotics and the mechanisms of their actions that can explain health claims of probiotics. Claims on actual supplements include "Naturally helps maintain healthy immune system," "Helps naturally promote bowel regularity," and "Builds and maintains a healthy digestive system". From our preliminary research we found that the FDA has not currently approved any health claims on probiotics but regulates it as a dietary supplement. Probiotics as a dietary supplement is widely used for the treatment of certain gastrointestinal problems and certain oral health problems on a fairly regular basis. Earlier clinical trials conducted

to study probiotics had limitations and didn't find sufficient clinical evidence. At this time, laboratory studies and clinical trials are being conducted to assess the safety and efficacy of probiotics for different types of medical conditions. In this poster presentation, we will discuss which medical conditions have a positive response to probiotics and how to stimulate probiotics with prebiotics.

**Presentation Type and Session:** Poster VI

### **Socioeconomics and Teen Pregnancy: The Missing Pieces To Tackling Teen Pregnancy**

**Divine Sebuharara**, HEW 411W: Critical Issues in Health and Wellness

Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Teen pregnancy is an ongoing social issue that affects several aspects of a young mother's life, her child's life, and the society as a whole. It accounts for over \$9 billion dollars a year in US tax dollars for more health care, foster care, incarceration for the children of teen parents, and several other issues (CDC, 2011b). More importantly, the youth groups that account for 60% of all teen births are Hispanics and African Americans, although they only account for 35% of the entire female youth population between ages 15-19 (CDC, 2011b). This research project will focus on the correlations between socioeconomic status and teen birth rates within the United States. Particularly, the research will examine the differences between disadvantaged youth and advantaged youth. Race and ethnicity will also be a focus in this study as it is a major factor in disadvantaged youth versus advantaged youth groups. The disadvantaged youth group tends to have a greater number of minorities, specifically Hispanics and African Americans, while the advantaged youth group tends to have greater numbers of Whites. Previous research has shown that there is a large disproportion between teen pregnancy rates among these groups. Future research should focus on a more qualitative aspect of teen pregnancy and gain more insight as to what the youth are saying about teen pregnancy, sex education, and pregnancy prevention programs. This will help those trying to reduce teen pregnancy understand what the culture surrounding teen pregnancy is from the youth's perspective and if it has changed over the years in order to better address the issue.

**Presentation Type and Session:** Poster VII

### **Stinking Rose: Garlic As Cure Or Con?**

**Hollis Ann Busch** and **Michael Christ**, NFS 330: Seminar on Complimentary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

Garlic (*Allium sativum*), commonly referred to as Stinking Rose, has the reputation of being an herbal wonder drug, and its medicinal use can be dated back as far as 3000 years. Some of the scientific evidence shows that garlic can aid in decreasing both blood pressure and blood cholesterol levels, as well as improving the overall health of the cardiovascular system as a whole. Additionally, preliminary research showed that garlic might slow the development

of atherosclerosis, improve immune function, reduce the risk of certain cancers, and assist with blood glucose control. Garlic may provide health benefits when consumed as a dietary supplement, among those being antibacterial, antiviral and antifungal activity. Our research found that an organosulfur compound called allicin (diallyl-thiosulfinate) is the biologically active compound responsible for garlic's effectiveness. The antibacterial action is not specific but rather wide-ranging, working on both gram-positive and gram-negative bacteria. Some of the bacteria garlic has an effect on are *Escherichia*, *Salmonella*, *Staphylococcus*, *Streptococcus*, *Proteus*, *Bacillus* and *Clostridium*. The focus of this research is to examine peer reviewed literature that will shed light on this ancient pungent bulb and provide a more clear answer to whether garlic is just a culinary spice or legitimate medicinal agent.

**Presentation Type and Session:** Poster VIII

### **Treatment of an Adult With Persistent Childhood Apraxia of Speech**

**Michael Maerten**, SLP 690: Master's Project

Faculty Mentor: Professor Deborah Insalaco, Speech-Language Pathology

The purpose of this research project was to determine the efficacy of dynamic temporal and tactile cueing (DTTC) therapy (Strand, Stoeckel, and Baas, 2006) for an adult with persistent severe childhood apraxia of speech (CAS) and moderate intellectual disability. DTTC is a hierarchical treatment that is based upon integral stimulation for adults with acquired apraxia of speech (AOS) (Rosenbek et al., 1973). The treatment gradually fades articulatory support from simultaneous productions accompanied by visual and touch cues to spontaneous productions with out cueing. At the same time the delay between the clinician's production and the participant's is increased. DTTC has been successfully used with younger children with CAS (Strand et al., 2006) and with a teen with intellectual disability and CAS (Baas, Strand, Elmer, & Barbares, 2008). However, neither integral stimulation nor DTTC has yet been applied to treat an adult with intellectual disability and CAS. A single-subject, multiple baseline design was utilized. The participant completed motor speech, language, and non-verbal reasoning assessment, an extended baseline, and is now receiving 10 weeks of daily treatment delivered by his mother and two speech-language pathologists. He is making small but appreciable gains in accurate production of 5 targeted words while remaining stable on the 20 control words. If successful, this experiment will replicate, confirm, and extend results of the earlier study by Baas et al. (2008).

**Presentation Type and Session:** Poster IV



### Underage But Overweight

**Kevin Carr**, HEW 411W: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Barbara Olivieri, Health and Wellness

Obesity in high-school-aged youth is a major concern. This disease affects everyone, from the parents, to the child, to the health care system. The world is moving to more processed low nutritional value, high sodium, fatty foods. This research will examine activity levels and nutritional deficiencies high-school-aged, non-active students. Childhood obesity has tripled in the past 30 years. A comparison study first conducted in 1970 saw an increase in obesity rates of children aged 12 - 19 years when reexamined in 2010 with rates increasing from 5% to 18% (CDC, 2011). Excess medical costs due to overweight adolescents are estimated at more than \$14 billion per year for the health care system (National Center for Children in Poverty, 2010). Recommendations include increasing physical activity classes throughout high school and possibly college. Former President Bush's "No Child Left Behind Act" mandates schools meet testing standards that have forced schools to cut funding for physical education instructors. According to the 1999 Youth Risk Behavior Survey (CDC), more than one-third of high school students do not regularly participate in vigorous physical activity. Healthy People 2020 (USHHS, 2012) states 34% of those aged 20 and over were obese during the time period 2005 - 2008. Working toward a 10% improvement, reducing obesity rates to 30% is the goal of Healthy People 2020 (USHHS, 2012).

**Presentation Type and Session:** Poster IV

### Understanding and Surviving HIV

**Daniel Dienhoffer**, HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

HIV is a debilitating, common disease. The HIV retrovirus is the world's greatest current pandemic. Nearly a million people in the United States are living with HIV, with many more contracting and dying of the disease every day. What is it like to live with HIV? In the eighties HIV reached its peak cultural frenzy and awareness. It has since dimmed in the forefront of concerns. As modern medicine has improved, the longevity of HIV patients has increased dramatically. However, the side affects of such medicine, the symptoms and issues HIV positive people face are widely unknown and ignored. Through the course of my research, I intend to increase knowledge in the dealings of HIV. My research is designed to compile data to help people better understand the severity of the disease and its complications. I intend to compile my data into a novel based on a fictional partnership in which one partner is HIV positive. I hope that this novel will revitalize awareness and bring a better understanding of the disease.

**Presentation Type and Session:** Poster I

### Vitamin D: A Multi-Tasking Prohormone For a Healthy Body

**Jane Calvert** and **Emily Frack**, NFS 330: Seminar on Complimentary and Alternative Nutrition and HON 400: All College Honors Colloquium

Faculty Mentors: Professor Suk Oh, Dietetics and Nutrition and Professor Andrea Guiati, Director, All College Honors Program

Besides the commonly known associations of Vitamin D with bones or calcium absorption, Vitamin D has many other roles in the body. Through review of the available literature, we examined the relationship between Vitamin D status and a number of disease states and conditions. Our research findings include Vitamin D Receptors (VDRs), and how VDRs enable the Vitamin D prohormone to function in the non-bone tissues of the body. Many studies have shown that Vitamin D deficiency bears the consequence of higher risk for conditions such as hypertension, heart failure, cancer, kidney disease, and diabetes. Despite the fact that further research brings more and more questions about Vitamin D as a prohormone, it is evident that its role is important for more than just calcium metabolism and bone health. Through review of the literature, we examined the relationship between Vitamin D status and a number of disease states and conditions. Our research included findings about Vitamin D Receptors (VDRs) and how VDRs enable the Vitamin D to play a number of biological functions as a prohormone providing a multitude of benefits including supporting healthy heart function, immunity, and bone health.

**Presentation Type and Session:** Poster IV

### Who's Affected?

**Kim Georges**, HEW 411W: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Barbara Olivieri, Health And Wellness

Obesity is declared an epidemic in the United States and is affecting many different people. The problem is growing because many Americans practice bad health habits. What may not be so apparent to people is that there are certain individuals that are most affected, although this nation as a whole is living in an era of an unhealthy and physically inactive lifestyle. Physical inactivity is a causal factor that is affecting certain cultures more so than others; females more than males, and youth. There are more African Americans and Hispanics that are affected by obesity as compared to others. Females in these particular races, and in general, are less likely to be involved in aerobic physical activity. According to Basch (2011), almost two thirds of the nation's high school students do not meet one recommended level of participation in aerobic physical activity. Approximately 20% more of white high school students met this criterion as compared to black or Hispanic HS students (37% vs. 31.1% and 30%, respectively). Compared to whites, all other ethnic groups are more likely to report no physical activity and were less likely to engage in extracurricular activities. Generally, older females are less likely to be physically active as compared to older males. Uncovering the problems will take research. Determining a solution



will require educating the target population as to the dangers of low aerobic physical activity and chronic disease.

**Presentation Type and Session:** Poster V

### Winter Wonderland Workshop

**Michael Guerin**, Social Work

Faculty Mentor: Professor Louis Colca, Social Work

Overcoming obstacles is not an easy challenge. It is even more difficult for older foster youth. These youth are faced with the challenge of an unstable biological family, lack of positive role models, school changes and living within the foster care system. As older foster youth age out of the foster care system, many find themselves unemployed, homeless and/or receiving public assistance. The Winter Workshop program was designed specifically for these youth who have been identified as being at risk of dropping out of school, being faced with removal from their foster home or have encountered difficulties with the juvenile justice system. In this program, youth ages 14 to 21 years old will attend a learning workshop that is designed for them to constructively and positively overcome obstacles with the addition of the winter elements. Although this program has been delayed due to lack of winter elements, it is anticipated that the youth involved will be able to overcome obstacles designed for them while building relationships with other team members as well as developing increased self-esteem and problem-solving skills. To be displayed will be photos and discussion of the day's events at the Winter Workshop.

**Presentation Type and Session:** Poster V

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# Humanities

## Advertising and Blind Society

**Allison Oste**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

In contemporary society we see advertising practically everywhere. We are all affected in different ways by these advertisements, even if we believe that we aren't. Research about advertising documents how it affects men, women and children, but what about those of us who cannot actually see what is being advertised? The main focus of this project is to research blind societies around the world, with the goal of determining if advertising has the same effect on blind and visually impaired people as it does on a person with unimpaired vision. Utilizing interviews of blind and visually impaired people in addition to utilizing existing research documenting how they interact with other people in society, I want to see if and how advertising affects the clothing they wear, the music they listen to and the consumer decisions that they make on a regular basis.

**Presentation Type and Session:** Oral – Humanities I

## An Analysis of Common Portrayals of Athletes In the Global Mass Media

**Alexa Myers**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

My research examines how the international media portrays athletes. I focus specifically on the Americas, Europe and Asia. My methodology consists of a longitudinal literature search spanning the past twenty years. I am looking at scholarly journals and articles examining mediated portrayals of athletes in various venues. I am also conducting a qualitative analysis of photos and articles that have appeared in various magazines and in television commercials. Hence, television commercials, magazines and billboard ads will be the sources of media I am looking at. This content, which spans a diverse array of sports, identifies common messages the media transmits to the public about individual athletes.

**Presentation Type and Session:** Oral – Humanities I

## Any Other Name Would Be Just As Sweet

**Cortney Drakeford**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

We are easily drawn to advertisements and tend to attach ourselves to the branding advertisers have created. Major brand companies today no longer simply produce products and advertise them, they instead contract out production of products and brand them. Branding helps us form identities which eventually lead us to associate ourselves with specific product lines and in turn through consumption differentiate ourselves from others. We have allowed familiar faces to replace the local shopkeepers who traditionally serve us and in turn have embraced corporations that produce products that create what passes for meaning in our lives. The products that

we choose to associate ourselves with, in that advertisers tell us we need so badly are not necessities we need to live. They are instead products that we choose based upon their status of “cool” with “cool” reflecting trends. Brands consistently increase advertising in order to stay relevant to consumers. As consumers, we clearly buy into branding but why is the question? Do we feel better about ourselves for buying a particular brand? Or maybe we feel superior to others when being brand loyal to a company? My presentation discusses whatever the reason may be and the lengths advertisers will go to keep us perpetually consuming.

**Presentation Type and Session:** Oral – Humanities I

## Aristotle and Respect As a Virtue

**Jenna Tomasello**, PHI 401: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

In the Nicomachean Ethics, Aristotle identifies two different types of virtue: “virtue of thought and virtue of character”. Aristotelian “virtue of character” deals with feeling, choosing, and acting well, and is acquired through habit. This type of virtue, Aristotle explains, is “a state . . . in a mean . . . relative to us . . . between two vices, one of excess and one of deficiency”. We might consider such virtues as wisdom, courage, and patience; but what about respect? If respect is the virtuous mean, what would be its excess and what would be its deficiency? Furthermore, Aristotle states that virtuous actions should be carried out “temperately or justly”, that choosing the virtuous action is not good enough; one must also choose it for the right reasons and act on with the proper feeling. Again, what about respect? Is there a difference between ‘appearing respectful’ and having true respect for oneself or for others? This presentation explores these questions and concludes that respect is indeed a virtue.

**Presentation Type and Session:** Poster V

## Barbara Ehrenreich's Nickel and Dimed and the American Working Class In 2012

**Eric Bucklaew**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Angela Fulk, English and Professor Andrea Guiati, Director, All College Honors Program

“Nickel and Dimed” is a book that explores the struggles of making a living in America. The author Barbara Ehrenreich wrote her book as an undercover journalist, attempting to uncover the genuine experience of the minimum wage worker. Many fictional beliefs such as “a job will defeat poverty” are proven to be untrue, as Barbara Ehrenreich discovers that it is almost next to impossible to raise social status in the low wage market. The book, though written ten years ago, also raises many issues that currently plague the U.S. economy. Certain glass ceilings in the economy are created to ensure that the poor stay poor, and the working class carries too great a share of the tax burden. In 2012, have we as Americans learned from Ehrenreich's discoveries, or are the issues a same problem that plague current day America?

**Presentation Type and Session:** Poster I

## **Beauty Is Only Skin Deep, Or Is It? Advertising To Women**

**Kimberly Drummond**, COM450W: Communication in Society  
Faculty Mentor: Professor Joseph Marren, Communication

This presentation focuses on the portrayal of women in advertising. Some journal articles state that negative portrayals of women in advertisements play a role in women's lives for years, and it perhaps stems from childhood influences and jealousy of other females. The articles are: "Highly attractive models in advertising and the women who loathe them: the implications of negative affect for spokesperson effectiveness," by A.B. Bower; and "Women in Advertising: Representations, Repercussions, Responses," by Maurice Peterson. Building on that, this presentation will gather data from three focus groups (consisting of about 10 people apiece): one with only female college students, one with only male college students, and one with a mixture of both. There will also be interviews with Media Production and Women Studies professors about the subject of women in advertising. These interviews will be with two women professors and two male professors. Each will take a survey of at least twenty questions that are similar to questions asked in the focus groups. Also analyzed will be ads of well-known fashion magazines that treat women as objects of beauty: Vogue, Allure, Glamour and Cosmopolitan. The project will also analyze the documentary series "Killing Me Softly," which focuses on the views of women in advertising and the eyes of beauty through a worldwide lens. This research can be important to communication majors because they can learn more about how information is presented in the media and how messages can have a lasting effect on someone's self-image, whether positively or negatively.

**Presentation Type and Session:** Oral – Humanities I

## **Bike For Love: Bringing an End To Human Trafficking**

**Kathryn Maslanka**, COM 495: Bike Fundraiser Project  
Faculty Mentor: Professor Deborah Silverman, Communication

Slavery may have been abolished years ago, but like so many other crimes making it illegal does not make it go away. It is estimated that 27 million people worldwide are enslaved today. There are more slaves today than at any other time in history. Human slavery has a different look today. Humans are trafficked for labor or worse, commercial sex. Many of these slaves are children. On average, two children are sold into slavery every minute. LOVE 146 is a non-profit organization to works towards the abolition of child slavery and exploitation. My project uses primary and secondary research to create a fundraising plan to both raise money for this organization and also generate awareness about this injustice.

**Presentation Type and Session:** Oral – Humanities II

## **The Commercial Assault On Childhood**

**Anthony Stevens**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

Children are targeted by marketers through advertising schemes that place them at the mercy of corporations. The media torrent delivers messages that corrupt childhood and the psychological development of children. These messages target children from birth and transform them into lifelong consumers. This exposure contributes to limiting their creative development and impairing their judgmental skills, while damaging their body image perceptions of themselves and others, and increased eating disorders and obesity, to name a few problems. Our desensitized society allows the media torrent to come between parents and children while subjecting children to manipulation regarding their wants and desires concerning commodities such as the food we eat, the toys we buy and the clothes we wear. Advertising is now everywhere in a child's life, from preschool classrooms to your home and virtual environments. It is nearly impossible for a child to avoid this media torrent. Politically, many feel that little will be done to protect children from this torrent. In the area of education, however, we have all the tools. My research examines both the effects of the commercial media torrent, and strategies for mitigating its damage to children.

**Presentation Type and Session:** Oral – Humanities I

## **A Cross-Cultural Analysis of Negative Body Image: Who Is To Blame?**

**Kathryn Maslanka**, COM 450: Communication of Society  
Faculty Mentor: Professor Michael Niman, Communication

Adolescent girls in Western countries have long struggled to emulate the "ideal" woman as portrayed by the American media. This pressure can lead to a negative body self-image, eating disorders, depression, and other self-destructive behaviors. Critics in both academia and the popular press have blamed advertising, particularly in television and fashion magazines, for instilling negative body images among women. This research examines the difference in body image across cultures. Specifically, I examine case studies of non-Western countries that suffer such effects after introducing Western media into their cultures. My research asks, is the media to blame for negative body image perception among women? Is there a direct correlation between media consumption and negative body image?

**Presentation Type and Session:** Oral – Social Sciences

## **Edward Murrow: The Misinformed Public**

**Matthew Sodon**, SPC 321: Rhetorical Criticism  
Faculty Mentor: Professor Liao Hsiang-Ann, Communication

In 1958, renowned journalist in radio and television, Edward Murrow, gave a speech at the Radio- Television News Directors Association (RTNDA) convention. In this paper, I used several

methods of rhetorical criticism to analyze Murrow's speech in order to further understand the structure and reasoning of this quite blunt speech. First, the situation or the context that had prompted Murrow to deliver his speech was examined. I looked at how these following factors might have affected Murrow's speech: rhetor, audience, topic, setting, persuasive field, rhetorical conventions, and the media. Second, I looked at the major ideas that were presented throughout the speech by coding the speech using Wilson and Arnold's sixteen universal topics. Third, I analyzed Murrow's arguments by examining logical appeals evident in the speech. Finally, I analyzed the syntax and imagery presented in the speech. The findings from this rhetorical analysis were that Murrow was angry about the programming done in television during that time period and that he was concerned about how television would affect the Americans in the generations to come. Murrow stated that the business end of the media had affected the way radio and television chose their programming. Much of the speech talks about the downfall of the United States society due to the misuse of radio and television.

**Presentation Type and Session:** Oral – Social Sciences

### Fame As a Facade

**Sarah Kramer**, PHI 401W: Respect Seminar

Faculty Mentor: Professor John Draeger, Philosophy

Stephen Darwall distinguishes between two kinds of respect. Recognition respect is given to all humans simply for being rational ends in themselves. Appraisal respect is given to a person with an excellent character or excellence in a specific pursuit. While society heaps praise and fame on celebrities of all kinds, fame seems empty. In particular, Darwall would withhold appraisal respect because fame need not track good character or even excellence in a given pursuit. The social norm of praising celebrities includes regarding them as more deserving of our attention, interest in their pursuits, and their needs or wants. According to Cheshire Calhoun, we should respect the social norm of celebrity and give celebrities appraisal respect. This paper explores whether Darwall's idea of appraisal respect make sense of the emptiness of fame. It concludes that following social conventions surrounding the famous need not imply that they deserve the appraisal for any exhibition of virtuous character or positive pursuit.

**Presentation Type and Session:** Oral – Humanities II

### A Familiar Tale Turned Upside Down: The Unconventional Use of Sentimentality and Seduction In *The Scarlet Letter*

**Gail Graesser**, ENG 442: American Novel to 1900

Faculty Mentor: Professor Peter Ramos, English

Many authors of the early American novel use sentimentality and adaptations of the British seduction novel as a means to find their place in the literary world. In striving to create a uniquely American voice, these authors use the mode of the sentimental novel

and apply it to the new American experience. These authors hope to gain credibility for their literary works and the genre of the novel as a whole. While most of these authors follow the familiar story line comprised of a woman tempted by a wayward love, ruined at the hand of her seducer, a subsequent illegitimate pregnancy, and ultimate death, there is one which seems to challenge this pattern. This paper argues that *The Scarlet Letter* by Nathaniel Hawthorne uses the mode of the sentimental novel along with the motif of seduction to create a very different outcome. Hawthorne shifts the roles of his major characters in *The Scarlet Letter* to create a new variation on the standard seduction novel. While his readers will be familiar with the seduction theme, they will apply their sympathies for these characters in a new way. By employing the reversal of the use of sympathy with the character of Arthur Dimmesdale, Hawthorne is enabled to portray the character of Hester in a unique way. The use of Dimmesdale is a very creative and well-planned tool by which Hawthorne brings readers his critical views of the Puritan laws and Calvinistic way of life. The reader is given a new lens with which to view the fallen woman in the familiar seduction motif. *The Scarlet Letter* uses what is hidden to bring forth what is new. Whether the somewhat hidden reversal of sympathy in its seduction motif, the hidden truths of the characters themselves, or the hidden hypocrisy of the men in power, this paper argues that Hawthorne uses the unexpected to bring forth new truth. The uses of the seduction motif and the reversal of the sympathies of the reader has enabled Hester Prynne to emerge as the vehicle of new truth, a most radical use of the fallen woman by Nathaniel Hawthorne.

**Presentation Type and Session:** Oral – Humanities III

### Fictionalizing Resistance: Scheherazade and Her Reincarnation In the Modern Arab Novel

**Amy Widman**, English Education

Faculty Mentor: Professor Aimable Twagilimana, English

From the stories of the ancient to the stories of our present, we see a highly patriarchal society where women are often victims of male dominated ideologies and practices. Somehow women have engaged in resistance against their patriarchal societies. One may wonder how women have survived in these societies for thousands of years. Upon a closer inspection of literature, we see women in a very different light than they are initially viewed. In the book *Arabian Nights* we meet Scheherazade, who resists her patriarchal society and saves the lives of many potential victims from the whims of a vengeful king through storytelling. In Tayeb Salih's novel *Season of Migration to the North*, we meet Jean Morris and Hosna Bin Mahmoud. These two characters show resistance against their society in very different ways: manipulation and violence. Women have the capacity of full control of not only themselves, but the world around them. Women have approached this situation and presence of power very carefully because they live in a male-dominated society, but it



is their society that forces their resistance. I argue that women are not always silenced, docile creatures that simply exist by the whims of men in a patriarchal society; they have complete control and influence of their lives and the lives of the men around them.

**Presentation Type and Session:** Oral – Humanities III

## **Franchised Folklore: Exploring Beauty and the Beast In Modern America**

**Devon Cozad**, English

Faculty Mentor: Professor Lisa Berglund, English

In modern American, we understand fairy tale folklore through many media, including conventional literature, films, illustrations and graphic novels, and even video games. Despite technological innovations, we feel a need to keep traditional characters alive, to pass them on to younger generations for safekeeping. We find a prime example of this in “Beauty and the Beast,” a fairy tale that has been adapted in many innovative ways by several well-known companies. This project mainly explores the Disney company and how they have contributed to the fairy tale on a national and global scale. Also explored are adaptations of Disney characters by other companies, such as Square Enix and their popular franchise Kingdom Hearts. The young adult novel (and movie) *Beastly* by Alex Flinn is also examined. The term “franchised folklore” describes the connection between the story of Beauty and the Beast and the material arising from it. For example, Disney themselves have produced thousands of pieces of Beauty and the Beast merchandise, all showing the iconic characters we love. Not only is this a marketing scheme to keep the characters relevant, but it is a way to keep the story alive. Franchised folklore creates a piece of the story that you can, quite literally, carry with you always.

**Presentation Type and Session:** Oral – Humanities III

## **Game On: America's Army**

**Jonathan Petzoldt**, COM 450: Communication and Society

Faculty Mentor: Professor Michael Niman, Communication

My research uses qualitative deconstruction tools to analyze the video game, *America's Army*, to identify embedded social messages and their effects on players. I am not focusing on the commonly analyzed aspect of video game violence, but instead on how this game, which is funded by the United States Army and distributed for free to users, promotes military enlistment. This paper is based both upon participatory ethnographic research which I conducted as a Player in the *America's Army* gaming community, and contextualized with material I discovered during a literature search of scholarly books and peer reviewed journals. Video games are an advanced communication medium which carries messages that not only sell us products, but also can influence perceptions of reality in a multitude of ways. In the discussion about this paper, I will address the influences that playing video games has had on my life, how I feel they have affected my life, and to what extent.

**Presentation Type and Session:** Oral – Humanities I

## **The Global Effects of Hip-Hop Culture**

**Elenni Davis-Knight**, COM 450: Communication and Society

Faculty Mentor: Professor Michael Niman, Communication

This paper will explore the global effects of mainstream hip-hop; the images, lyrics and ideals associated with the culture. The history of the genre is rich and has roots in political activism, and acted as a cultural adhesive. As mainstream corporate interests replaced the grassroots nature of the music and lifestyle, the reach and scope of the messages no longer remained in the hands of its founders, but became a global phenomenon. Hip-hop today by no means resembles its beginnings, and has begun to spread potentially dangerous thoughts and images around the world, effecting how the global consumer views African American men and women, and the lifestyles in which they are perceived to lead. Examining the growth of hip-hop culture both in America and other parts of the world, will give insight in to how it has become not only a music genre but also an entire way of life.

**Presentation Type and Session:** Oral – Humanities III

## **Hold On, Let Me Put My Purse Down**

**Jacquelyn O'Brien**, PHI 401W: Respect Seminar

Faculty Mentor: Professor John Draeger, Philosophy

American Society has dictated that women carry a purse as a fashion accessory as well as social stamp indicating their femininity. This has been a social trend that was once employed for the use of function, as I've come to understand, however, what of its historical roots? Being that carrying a purse puts a major physical restriction upon the person toting it around (in the way that one can not easily jump, run, lift or engage in many other physical acts of daily necessity) it stands to reason there could be a connection drawn from societies pressure to carry a purse and the social repression of women. Conventions of society will play a role in the paper, discovering whether or not conventions, like carrying a purse, and if they have a significant presence in the subtleties of a lack of women's rights. This paper hopes to explore the social and societal ties between women carrying a purse and the reasons behind this social trends, is this convention, or is this a social disparity? Further, it would be pertinent to understanding this social trend to investigate how respect for women in our American society is shown by subtle restrictions placed upon them, (i.e. such as being socially “forced” to carry a purse). Does carrying a purse have anything to do with societies respect for women? This is the main thesis of the paper. I would love to mention manners in their connection to conventions in this paper as well, using the works of Sarah Buss and Cheshire Calhoun.

**Presentation Type and Session:** Oral – Humanities II

### **I m teh Awes0mx0r: Gamer Speak and Establishing Hierarchies Online**

**Jeffrey Gumkowski**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor A. Michael Vermy, Modern and Classical Languages and Professor Andrea Guiati, Director, All College Honors Program

Language has often been used as a means to separate people into one category or another, or to establish identities and even rank in a social order, as can be seen historically in the Catholic Church's use of Latin as a means to separate clergymen from the public. This practice continues today, though in a vastly different venue. The rise of online gaming has created a new social environment for this generation, and as a result it has also created the space for new identities, categories and ranks to be established in this environment. The language used to fill these spaces is surprisingly different from everyday English, in orthography, structure and even use. It is an amalgamation of abbreviations, pictograph-like emoticons, freshly minted neologisms and deliberate mistakes. For all this, there is still at least one similar element. Just like the orators of old, verbally duking it out in the Senate Hall of Rome, write makes might. Whoever has the best command of the language in a demonstration of the language can use it to determine where others stand on the social spectrum, from respected to mocked and outcast. As a result of a great deal of immersive personal research in environments where this sort of speech is common, and in the findings of scholars more established than myself, I would like to demonstrate what can define "Gamer Speak" and how it is used to create or determine one's place in an online social hierarchy.

**Presentation Type and Session:** Oral – Humanities III

### **The Impact of Social Media On the Field of Journalism**

**Eric LaClair**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

In an age where digital media supersedes legacy media outlets such as newspapers and magazines, more people have easy access to news, advertising, and other forms of media. While social media websites and blogs have allowed for quick and easy dissemination of information, how have they impacted traditional forms of media and journalism, and has this impact been positive or negative? The sixty percent of the population with high speed Internet access can create a blog, or share their views or ideas on websites like Facebook, Twitter, and Yelp, but does this make them journalists? Some critics argue that these newer forms of media have undermined the integrity of traditional journalists, and that the people writing these articles, reviews, or stories hold no credibility themselves. However, there are instances where social media websites break news stories before media outlets. For example, according to ABC's Maggy Patrick, information was originally released on Twitter during the recent uprisings in Egypt before major media outlets "broke the

news." I argue that while social media has had both negative and positive impacts on traditional journalism, it is very clear that the line between these two forms of media is quickly becoming blurred.

**Presentation Type and Session:** Oral – Social Sciences

### **The Integration of Consequentialism and Deontology**

**Ryan Harvey**, PHI 401W: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

Normative moral theories often fall into one of two broad categories, consequentialist and deontological. Roughly speaking, the former contends that morality demands that we work to promote general welfare, while the latter requires us to follow universal moral rules. These two theories have been at odds historically. Consequentialists are traditionally criticized for the willingness to sacrifice moral rules for the greater good, while deontologists are criticized for being rule obsessed and unwilling to bend in the face of negative consequences. There are major difficulties associated with extreme forms of both views, which have led authors in both traditions to attempt resolution both internally and by arguing that parts of the opposing theory can be incorporated successfully. I will argue that this trend toward integration and moderation is the result of collective acknowledgment that neither theory can sufficiently capture the reality of our moral lives, but that both indicate important components. I will then examine the extent to which such integration is possible, if at all.

**Presentation Type and Session:** Oral – Humanities II

### **Is Captain America Required To Save the World? An Examination Into What Morality Requires of Us On an International Foreground**

**Nadeen Bawab**, PHI 401: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

Does the United States have a moral duty to use force to protect the human rights of individuals other than their own? Should the needs of strangers weigh as much as the needs of family and fellow citizens? What does morality require of us on an international foreground and what role does proximity play in all of this? This project will consider two perspectives. Inegalitarians take intervention to be an imperfect duty, one that is not required of us. They place the well-being of their own citizens ahead of the well-being of a nameless person across the world, and believe that intervention involves putting our own citizen's life at stake in order to prevent the deaths of individuals from other countries. On the contrary, Egalitarians believe that that all human beings deserve respect for the fact that they are human beings, and therefore they have a right to life and liberty, and we have a duty to help those rights prosper. Examining these two viewpoints will help us decide

whether Captain America has this obligation to save the world, even if it means risking the lives of its very own citizens.

**Presentation Type and Session:** Poster VI

## **It's Not a Cartoon-It's Anime: Foreign Media Mixing In**

**MacKenzie Clarke**, COM 405: Communication and Society  
Faculty Mentor: Professor Joseph Marren, Communication

The U.S. pushes out much more media that it takes in from the world, and non-English foreign media is rarely taken in, especially within the last decade. However, anime is doing surprising well within the U.S. My presentation will focus on the popularity of anime in our media today in particular the issues foreign media have breaking into American entertainment. To do so, it will focus on a comparative study of the framing of anime in the U.S. press and on broadcasting stations. It will also analyze the long history of Japanese produced animation in the U.S., and the growth of its fan base over the last two decades. I will analyze the issues facing companies producing anime and the fight between them and English fan subtitling groups that have and are violating international copyright/intellectual property laws; the ongoing issue of censorship in anime by distribution companies; and how foreign media and anime is perceived in the U.S. I hope the audience will get a "taste" for non-English speaking foreign media, and see that a subtitled movie or television show can be just as worthwhile to watch as an American production. I think the best material would be short, funny clips of subtitled anime.

**Presentation Type and Session:** Oral — Humanities III

## **Learn By Shooting: A YouTube Video About the Buffalo State Undergraduate Research Office**

**Kraig Adams**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Jill Singer, Director, Office of Undergraduate Research and Professor Andrea Guiati, Director, All College Honors Program

To help promote the Buffalo State Office of Undergraduate Research and its programs I produced an 8-minute documentary and short (<2 minute) trailer. This year-long effort began with a series of conversations with the director of the Undergraduate Research Office to learn about the programs and what features of the programs would be most important to highlight in the documentary. Next I contacted students and mentors to schedule interviews and selected various shooting locations. I also developed a series of questions that would be used to engage the person being videotaped and increase the likelihood that the topics I wanted to cover would be included in the interview. After filming nearly twenty student researchers and faculty mentors, I began the task of editing the many hours of recorded video. The technical approach to the project grew over time but certain pieces of equipment and practices were necessary. I started shooting on a Sony HDR-AX2000 camera

but later upgraded to a DSLR, the Canon EOS 60D. This change allowed more artistic control over the exposure, focal length and other aspects of the image. The editing of the film was a very drawn out but important process with multiple edits of different versions of the films. The entire project was over 800GBs of footage, which is a considerable amount of data to keep organized. Choosing what clips were to go in the film and where they were to go was a choice that got easier when I understood the project more. Researching about the Undergraduate Research Program allowed me to ask the right questions when shooting and in turn make the right cuts when editing. The music that I chose was from TheMusicBed.com, which is a website/company that allows for the licensing of music for promo films. It was important to keep this film 100% legal within the constraints of not using copy-written material, especially when it came to the music. The titles of the film were made using Adobe After Effects, a visual effects program and were used to set a pace for the film as being clean, entertaining and colorful. My poster will highlight the stages in the development of the video documentary along with 'lessons learned' along the way. The completed documentary and trailer are posted on YouTube and linked to the Office of Undergraduate Research website.

**Presentation Type and Session:** Poster — Friday Opening Reception, Including Premiere of Video

## **Life Isn't Always a Happy Ending: The Lies That Disney Told Us**

**Matthew Schmidt**, HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

With the premiere of "Snow White and the Seven Dwarfs" in 1937, the Walt Disney Company introduced a whole new world of filmmaking. Since then Disney has gone on to release 63 animated feature films to date, with four more already set for release in 2012 and 2013. Many stories that Disney tells are based off previous literature or real life events, usually romanticizing the stories. The 1989 film "The Little Mermaid," for example, is based off the fairytale Den lille havfrue ("The Little Seawoman") by Danish poet Hans Christian Andersen. At the end of the film the mermaid wins the heart of the prince and marries him. In the original fairytale, however, the prince marries the person who he believes rescued him and the mermaid jumps into the ocean and turns to sea foam. This is just one example of the way Disney changes a story to make it fit the "happily ever after" mold. I plan to continue to research Disney movies and show how they differ from their original stories, and use surveys to enhance my research by showing how people remember these stories, and how Disney makes us forget traditional folklore and actual history.

**Presentation Type and Session:** Poster II



### **Making Billions From an Unnecessary (and Potentially Harmful) Product: The Nike Story**

**Robert Zielonka**, COM 450: Communications and Society  
Faculty Mentor: Professor Michael Niman, Communication

Bill Bowerman and Philip Knight founded Nike Inc. on January 25th, 1964. Since that day, the number of running injuries in the United States has grown. A 'Runners World' magazine poll found that 66 percent of runners had suffered a running related injury in 2009 alone. Results from an American Academy of Physical Medicine and Rehabilitation study of runners found that while wearing running shoes, there was increased torque in the hip, knee and ankles, resulting in more injuries than running barefoot. My work argues that through the judicious muse of media memes, Nike has successfully create a product category where there was no real need (people have been running without "running shoes" since the dawn of mankind), and created a product that might be harmful as many new studies which I cite show. They have helped to popularize running culture and created a hugely popular and profitable brand while at the same time contributing to the increase in running injuries.

**Presentation Type and Session:** Poster IV

### **Mediated Gender Roles: What Boys and Girls Are "Supposed To Be"**

**Edward Mazzu**, COM 450: Communications and Society  
Faculty Mentor: Professor Michael Niman, Communication

For generations, American children have been subject to countless advertisements that reinforce stereotypes of what boys and girls should act or look like. Most often the messages are very distinct and overt, showing boys as tough and dominant while posing girls as passive and happy. But just how do television and print advertisements affect children and their behavior? To what extent does this influence have a lasting impression? And what role does popular culture play in assigning gender roles to children? After examining several hours of children's television programming, it is evident that the majority of ads are gender targeted. The typical ad for boys uses strong action verbs to describe behavior. Bold colors and aggressive pop rock music cast the product as a means to being "cool" and in charge. If there are girls in the ad, they are usually in the background merely there to watch with awe and excitement as the boy(s) play with the product. In sharp contrast, ads geared towards girls are often framed in pastel colors such as pink or purple and showcase the importance of beauty and delicateness to being feminine. The use of camera angles to convey messages also significantly increases the effect of assigning gender roles. Directors also commonly use visual devices such as camera angle to assign or deny power to boys and girls. My research discusses the impact of media on children and how gender roles are taught at an early age, and are usually counter to the social aim of gender equality.

**Presentation Type and Session:** Oral – Social Sciences

### **Networking From the Grave: Letterheads and Business Cards Designed For Famous Dead People**

**Victoria Palmiotto**, COM 495: Project  
Faculty Mentor: Professor Amy Greenan, Communication

When applying for jobs, first impressions are almost always made on paper. That is to say that the first thing a potential employer will be presented with is your business card, letter of interest, or resume. How can design be strategically used to successfully brand yourself and allow you to stand out? I will combine research in personal branding with my knowledge of the elements of design. The work will explore how images, color, and composition on paper can relay information about a person. In regards to branding yourself for employment, these pieces will demonstrate how to express creativity and individuality while maintaining professionalism. Research will be conducted in the form of interviews with professionals who are responsible for making hiring decisions. I will also research current trends in personal branding. I will apply what I learn to a collection of work that will feature collateral design for dead celebrities. Letterheads for late rock stars and business cards from past world leaders will be on display. Will you be able to tell which belongs to whom without looking at the names?

**Presentation Type and Session:** Poster VIII

### **Plea's Please - Spare Some Change?**

**Joshua DeMont**, PHI 401W: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

Does a destitute man's plea for spare change morally oblige you to help? What if he asked for booze? What if he were being assaulted and pleaded for help? If your sense of obligation differed between these scenarios, you are acknowledging there may be some instances that don't necessarily oblige you to someone else's pursuits, while others seem more compulsory. Stephen Darwall and R. M. Dworkin's respective accounts of dignified persons might have us act for moral reasons that derive from a sense of moral duty. Thomas Nagel's work suggests these are subjective reasons that fall short of how we 'ought' to act toward others. He claims they lack objective reasons that would have us act with an altruistic moral approach. The aim of this project is to determine whether an egoistic or altruistic approach to moral issues is better suited to answering our pleas.

**Presentation Type and Session:** Oral – Humanities II

### **Poetry's Progression: The Rearranging of Shakespeare's Sonnets**

**Ashley Bennett**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Roswell Park, Academic Advisement and Professor Andrea Guiati, Director, All College Honors Program

Shakespeare's sonnets entered the 17th century literary world without their author's consent. Now, those sonnets leave only clues to the publisher, and the story behind the 154 poems. Who was "Mr.



W.H.”? Why did Shakespeare not consent to the publication of his poetry? Are they even in chronological order, considering the author did not watch over the publishing? I propose to rearrange the order of the sonnets, and find the most accurate chronology. I’ll perform this arrangement by following the evolution and development of Shakespeare’s metaphors, since research I’ve already conducted has established a pattern throughout Shakespeare’s poetry. He works on a metaphor for a while, then once it reaches full complexity and he’s no longer interested in it, he moves on to another, therefore grouping these sonnets together. Other authors, such as Samuel Butler, have also tried to rearrange the sonnets, and I plan to use their research in conjunction with my own to find the most coherent order. This, I hope, will further prove the fluidity of the sonnets as a piece of art, namely that there is a unity among what looks like individual pieces.

**Presentation Type and Session:** Poster IV

### **Preying On the Children: Effects of Consumer Culture On Our Children**

**William Langer**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

Marketing researchers increasingly define and view American children between the ages of four and twelve by their spending capacity. These researchers estimate that children directly influence over \$200 billion dollars in sales, indirectly influence over \$300 billion dollars of purchases and personally spend over \$29 billion of their own money. Because of the vast amount of spending influenced by children, marketers have developed specialized “kid centered” marketing techniques to capture children as “branded consumers” in much the same way that they target adult audiences. This project focuses on describing the effects of the consumer culture and marketing on children, both in the United States and abroad. It examines potential negative effects including but not limited to: Impairment of normal social development and identity, the branding of children as commodities, and the rise of childhood obesity and other negative effects on health. Using content analysis of peer reviewed papers and scholarly texts, I will show that marketers purposely target children as consumers the same way they do adults to exploit them for profit. I also argue that the vast majority of commodities marketed to children can cause negative effects on their psychological development and physical health.

**Presentation Type and Session:** Oral – Humanities I

### **Respect and Nuclear Weapons: An Exploration In International Affairs**

**Matthew Guminia**, PHI 401: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

In recent years, the Islamic Republic of Iran has been pursuing, in secret, the refinement of radioactive material in the face of strong international opposition. Israel and the United States object under suspicion that beyond domestic power generation this material will

be used to construct nuclear weapons. President Obama Identified this issue as a major source of tension between the Muslim and Western world during his 2008 Cairo speech and claimed weapons of such nature to be “a decisive point” beyond which mutual respect for nations applies. In this paper, I intend to use a theory on respect by Philosopher Thomas E. Hill and argue that respect does, in fact, apply to nations. From this vantage point, I intend to critique President Obama’s claim that suggests that there are limits to respect for nations and think about what those limits might be and whether nuclear weapons are an instantiation of them.

**Presentation Type and Session:** Poster V

### **Respect In Zombie Land**

**Jason Offerman**, PHI 401W: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

Imagine a land in which the dead walk. There is no law and the main goal is survival. We might call this place “Zombie Land.” In this lawless land it must be wondered whether respect for the moral law exists at all. Respect for persons typically stems from the acknowledgement of the special status of human beings, but zombies are not human beings. Respect for persons also promotes the greatest good of the many, but it is unclear how this would apply to zombies. Now imagine having to let zombies consume a fellow human in order to get vital medicine back to large group of human survivors. More people will benefit in the long run, but it comes at the expense of leaving an innocent human to be eaten. This presentation considers whether innocent human lives can be sacrificed for the greater good or whether valuing each life prohibits such actions.

**Presentation Type and Session:** Oral – Humanities II

### **The Rights of Women and the Rights of the Unborn**

**Nickolas Beauharnois**, PHI 401W: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

The debate on abortion brings about equal amounts of passionate emotion from both sides. The problem is typically characterized as a conflict between the rights of the unborn who cannot presently speak for themselves, but have the potential to do so in the future, and the rights of the matured women carrying them. This paper explores whether rights should be seen as moral principles or claims about well-being. According to the principle conception, rights are due to women because of the fact of their personhood and due to the unborn because of their potential of gaining personhood. According to the well-being conception, rights are due to women and the unborn because it is in the interest of the greater good. I will argue for the former, and specifically that the rights of women trump those of the unborn.

**Presentation Type and Session:** Oral – Humanities II

### **The Role of Magic and Superstition In the Byzantine Empire**

**Jonathan Rutter**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Martin Ederer, History and Social Studies Education and Professor Andrea Guiati, Director, All College Honors Program

In studying a particular period of history and the society that drove it, a sufficient understanding of that society's belief in the supernatural is extremely important to understanding the period in general. These sorts of beliefs formed an interpretive framework through which the people of the time viewed their world, consequently helping to influence their actions. While such a belief system has many facets, one of the most interesting, and one that is only recently becoming a proper scholarly pursuit, is the study of the belief in magic and superstition. This research project will explore the relatively neglected area of magic and superstitious beliefs in the Byzantine, or Eastern Roman, Empire, specifically during the empire's middle period, of the Macedonian and Komnenian dynasties (c. 9th-12th centuries), the apex of the empire's political and military strength. Primary sources such as contemporary chronicles, ecclesiastical writing and sermons, personal writing, secular legislation, ecclesiastical legislation through church councils, saints' lives, and material evidence such as amulets and rings will be considered in synthesizing these beliefs and practices, in an attempt to understand how they helped to shape and influence Byzantine society as a whole during this period.

**Presentation Type and Session:** Oral – Humanities II

### **Sex Work and Self Worth: Is Sex Work Compatible With Integrity, Dignity, and Love?**

**Sarah Caputi**, PHI 401W: Respect Seminar and HON 400: All College Honors Colloquium

Faculty Mentors: Professor John Draeger, Philosophy and Professor Andrea Guiati, Director, All College Honors Program

Sex is a commonly shared desire in society; often it is even considered a need. As such, why is it that women working to provide sexual services are often considered less respectable than those who provide more socially "acceptable" services? Is there something unique about prostitution that causes us to think differently about women engaged in sex work? Is this social conception justified? Most discussions on this topic address the harm of sex work and the objectification involved. But drawing from the work of Darwall, McFall, and Nussbaum, this paper will explore the relevance of integrity, dignity and love to sex and will evaluate whether sex work is at all compatible with these elements.

**Presentation Type and Session:** Oral – Humanities II

### **Should the U.S. Ban Advertising To Children?**

**Andrea Curley**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

We have the option of filtering television with parental controls, however, is that enough to protect our children? European nations have already put various advertising bans into effect to curtail advertising directed at children. Critics in the United States suggest that we should do the same. Such an advertising ban could determine what can or cannot be advertised to children. The advertising ban would prohibit, for example, airing advertisements that promote junk food and toys. One question to address in legislating the ban would be determining how young is "too young" to view such ads. My research shows that young children are not educated on how advertising works, and therefore they do not fully understand the impact of advertising in their decision-making.

**Presentation Type and Session:** Oral – Humanities I

### **Should We Respect Female Sex Workers?**

**Alexis Molzen**, PHI 401: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

From the viewpoint of a middle-class American, sex work is not deemed to be a respectable job or career. Words such as "degrading", "demoralizing", and "undignified" are often used to describe not only the field of work, but also the individual: the prostitute, stripper and porn star. This project will make the case that these women are rational project-pursuing-moral agents. As such, we are obliged to respect them no matter what they choose to pursue. The work of Thomas Hill and Martha Nussbaum will support the view that we should respect these women as individuals and moral agents. To showcase the similarities and differences between all three areas of sex work, I will present each of them with a corresponding philosophical argument.

**Presentation Type and Session:** Poster IV

### **Starving For Perfection: U.S. and Beyond**

**Erin Albert**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

In my research, I want to find out why eating disorders among women have spread drastically throughout different cultures. My work documents how eating disorders have become the norm starting predominantly in the United States and spreading to young girls in different cultures. American media is saturated with images of dangerously thin models and actresses. These images now dominate much of the globalized media culture stimulating dangerous eating disordered behaviors in other countries. Various studies discuss this phenomenon that spreads globally along with other cultural changes. Dieting and poor body image makes women anxious about their own existence. Their self-identity is made and remade against this backdrop of cultural change as there is a

constant strive for security and control in a world that tells them they aren't good enough. My research, examines the question as to why eating disorders are now so prominent in so many cultures where they previously did not exist. I hope my research will be an eye opener for my audience because it will allow them to realize woman in the developing worlds are starting to be influenced by the media as woman in the United States are.

**Presentation Type and Session:** Oral – Social Sciences

## **That Makes You Cool? The Engineering of Fads and Trends In Popular Culture**

**Sara Kurpiewski**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

As we live our lives we see trends and fads come and go. What is it that draws our attention to these particular things? Who is it that controls our perceptions of what makes us "cool?" Research studies show that with globalization, cultural memes quickly spread globally. I am referring not only to things we think make us look cool such as clothing, fashion and music, but also nutrition, design, political, medical, and even environmental trends and fads that shape the way a society thinks and acts. My question asks who or what determines what fad is hip at what time? This paper will explore the research done on the topic of the social engineering of fads and trends. The findings will show why we as consumers fall into the trap of going along with that is "in" at that moment, and also who and or what established these standards.

**Presentation Type and Session:** Oral – Humanities I

## **Till' Death Do Us Part... Literally**

**Diamond Brown**, PHI 401: Respect Seminar  
Faculty Mentor: Professor John Draeger, Philosophy

In 1988, the case State of Kansas v. Stewart declared Peggy Stewart, a woman who killed her husband Michael Stewart while he was sleeping, not guilty because of persistent domestic abuse. In the eyes of the court, Stewart was a moral monster not deserving the most basic protections or respect. Kant argues that all people, regardless of status or sin, deserve the basic level of respect but should also be held accountable for their actions. On this view, Peggy Stewart's actions were justified because Michael Stewart as a rational agent was aware of his action and respect for him requires holding him responsible. Utilitarianism, by contrast, argues that individuals can be punished to better society. On this view, the world is better without him. This project argues that it can be justifiable for women to kill their abusers.

**Presentation Type and Session:** Poster IV

## **Two Short Weeks In the REAL Emerald City: How Does Study Abroad Affect Learning?**

**Maureen Vitali**, HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

Before traveling to Ireland, I had a very set view on what the country was like and what it stood for. I pictured acres upon acres of rolling green hills, roaring pubs, and an abundance of fiddles and Irish dancers. However, when I got to Ireland, I realized there was much more to it. The most shocking aspect about Ireland was the extent to which the Great Potato Famine was represented and remembered. I had studied the famine in middle school and high school, but I never truly understood the degree of the heartache it caused until I experienced it in Ireland. My trip to the Kilmainham Gaol and my study of the art throughout Dublin and Belfast serve as my primary research for this presentation. My main objective was to experience first-hand the value of a study tour, and to explore why it is different than traditional in-class learning. I have also interviewed a number of students and professors who have studied abroad. I have analyzed how their experience enhanced their educational journey and shaped their lives in ways that in-class learning could never accommodate. The results will be incorporated into my presentation.

**Presentation Type and Session:** Oral – Social Sciences

## **Why Nike Is Winning**

**Jeremy Mountain**, COM 450: Communication and Society  
Faculty Mentor: Professor Michael Niman, Communication

With the evolution of team sports, came an evolution in equipment and uniforms. Since the 1960's companies like Nike have taken the function of sports uniforms and equipment, branded them, and worked to make these brands as staples of different sports. Having the right shoe, socks, ball, sweatband, etc. is now "a part of the game." Both professional and amateur players have come to represent the sponsoring brand. This is clear in an earnings release from Dec. 20 2011, "Athletes will always be our most important partners, and our brands will always be our strongest asset." Nike, a branding pioneer, has become the model for success for other companies like Adidas and Under Armor, but remains atop the sports equipment industry as the hottest commodity. Through advertising, they apply an aura to their product, and encourage consumers to believe that a change occurs in anyone who dons a pair of Nike sneakers. According to the company, "Our brands are a source of authentic emotional connections, and they offer the power and flexibility needed to create and convert growth to value our shareholders. When you put on the Nike brand you are an athlete, you can be an athlete, because you wear what athletes wear. This subconscious feeling of internal confidence when wearing the Nike brand evolves increasingly over time, nurtured by immense amounts of messages that Nike disseminates around the globe. This paper

examines how through engineering a mindset in athletes all around the world by connecting Nike with successful athletic achievement, Nike has transformed the athletes, and warped the way sports are played forever.

**Presentation Type and Session:** Oral – Humanities I

### **The World Around Us: Advertising and Its Impact On Me**

**Desiree Wiley**, COM 450: Communication and Society

Faculty Mentor: Professor Michael Niman, Communication

Family is arguably the most important influence in a child's life. Although this rings true, from pre-school years on to college years children spend most of their day outside of the home and away from their guardians. They are influenced heavily by the world around them. Their teachers, peers, celebrities, television, music, advertisements and more, all contribute to the culture each individual tries to fit in to. "The world is fast becoming a global marketplace controlled not by individual governments but by transnational conglomerates interested only in profit," wrote Jean Kilbourne in her book, "Can't buy my love." The world we are living in is being controlled by big business. Their marketing strategies and advertisements are designed to target our inner most desires. One greatest desire, especially for women, is to be "beautiful." I will focus on my experience in the pageantry and modeling world. My journey has been a long one, full of sad and happy moments. Looking into and exploring my life, I am now aware how advertising has had a huge impact on how I view myself, especially physically. I will revisit vivid memories of the past and explore the industry, contextualizing my memories within the framework of contemporary scholarship in the fields of communication and women's studies.

**Presentation Type and Session:** Oral – Humanities I

### **Yes, Master: The Subordination of Women In the Mass Media**

**Victoria Palmiotto**, COM 450: Communication and Society

Faculty Mentor: Professor Michael Niman, Communication

Today's media is laced with representations of gender roles showing women as subservient to men. For example, my study of ten recent successive issues of Cosmopolitan magazine shows each issues has at least one cover-story headline offering women advice on how to better serve men—sexually and otherwise. Whether it is "50 Sex Moves: Thousands of men rank the hot and not so hot things you can do to their naked bodies," or "What Men Want Most at 9PM," the message is clear: a woman should focus on getting the attention of a man (or men) and keeping him (or them) satisfied. This type of message is particularly frightening in a world where countless women are sexually assaulted on a daily basis and deprived of basic human rights that men take for granted. My research documents the ways that various forms of media perpetuate the ethos

of male dominance and female oppression and subservience. It also explores how these gender-biased messages are reflected in real life relationships.

**Presentation Type and Session:** Oral – Humanities II



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## ***Physical Geography, Sciences, and Mathematics***

### **Acid-Base Indicators and the Spring Production: Chemistry-Theater Collaboration**

**Joshua Churik**, Biology

Faculty Mentors: Professor Maria Pacheco, Chemistry, Professor Ann Emo, Theater, and Professor Joy Guarino, Theater

As part of a collaborative study with members of the Theater Department, the interaction between commercial (phenolphthalein, bromophenol blue, methyl red) and natural (red cabbage extract) acid-base indicators with various fabric samples (muslin, spandex, nylon and others) will be explored. Fabrics will be tested for ease of absorption of the indicator as well as changes in physical properties upon absorption. The corresponding color changes when the indicator-coated fabric is exposed to either a mild acid or a mild base will be characterized by the type and brightness of the color produced, the rate of appearance of the color and the post exposure color retention on the fabric. The results will be incorporated in the design and construction of costumes to be used in the Theater Department's Spring Production. The audience will have the opportunity to interact with the performers through the production and will induce color changes in the costumes by exposing the fabrics to mild acids and bases.

**Presentation Type and Session:** Poster VIII

### **Analysis of a Point Mutation (G5W) In the Amino Terminus of Connexin32**

**Nicholas Vaughn**, Biology

Faculty Mentor: Professor Martha Skerrett, Biology

The gap junction protein connexin 32 (Cx32) was studied using site-directed mutagenesis. Cx32 is expressed in the liver, skin, and brain of mammals where it forms gap junction channels between adjacent cells. As part of a larger class project that involved tryptophan scanning of the Cx32 N-terminus, tryptophan was substituted for glycine at position five of its protein sequence (Cx32 G5W). The function of Cx32 G5W was assessed using the *Xenopus* oocyte expression system and the two-electrode voltage clamp method. The mutant formed gap junction channels between paired oocytes but the voltage-dependence of the channels was altered and conductance was significantly reduced. In order to better understand the consequences of the G5W substitution, a similar mutation was created in the high-resolution crystal structure of connexin 26 using the "mutagenesis" function in PyMol. In Cx26-based channels the amino terminus folds into the pore and substitution of tryptophan creates an obvious reduction in pore diameter.

**Presentation Type and Session:** Oral – Science, Mathematics, and Technology

### **Analysis of Street Traffic Density Impact On CO<sub>2</sub> and Air Particle Distribution In Beijing, China**

**Robin Tedlock**, Geography

Faculty Mentor: Professor Tao Tang, Geography and Planning

The growing economy in China has drawn many people to the cities. As people have more money, they would like to drive cars. It is estimated that over 1000 cars per day are added to the roads in Beijing, China. This contributed a great impact on air pollution in the city. The current research examines the distribution of gasses and particles across Beijing. Field sampling and measurements were taken at 86 locations across the city over a period of 2 weeks from June 3rd to June 18th 2011. The survey data was then interpolated into map layers using the universal kriging function in ArcGIS. The density of traffic lanes was interpreted from high spatial resolution satellite images. The number of lanes was assigned to the attribute database for each of the street segments. Kernel density of the traffic lanes was analyzed in ArcGIS. The kriging surfaces were then overlayed against a surface representing the density of traffic lanes. The results of this analysis show that areas with higher lane density either having more roads, more lanes, or both, generally coincide with areas that have lower concentrations of CO<sub>2</sub>. The only exception is the CBD area, where the high density is coincident with high concentration. This suggests that traffic capacity and the number of cars on the road at a given time may have less of an effect on local air quality than other pollution sources. In the meantime, weather condition of the time may impact the distribution of the pollutants.

**Presentation Type and Session:** Oral – Science, Mathematics, and Technology

### **Beach Sand As a Reservoir For *E. coli*: Implications of Water Quality Testing**

**Nicole Bennett**, Geology

Faculty Mentor: Professor Gary Pettibone, Biology

Bacterial contamination at freshwater beaches has been an ongoing concern among beach goers and researchers worldwide. Extensive water quality monitoring has been done on public beach waters but few evaluations of the water quality of interstitial water from beach sand have been carried out. A modified AMS gas vapor probe was used to extract water from beach sand and an AMS sand core was used to collect sand samples weekly between June and August, 2011 at two depths along a transect at Bennett Beach. Samples were collected along transects at the water/beach interface and at 6 meters up beach from the shoreline. *Escherichia coli* were enumerated from water and sand core samples according to EPA Method 1603 (2009). 79% of the interstitial water samples were found to have *E. coli* densities higher than the EPA standard of 235 CFU per 100mL of water while *E. coli* levels in beach sand cores exceeded EPA standards in 94% of the samples. Moreover, *E. coli* levels were 1-3 logs higher in the interstitial water and beach

sand samples than in lake water adjacent to the beach. There was a significant difference between *E. coli* densities collected from the beach water and from sand samples taken at the beach/water interface at a depth of 24–30cm (p-value < 0.05). Antibiotic susceptibility tests carried out on selected strains of *E. coli* showed that the most common resistance was to the beta-lactam antibiotic, Cephalothin. The terrestrial beach remains open even when bacterial levels in the bathing water exceed EPA's water quality standard. This poses a health risk for beach goers, especially children, who are likely to put their hands in their mouth after digging in the sand.

**Presentation Type and Session:** Poster VII

### Competition and Predation In a Five Species Model

**Anna Cummings**, AMT 495: Special Project for Applied Mathematics

Faculty Mentor: Professor Saziye Bayram, Mathematics

One of the greatest human-induced agitations of the marine ecosystem has occurred in the Antarctic. This had a huge impact on the populations of this region, especially the predator-prey interactions, which tend to have a symbiotic relationship in nature. The goal of this project is to model mathematically a 5 species predator-prey relationship in the Antarctic between krill, the prey, and blue whales, minke whales, fur seals, and crabeater seals, the predators. I have used models created by Mori and Buterworth in a 2006 paper as a starting point. Using difference equations involving logistic equations for each species involved I created a loop using Mathematica to find the population in the next time step. I started with the equilibrium year of 1780 before harvesting began to these species. In this talk I will present my analytical and numerical findings regarding these populations. I will also compare my results and actual population estimates from 2006 to 2012 to population projections from Mori and Butterworth. In the end I plan on performing a sensitivity analysis.

**Presentation Type and Session:** Oral – Science, Mathematics, and Technology

### Contaminant Testing of South Park Lake, Lackawanna, New York

**Amanda Klawinski** and **Peter Zaffram**, GES 460: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Due to the location of South Park Lake in Lackawanna and its proximity to a golf course and industrial buildings there is a possibility of potentially harmful substances affecting the lake, its ecosystems and the residents of the area. This is a public area, used all year round as well as a habitat for various species. We want to identify any potentially harmful chemicals to protect the area. We are also interested in identifying if there are high nutrient levels, due

to fertilizer run off from the golf course, which could be causing problems in the ecosystem of the area and/or foul odors. We will also look for possible heavy metals from the industrial buildings in the area such as the Sorrento Lactilis Co. We will be testing six locations covering all aspects of the lake, including side ponds and incoming water sources. We will be taking two water samples at each location. Testing of these samples will be for alkalinity, nitrogen, pH, temperature, dissolved oxygen, pesticides, and heavy metals. Based on those results we may also do further soil sampling to test for major nutrients, acidity, pH level and lead contamination. This will help to study the spread of the contamination. Through this process, we believe we will find contaminants and high nutrient levels in the lake.

**Presentation Type and Session:** Poster VIII

### Cryptography: An Evolution From Hieroglyphics To the Internet Era

**Anthony Laffrado**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Peter Mercer, Mathematics and Professor Andrea Guiati, Director, All College Honors Program

The need for the use of encryption in today's world is growing rapidly with every step into our future. Cryptography is a field in which people whom are mathematically inclined and good at solving puzzles can apply themselves. Everything, from our pin numbers to our email passwords, is encrypted; we live in an era where cryptographers are needed more than ever before. However, to understand where we are going we must first understand our past. Cryptography spans all the way back to the days of hieroglyphics, and is seen all throughout history. The famous Arab mathematicians arguably invented the first true advanced methods of cryptography. Also, there are those out there who believe that we wouldn't have won the war if it were not for Alan Turing and company for breaking the German's codes. As I'm sure we all have seen the cryptoquip in the newspaper, cryptography is a career for mathematicians that can not only provide fulfillment in contributing to a growing area of knowledge, but can also be enjoyable. With references from peer reviewed articles, books written on the topic of cryptography and interviews from people whom are experts in the field. I intend to show that with the progression of time that the growing field will only continue to become increasingly relevant in our evolving world. With the era of the smartphones, the Internet, and technology the need for encryption grows with every stride we make in increasing our dependence on technology. Although a very challenging field of study, I truly believe that this is something that everybody can see the practical aspects of.

**Presentation Type and Session:** Poster VIII

### **Determination of Critical Micelle Concentration of Surfactants Using a Microfluidic Device**

**Hasina Hamin**, Chemistry and **Brandon Sligh**, Chemistry  
Faculty Mentor: Professor Jinseok Heo, Chemistry

We propose a new method of determining critical micelle concentration (CMC) of surfactants using the quenching effect of a fluorescence dye in a microfluidic device. A surfactant molecule consists of a hydrophilic head group and a hydrophobic tail domain. The addition of surfactants reduces the surface tension of a liquid. Aggregates of surfactant molecules, called micelle, form when the concentration of surfactant is greater than CMC. The measurement of CMC is important in biology and industry because the CMC value indicates the amount of surfactant required to reach maximum surface tension reduction. The CMC of a surfactant can be determined by tracing the change of chemical or physical property of the surfactant over a broad range of concentrations. The change is drastic before and after the CMC. The conventional methods for determining the CMC take a long time for analysis and are not ideal for high throughput measurement of CMC. Calcein, a fluorescent dye, shows fluorescence quenching at a high concentration (more than 10  $\mu\text{M}$ ). The formation of micelle will trap the calcein in the hydrophobic micelle core. The concentrated calcein molecules are expected to show the quenching effect in the micelle. This calcein quenching can be used to determine the CMC. Our research will be focused on implementing the CMC analysis based on the calcein dye in a microfluidic device. The microfluidic device enables the simultaneous collection of the fluorescence signal emitting from various concentrations of surfactant solution containing the calcein dye.

**Presentation Type and Session:** Poster VI

### **Determination of Menthol In Various Menthol-Containing Natural Samples**

**Sandra Jones** and **Nicole Martin**, FOR 614: Forensic Applications of Instrumental Analysis  
Faculty Mentor: Professor Alexander Nazarenko, Chemistry

Menthol ((1R,2S,5R)-2-isopropyl-5-methylcyclohexanol) is an organic compound with numerous applications in medicine, perfumery, in organic synthesis, and as a natural pesticide. We isolate it from peppermint oil using traditional precipitation procedure. For qualitative and quantitative determination of menthol in pharmaceutical samples, various extraction work-ups were employed. Nuclear magnetic resonance, Fourier transform infrared and Raman spectra of menthol were applied for positive identification along with traditional optical rotation and melting point determination methods. For determination of small and trace amounts of menthol, gas chromatography with flame ionization and/or mass spectrometric detection were the most suitable approaches. The results of menthol determination in

several pharmaceutical and natural samples will be presented and discussed.

**Presentation Type and Session:** Poster VII

### **Determination of Nicotine In Various Tobacco Samples**

**Chelsey Whitson** and **Melissa Boler**, FOR 614: Forensic Applications of Instrumental Analysis  
Faculty Mentor: Professor Alexander Nazarenko, Chemistry

Among natural alkaloids, nicotine is certainly one of the best known. The systematic name of nicotine is 3-(S)-(1-methylpyrrolidin-2-yl)pyridine. Isolation of nicotine from tobacco leaves includes extraction with hot, strongly alkaline aqueous solution, with subsequent distillation and precipitation of nicotine in a cation form with picrate or another suitable counter-ion. This solid was used for positive identification of nicotine using UV spectra, Fourier transform infrared techniques, mass spectra and nuclear magnetic resonance experiments. Pure nicotine can be isolated by solvent extraction with diethyl ether. Both gas chromatography (with flame ionization or mass spectra detectors) and high performance liquid chromatography are suitable for quantitative determination of nicotine and do not require derivatization. The specifics of nicotine determination analysis in natural tobacco-containing samples will be discussed. A simple UV spectrophotometric procedure can be used for determination of relatively large nicotine quantities after solvent extraction separation.

**Presentation Type and Session:** Poster VI

### **Determination of Synephrine In Weight Loss Supplements**

**Anita McAndrew**, CHE 495: Forensic Chemistry Applications  
Faculty Mentor: Professor Alexander Nazarenko, Chemistry

Synephrine (4-[1-hydroxy-2-(methylamino)ethyl]phenol) is a natural monoamine alkaloid of phenylethylamine group, which is commonly used as a component in weight loss supplements, and is also a natural alkaloid present in bitter orange essential oil. We apply nuclear magnetic resonance, infrared, and Raman spectroscopy for positive identification of synephrine after its isolation. Using varying methods of extraction we will qualitatively and quantitatively determine the amount of synephrine in pharmaceutical and natural samples. Derivatization is necessary for analysis using gas chromatographic separation with consecutive determination using flame ionization and/or mass spectrometric detection. Because of phenyl group in synephrine molecule, high performance liquid chromatography with UV detection does not require any derivatization and is therefore a natural and relatively simple alternative to GC/MS determination.

**Presentation Type and Session:** Poster V

## **Determination of Theobromine In Cocoa and Tealeaves**

**Sheila Hagerty**, FOR 614: Forensic Applications of Instrumental Analysis

Faculty Mentor: Professor Alexander Nazarenko, Chemistry

Theobromine, a bitter alkaloid, is present in cacao and to lesser extent, in tealeaves and is regularly consumed by many through consumption of foods and beverages. It is in the methylxanthine class of chemical compounds, along with caffeine and theophylline. Theobromine's systematic name is 3,7-dihydro-3,7-dimethyl-1H-purin-6-dione. Isolation procedure of theobromine from cocoa requires its extraction with subsequent removal of lipids ("cacao butter") and additional extraction of the alkaloid with methanol. The resulting crystalline compound was investigated using UV spectra, Fourier transform infrared techniques, mass spectra and nuclear magnetic resonance experiments. This can be used for positive identification of the compound. Both gas chromatography (with flame ionization or mass spectra detectors) and high performance liquid chromatography with UV spectrophotometric detection are suitable for quantitative determination of theobromine and do not require derivatisation. The peculiarities of theobromine analysis in natural samples will be discussed.

**Presentation Type and Session:** Poster V

## **Determining Neutron Age In Distilled Water**

**Steven Tarasek**, Physics

Faculty Mentor: Professor Michael DeMarco, Physics

During this beginning research project, our objective was to study the distribution of neutrons emitted from our Plutonium-Beryllium (PuBe) source as they travel through water. One of the characteristics of the neutrons is designated as Neutron Age, or Fermi age. Neutrons from the Pu(Be) source activate the In foil and produce gamma rays. Using the gamma rays that are proportional to the number of neutrons emitted from our Indium isotope, we determined the neutron age. The gamma rays were detected using a Germanium detector attached to a multichannel analyzer (MCA). Along with the age, we calculated the cross section for absorption of our Indium foil, as well as the neutron flux of our PuBe source. Fermi age for a particular medium is related to nuclear reactor design, helping to figure out how far to place fuel rods from one another in order to have the neutrons at the right energy to continue the nuclear fission chain reaction, while also keeping the reactor from overheating and melting down.

**Presentation Type and Session:** Poster VI

## **Effects of On-Campus Storm Water Mitigation Efforts To Scajaquada Creek**

**Jerome Krajna, Alyssa Russell, and Ashley Williams**, GES 460/529: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Scajaquada Creek, located within Erie County, New York, is a 29 square mile urbanized sub-watershed of the Lake Ontario basin, and a tributary of the Niagara River. Because Scajaquada Creek is located within an urbanized area it has been highly manipulated leading to degraded water quality. This has led Buffalo State College to implement on-campus storm water mitigation efforts with the goal of improving the water quality in Scajaquada Creek. In this study we will collect water samples every five days over the course of three weeks at three points along the campus' border with the creek, and a fourth sample in nearby Hoyt Lake. With these samples we will compare oxygen levels, pathogens, phosphorous, and the presence of floatables to samples collected prior to the mitigation projects implementation. We look to show that the on-campus mitigation efforts have improved the water quality of the creek.

**Presentation Type and Session:** Poster VIII

## **An Error Term For Levinson's Inequality**

**Allan Sesay**, Mathematics

Faculty Mentor: Professor Peter Mercer, Mathematics

Jensen's Inequality was discovered in 1906 by Danish mathematician Johan Jensen. It is a cornerstone of the theory of Mathematical Inequalities. It applies to functions which are convex – that is,  $f'' \geq 0$ . In recent years, researchers have found and used "error terms" for Jensen's Inequality. Levinson's Inequality was discovered in 1964 by American mathematician Norman Levinson. It applies to functions for which  $f''' \geq 0$ . In the project my goal was to find an error term for Levinson's Inequality. I began by studying several proofs of Jensen's Inequality and several methods for obtaining its error term. This involved reading mathematics papers published as recently as 2008 and 2010. The hope was that I could suitably modify one of those methods to get an error term for Levinson's Inequality. But after some time, it became evident that this could not be the case because Jensen's Inequality gives rise to a "linear functional" that is positive, while the linear functional arising from Levinson's Inequality is not positive. So whatever error term I might find had to have a different sort of character. But this apparent setback showed be not what to look for, which turned out to be helpful. After lots of reading and lots of thinking, I eventually found an error term. Very roughly, Levinson's Inequality reads (for  $f''' \geq 0$ )  $L_1 \leq L_2$ . I found that this could be recast as  $L_1 - L_2 = E$ , where E is the desired error term,  $E = -\frac{\beta f'''(\alpha)}{n} \sum_{i=1}^n (A_i - x_i)^2$ ,  $0 \leq \alpha \leq 1$  and  $0 \leq \beta \leq 1/2$ , and so in particular,  $f''' \geq 0$  gives is back Levinson's Inequality  $L_1 \leq L_2$ .

**Presentation Type and Session:** Poster VII



## **Fabrication of a Microfluidic Device Containing Multiple Parallel Channels For Fluorescence Sensing**

**Brandon Sligh**, Chemistry

Faculty Mentor: Professor Jinseok Heo, Chemistry

My presentation is about the fabrication of a microfluidic device containing twelve parallel channels for the simultaneous detection of various concentrations of a fluorescent solution. The device consists of an elastic polydimethyl siloxane (PDMS) polymer and a glass slide. This device will significantly save the consumption of chemical reagents requiring less than 10 uL of solution for analysis. Microfabrication is a key technology in the semiconductor industry. For my research the industrial microfabrication method was modified to suit for an ordinary chemistry laboratory that does not have a clean room facility. A photoresist solution was spin-coated on the glass surface. After a drying step, the photoresist layer was exposed to UV light via a photomask and developed in an alkaline solution. The photomask image was designed with AutoCAD and printed on a polyester film with a high-resolution laser printer. The developed photoresist was used as a master. PDMS molds were prepared by casting a PDMS prepolymer against the photoresist master and curing in a hot oven. The microfluidic device was completed by sealing the PDMS mold with a clean glass slide. The microfluidic device was tested using calcein, a fluorescent dye. Different concentrations of calcein solutions were filled in each channel of the device and the fluorescence image was obtained using a fluorescence microscope. Calibration curves could be easily constructed by analyzing the fluorescence signal from each channel. This microfluidic device will be used to quickly determine the critical micelle concentration of a surfactant.

**Presentation Type and Session:** Poster VIII

## **Fabrication of Microwell Array For Studying Single Cell Volume Regulation**

**Valerie Fleischauer**, Chemistry and Forensic Chemistry

Faculty Mentors: Professor Jinseok Heo, Chemistry and Professor Andrea Guiati, Director, All College Honors Program

Development of a single cell microwell array is important for studying or screening cells at single cell level in high throughput. Here we report two different methods of fabricating microwell array. For the first method, we formed a hexagonal-close packed single layer of microbeads on a glass surface by slowly evaporating a drop of polystyrene bead solution confined in a well defined hydrophilic surface. Then, heating the layer at 240°C for 1 min created good adhesion of the self-assembled layer on the surface. This fused bead layer can be successfully used as a master for making microwell array. The dimension of the microwell was restricted by the sizes of microbeads that were available. In addition, we constructed another master consisting of photoresist. The 25 x 25 microwell array pattern was imprinted on the photoresist-coated glass by exposing it to UV

light via photomask and a developer solution was used to reveal the array pattern. The dimensions of each microwell array can be easily controlled by changing the mask design. Microwell arrays were prepared by casting polydimethylsiloxane (PDMS) against either of the two masters. The trapping efficiency of these arrays for the bead and Madin-Darby Canine Kidney (MDCK) cells showed lower than ~10%. Our work is currently in progress to improve the capturing efficiency.

**Presentation Type and Session:** Poster VII

## **Factors Affecting Treatment Efficacy In Post-Mastectomy Lymphedema Patients**

**Shelby Baldwin**, AMT 495: Special Project for Applied Mathematics

Faculty Mentors: Professor Chaitali Ghosh, Mathematics and Professor Joaquin Carbonara, Mathematics

In this day and age, almost all of us are close to or at least know a woman who has had to undergo a mastectomy after being diagnosed with breast cancer. What many of us do not know is the uphill battle they face after this procedure; not only are they recovering from a major surgery but the onset of other conditions can make their daily life almost unbearable. One of these conditions is lymphedema, which is the acute or chronic swelling of a limb due to the lack of proper drainage of the lymph fluid. Post-mastectomy patients suffer from lymphedema in the limb corresponding to the side of their mastectomy resulting in deformity, pain and necrosis of the cutaneous tissue in severe cases. These women seek treatments including massage therapy, bandaging, kinesio taping and prescribed exercises over a course of weeks to reduce the swelling and to restore mobility. This project investigates the relationship between age, affected limb, number of visits, years since mastectomy, type of treatment and reduction in volume of affected limb after treatment, in a cross-sectional study of 45 upper extremity lymphedema patients between the ages of 41 and 93 years, identified from WNY Breast Health, Buffalo, NY. Factors affecting the efficacy of treatment are determined using standard statistical analysis to increase awareness of the odds of recovery from this debilitating condition.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology

## **Finding a Quarterback: Statistically Speaking**

**Breanna Fenski**, HON 400: All College Honors Program

Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

The purpose of my research project is to combine my two loves: statistics and sports. The premise of my project is to take an in depth look at a number of quarterbacks from their college playing days through the NFL. Not only did I look at successful professional

quarterbacks, but also ones that had good college statistics but did not succeed in the NFL. Using several online references, I observed various categories such as completion percentage, touchdowns, and interceptions. Also, I considered other factors such as combine statistics and how they affected their respective teams positively or negatively. Any overall team improvement would be considered a positive impact, and the opposite would be measured as a negative impact. I will use my findings to predict the success of some of the big name players who are entering the draft this year such as Andrew Luck and Robert Griffin III.

**Presentation Type and Session:** Poster I

### Geochemical Analysis of Associated Granite Bodies From the Eastern Sebago Pluton, Maine

**Krista Ventura**, Geology

Faculty Mentors: Professor Gary Solar, Earth Sciences and Science Education and Professor Paul Tomascak, Geochemistry (SUNY Oswego)

As part of a large-scale, ongoing project, the research focused on rocks in the northern Appalachians, north of Portland, Maine. Evidence shows partial melting of rocks during their deformation, and the emplacement of associated granite bodies of various sizes. Study of the relations of the mineral patterns and associated granite bodies at several scales is a means of understanding granite magma production, travel and emplacement as granite bodies. My work was focused on the geochemical analysis of granitic rocks from the Eastern Sebago Pluton. Geochemistry is used to help understand the age and composition of the rock source. Field work was done to obtain samples from the field area near Poland, Maine. Two distinct areas were explored for sampling, the Sebago Pluton, and an area to the north that has rocks of similar composition to that of the Sebago Pluton. We conducted new mapping along an E-W corridor along the north contact of the Sebago pluton as part of our lab's ongoing work on understanding the relation of the pluton to its migmatite-granite complex country rocks reported on previously by students in our lab in the last 5 years (LaFleur, Nyitrai, Bohlen, Naschke). In the summers of 2010 and 2011, we discovered this area of similarity to the pluton that was separated from the pluton by the migmatite-granite complex country rocks. Rocks in the pluton are typically medium-grained, and homogeneous 2-mica granite, whereas the complex outside the pluton is plastically deformed, strongly heterogeneous migmatites, and granites with varying solid-state fabrics. 2011 field work was required in order to both (1) check field data against my 2010 lab results, and to (2) continue mapping in unexplored parts of the field area near Poland, Maine. Geochemistry was performed on selected specimens in the geochemistry laboratory at Syracuse University. Results show positive correlations with previous field data.

**Presentation Type and Session:** Poster VI

### Growth and Low Temperature Optical Studies of $\text{HoMnO}_3$ Thin Films

**Anthony Delmont**, Physics

Faculty Mentor: Professor Ram Rai, Physics

We prepared multiferroic  $\text{HoMnO}_3$  by a conventional solid-state method. We used high purity  $\text{Ho}_2\text{O}_3$  and  $\text{Mn}_2\text{O}_3$  powder samples (and also  $\text{Ho}_2\text{O}_3$  and  $\text{MnO}_2$ ) to synthesize two different batches of  $\text{HoMnO}_3$ . The synthesized  $\text{HoMnO}_3$  compound was pressed into half-inch diameter pellets using a hydraulic press, and the pellets were used as the target material for the electron-beam system. To fabricate high quality thin films, we deposited  $\text{HoMnO}_3$  thin films on different single crystal substrates, such as sapphire, quartz, YSZ, and  $\text{LiNbO}_3$ , using the electron-beam evaporation system. We studied the growth parameters, such as substrate temperature, oxygen partial pressure, and evaporation rate to improve the quality of the thin films. All thin films with thickness ranging from 100 nm to 300 nm were annealed after each deposition. To characterize our thin film samples, we utilized a dual beam spectrophotometer (190 – 3000 nm) equipped with a liquid nitrogen-cooled cryostat. We also took advantage of our department's new spectrometer, which utilizes fiber optic cables and is much faster, to take preliminary room temperature transmittance and reflectance on our samples. Our transmittance data, measured at temperatures ranging from 78 K to 490 K, show insulating character with a weak Mn d to d electronic excitation at  $\sim 1.7$  eV. We also found that the electronic excitations of the  $\text{HoMnO}_3$  thin films are weaker than the corresponding excitations in the bulk samples, possibly due to quantum size effects.

**Presentation Type and Session:** Poster VI

### Has Cazenovia Park Impacted Cazenovia Creek?

**West Cassenti, Rafael Manenti, and Brittany Carlson**,

GES 460: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Recent flooding and a history of industrial development in South Buffalo, New York have potentially impacted Cazenovia Park. This research is to determine if any contamination of the park has taken place and in contrast if any contamination is occurring due to Cazenovia Park on Cazenovia Creek. The fragile balance of these adjacent entities is in question. Is Cazenovia Creek affecting the remediation of Buffalo's urban watershed and the park that houses a handful of community destinations, including a playground, bike path, pool house, casino, and a golf course. The research will be conducted on the creek and the park composed of water, soil and creek sediment samples in order to determine if the park is impacting the creek, vice versa, or the possibility of both entities simultaneously impacting the other. We will be testing for temperature, pH levels, and heavy metals, as well as phosphates and nitrates, which is essential in the event that any fertilizers are entering Cazenovia Creek upstream from the park, to see if

contamination is occurring due to such substances. Conversely, the park around the golf course will also be tested to see if that could be impacting the creek, so an inflow and outflow water test will be administered to Cazenovia Creek to determine if the creek is bringing in contaminants or picking contaminants up and transporting them downstream.

**Presentation Type and Session:** Poster VII

## Improvements To the Rotating Tank

**Kari Clayton**, Earth Sciences

Faculty Mentor: Professor Jude Sabato, Earth Sciences and Science Education

This project is part of a larger continuous improvement initiative to Buffalo State's Geophysical Fluids Laboratory. The rotation of the Earth in combination with thermodynamic properties of the fluid gives rise to various observable geophysical flows. The rotating tank can be applied to explore these types of flows on our own planet. Previous tank experiments have yielded positive results. The re-creation of simple atmospheric models has been achieved, including Taylor columns and rigid body flow. The canonical "dishpan atmosphere" experiment of Fultz (Riehl and Fultz, 1957) can now be reproduced consistently with the apparatus. We anticipate recreating forced turbulence and multiple jets as well as other complex flows after design enhancements are complete. The design enhancements are driven by obstacles experienced in the lab currently; the biggest challenge being the camera mount, the quality of data capture and the mounting arm which rotates with the tank. The improved framing design will allow for the use of the already purchased high-definition camera and slip ring, and remove the mounting arm. The existing apparatus is capable of making simultaneous in-situ measurements of temperature and rotation rate. With the enhancements described above, we will be capable of measuring pixel brightness values from the HD camera images. These data can be used to infer total column tracer concentrations (dye color).

**Presentation Type and Session:** Poster VI

## Interpreting the Eruptive History of El Salvador's Santa Ana (Ilamatepec) Volcano Though Detailed Stratigraphic Analysis of Pre-1904 Deposits

**Elisabeth Gallant**, Geology

Faculty Mentor: Professor Bettina Martinez-Hackert, Earth Sciences and Science Education

The Santa Ana volcano in densely populated El Salvador, Central America, presents serious volcanic hazard potential. The volcano is a prevalent part of every day life in El Salvador; the sugarcane and coffee belt of the country are to its Southern and Western flanks, recreational areas lies to its East, and second and third largest cities of El Salvador exist within its 25 km radius.

Understanding the eruptive characteristics and history is imperative due to the volcano's relative size and it's explosive, composite nature. Historical records indicate at least 9 potential VEI 3 eruptions since 1521 AD. The volcano's relative inaccessibility and hazards do not promote a vast reservoir of research, as can be seen in the scarcity of published papers. This research represents the first steps towards creating a comprehensive stratigraphic record of the crater and characterization of its eruptive history. Samples of pre-1904 eruptive material were taken from the southern wall of an E-W oriented fluvial gully located in the SSW of the tertiary crater. These were analyzed using thin sections and optical microscopy, grain size distribution techniques, and scanning electron microscopy. The 15-layer sequence indicates an explosive history characterized by intense phreatomagmatic phases, plinian, sub-plinian and basaltic/andesitic composition strombolian activity.

**Presentation Type and Session:** Poster VII

## Investigating the Role of Grp170a In Protein Folding Within the ER of *Caenorhabditis elegans*

**Nicholas Vaughn**, Biology

Faculty Mentor: Professor Gregory Wadsworth, Biology

For proteins to be functional they must fold into a specific three-dimensional structure. Improper folding of proteins can cause human diseases ranging from mad-cow to Alzheimer's and even to cancer. Proper folding of most cellular proteins is dependent on molecular chaperones. The largest molecular chaperone, GRP170, is localized in the endoplasmic reticulum (ER) and is thought to aid in the folding of secreted proteins. A strain of the small round worm *Caenorhabditis elegans*, which has a deletion mutation in its grp170a gene, is viable but has slowed development. To determine if unfolded proteins accumulate in the ER of this strain an hsp4:GFP reporter gene was used. This reporter gene expresses high levels of the fluorescent protein in any cell that accumulates high levels of unfolded proteins in the ER. These nematodes will be examined by fluorescence microscopy during embryogenesis, early larval development, and the adult stage of development. GFP fluorescence will indicate the locations in the nematode body where grp170a is most critical for protein folding.

**Presentation Type and Session:** Poster VII

## The Lifetime Effects of Fish Consumption In Western New York

**Jennifer Ickowski**, AMT 495: Special Project for Applied Mathematics

Faculty Mentor: Professor Joaquin Carbonara, Mathematics

Most educated fisherman in the Western New York area know the hazards of eating different fish from different bodies of water in the area. Unfortunately, there are several groups of people in the urban areas who rely on eating fish for their daily consumption of

food. The majority of these people do not have fishing licenses and they come from other countries. This makes it difficult for them to understand the toxicity of the fish in areas such as Niagara River, The Buffalo River, and Cayuga Creek. Cultural barriers and language make it even harder for these people to understand that what they are putting in their body will seriously damage them and their children later in life. This paper will discuss the regulations that the FDA and EPA have chosen for acceptable mercury levels from fish that are acceptable for consumption. The formulas they use to decide what is “acceptable” come from using default values and outdated information. The information that will be used to make better regulations for fish consumption comes from a study done by Buffalo Niagara Riverkeeper. Buffalo Niagara Riverkeeper is an organization dedicated to protecting and restoring the quality of the bodies of water in the Buffalo area. The goal of this paper is to inform the reader about the lifetime effects of consuming fish at higher levels from the bodies of water around Buffalo.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology

### Limitations In Forensic Science: PCR Inhibitors

**Miranda DeGroot**, Masters Forensic Science

Faculty Mentor: Professor M. Scott Goodman, Chemistry

The polymerase chain reaction (PCR) is a useful tool in forensic science, where it is used to amplify small quantities of DNA for analysis. DNA samples collected by forensic labs are often in trace amounts and successful amplification is necessary to ensure proper analysis. Many common substances have been found to inhibit PCR, which can lead to poor and inaccurate analysis results. This can be detrimental when analyzing forensic evidence available in only very limited quantity. The focus of the research presented is the study of coffee as a PCR inhibitor. The bulk of the findings support the idea that coffee prevents efficient PCR amplification of DNA, which negatively affects the results of subsequent analyses. Although most mechanisms of PCR inhibition are unknown, our research has eliminated the most common causes of inhibition, and we are working towards the development of a standard method to overcome the inhibition.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology

### Modeling of Multi-Phase Flow In Volcanic Conduits

**Alyssa Cederman**, Physics Secondary Education

Faculty Mentors: Professor Jude Sabato, Earth Sciences and Science Education and Professor Bruce Pitman (SUNY-Buffalo)

Time variability at the surface of an erupting volcano is often observed, yet there is little geological evidence of time variability within the magma chamber itself. In order to understand the nature

of volcanic eruptions we develop fully time dynamic models of the multi-phase flow in the volcanic conduit. We consider the vertical flux of the magmatic-gas mixture in the conduit over time, with constant pressure within the magma chamber and at the peak of the lava dome. We approach the problem through a combination of linearized stability analysis and numerical computation. We will also discuss changes of the stability properties as a function of changes to physical parameters. We aim to model the principle contributions to phase dynamics and stability.

**Presentation Type and Session:** Poster VIII

### Nature Play On the East Side

**Carole Anne Andrzejewski**, Individualized Studies

Faculty Mentor: Professor Cynthia Conides, History and Museum Studies

This project focuses on living collections within a museum setting. This is an innovative form of nature interaction described in museum literature as “Nature Play.” It provides museum visitors an opportunity to experience and learn about living collections outside of zoos and aquaria within a controlled but intimate educational environment within a traditional museum. Nature Play on the East Side was implemented in 2012 at the Buffalo Museum of Science. A twenty-gallon saltwater touch tank stocked with various invertebrates has given museum visitors — adults, children, and multigenerational groups-the opportunity to experience and connect with marine creatures that have previously been completely outside of their experience. The success of this project has led the museum to implement a larger, fifty-gallon touch tank that will contain a greater variety of invertebrates. This project adds to the growing body of literature in the field of museum studies that examines animal-specific programming in museums, and museums as sites of informal science learning. It is also a direct demonstration of the Interactive Experience Model described by Lynne Dierking that involves personal, social and physical contexts that influence how museum-goers behave, observe, and remember their museum experiences.

**Presentation Type and Session:** Poster I

### Nutrition For Less: A Linear Programming Problem For School Lunch

**Janet Albi**, AMT 495: Special Project for Applied Mathematics

Faculty Mentors: Professor Hongliang Xu, Mathematics and Professor Joaquin Carbonara, Mathematics

For decades, school lunch has been the leading source of nutrition for many students. While children may be receiving the correct nutrition at home, they are also getting the majority of their daily nutrition during the week while in school. Since most schools today offer both breakfast and lunch to students daily, they have made it their responsibility to make sure children are receiving the correct nutrition to keep them healthy while maintaining their



spending to stay within the budget. Using linear programming, it is possible to construct a mathematical model that will minimize the cost of all the components needed to make a series of meal plans for a given day, as well as maintain the required nutrition guidelines. We anticipate that this model could potentially be used to help schools better plan their meals to satisfy budget constraints in the future.

**Presentation Type and Session:** Oral – Science, Mathematics and Technology

## **Optimizing Check Digit Systems**

**Joshua Terhaar**, HON 400: All College Honors Program

Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Peter Mercer, Mathematics

The check digit system that UPC uses involves taking the modulo of a series derived from the digits themselves. While this system can detect some errors, it isn't perfect. For instance, the transposition error from 0-50000-30042-6 to 0-05000-30042-6 would not be caught since both strings satisfy the check digit calculation. Creating a check digit system involves a trade-off between efficiency and the scope of errors detected. There are two types of errors considered in this analysis. A substitution error occurs when one digit is entered wrong. A transposition error swaps two digits. A good check digit system should try to eliminate both errors with relatively few operations. I will explain the mathematics behind check digit efficiency and error correction and examine alternative mathematical approaches (i.e. Gumm's group theoretical method using the D-5 group) and summarize their costs and benefits. Coding the check digit error detection systems in C++ will aid me in assessing their complexity and speed. Using probability I will be able to assess the scope and pitfalls of their error detection. Upon completion I should be able to provide an analysis of optimal routes for check digit error detection.

**Presentation Type and Session:** Poster VIII

## **Petrographic Analysis of the "Log-Jam" Schist, Connecticut**

**Kelsey Murphy**, Geology

Faculty Mentor: Professor Gary Solar, Earth Sciences and Science Education

Western Connecticut's "log-jam" schist is a unique rock unit of the Rowe schist. It is dominantly a granitic gneiss after metamorphism from a granitic protolith. The unit is famous by its very large crystals of the metamorphic mineral kyanite that are observed up to 1 meter in length. Surrounding matrix rock minerals include quartz, feldspars, chlorite and biotite micas, amphiboles, and sillimanite. The kyanite crystals are "porphyroblasts" because they are much larger relative to the matrix. They are the usual focus of study prior to the work done by students in our lab (starting in 2001). Studies of the matrix minerals and textures before then did not exist, so matrix mineral textures were not documented.

My study builds on the work of 3 previous undergraduate student projects from our lab. The rock samples studied were collected previously, and prepared for microscopy. I studied 16 thin sections cut from these specimens because although they were analyzed for mineral composition, they have not been described at depth for mineral patterns between the kyanite and the matrix (the "fabric"). In my work, I documented grain size, arrangement of grains (texture), orientation of grains, grain boundary geometry, evidence of retrograde mineral growth (at lower temperature), and mineral defects (such as crystallographic folds). Using these detailed descriptions, we learn more about geologic history such as the pressure-temperature range in which the rock was formed and its tectonic history. Results show foliation patterns throughout the thin sections defined by the mineral muscovite. Kyanite porphyroblasts, cleavage and fracturing are all oriented similarly, and there is evidence of retrograded staurolite to biotite in most slides. Many biotite crystals are partly altered to chlorite (further retrogradation). The matrix is seen to drape around larger minerals. Overgrowth of quartz and micas are common, and quartz and amphibole crystals are typically undulose extinct indicating high-temperature strain after metamorphism.

**Presentation Type and Session:** Poster VIII

## **Preliminary Findings On the Correlation of Volcanic Ash, Santa Ana Volcano, El Salvador**

**Mark Tate**, Earth Sciences

Faculty Mentor: Professor Bettina Martinez-Hackert, Earth Sciences and Science Education

Recently, volcanic ash samples representing historical eruptions (that potentially represent the last 500 years) were collected and analyzed for their grain morphology, geochemistry, grain size and location within the stratigraphic column. This project focuses on the preliminary findings from field work conducted in March 2012 to find equivalent layers at other locations of the volcano and to trace and map their distribution and thickness. This project focuses on the already described layers (most recent four eruptions) to identify other potential field locations by using the now known characteristics of these eruptive products. Correlation of these volcanic deposits across the Santa Ana volcano is imperative to produce isopach maps (maps which describe variations in layer thicknesses) of ash distributions. These maps tell us much about paleowind directions and eruptions on the flanks of the volcano (lateral blasts). Samples from the new field locations will be analyzed for identity and compared to already analyzed ones. Identifying, tracing, and understanding these layers will give insight to the changes the volcano underwent throughout recent history, and allow us to better determine the future of the volcano's dangers.

**Presentation Type and Session:** Poster VIII

## Proteins Associated With Hsp110 In Developing *Drosophila* Embryos

**Rujing Wen**, Masters Biology

Faculty Mentor: Professor Douglas Easton, Biology

Heat shock proteins (Hsps) are a group of highly conserved proteins that are well distributed in the phylogeny. *Drosophila melanogaster* embryos are endowed with large amounts of Hsp110 (110 kiloDalton) synthesized in the ovaries of female flies during oogenesis. This level is maintained constant during embryogenesis, with newly synthesized (zygotic hsp110) replacing the maternal store as it turns over. This indicates the necessity of maintaining high Hsp110 levels. It has been found that Hsps act as molecular chaperones that assist in protein folding and the refolding or degradation of aggregated proteins. Hsp110 appears to act as a co-chaperone in complex with hsp70 in mammalian cell. The location and expression level of Hsp110 has been determined by using a Green Fluorescent Protein (GFP) that is fused on the N-terminus of Hsp110 protein. A new rapid method of immunoprecipitation of GFP fusion proteins, GFP-Nanotrap will co-immunoprecipitate the proteins that associate with Hsp110 in vivo at different embryonic development stages or under different experimental conditions. The nature of the associations between Hsp110, Hsp70 and Hsp90 in *Drosophila* embryos is being investigated by determining whether hsp110 is associated (co-precipitates) with them. This would implicate the roles of Hsp110 as a chaperone by itself or as a co-chaperone with other associated proteins during the development of *Drosophila* embryos.

**Presentation Type and Session:** Poster VII

## Record Low Snowfall On Buffalo State Campus

**Branden Peplowski**, Geography

Faculty Mentor: Professor Stephen Vermette, Geography and Planning

Snow spotters on the campus of Buffalo State participated in a regional network of snow spotters. Campus snow spotters were responsible for snowfall measurements, taken between November 1, 2011 and March 30, 2012. Snowfall measurements were made with a yardstick and were taken on flat surfaces, either on the grass or sidewalk, avoiding snow drifts and wind scoured areas. A reported snowfall value usually involved averaging multiple measurements from a site. This winter's snow total of 27 inches was the lowest ever measured on Campus, since records were first taken in the 1999-2000 snow season. The highest snowfall season on campus occurred during the 2004-2005 season, where 96 inches of snow fell on campus. The previous lowest snowfall season, with 48 inches, occurred the following winter season of 2005-2006. This year's snow totals halved the previous lowest total and was 40.8 inches below the 11 year average of 67.8 inches. Over the 2011-2012 snow season, no snowfall was measured during the month of November. The month

of December reported 1.5 inches. January experienced the most snowfall, with 15.5 inches, and February started off snowy although only accumulated 8.5 inches. March was limited to only 1.5 inches of snow. Campus snow totals were less than the airport's total of 34.2 inches (by the end of February). The 2011-2012 winter season has brought more rain to the region, because the temperatures were warmer than normal. Another thing unique about this winter season was the fact that the fallen snow did not last long on the ground — a few inches of snow usually melted the next day or even that same day it fell.

**Presentation Type and Session:** Poster IV

## A Risk-Based Approach To Environmental Policy: Shortcomings In Legislation and Risk Assessment of Environmental Impacts

**West Cassenti**, Earth Sciences

Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

Construction of environmental policy is a difficult task and depends upon objective science and a keen sense of cumulative net impacts concerning damage to the environment. Actions that have an impact on the environment often cause a ripple effect that cannot be mitigated and overextends the reach of the policy under which the action falls. This may also occur where no regulations exist, leaving regulatory agencies no precedence and no legislation to act on behalf of. These instances often go ignored or overlooked. Rather than approaching environmental issues from a political or economical standpoint, impacts should be assessed by the risk posed to the environment consisting of the ecological and human environment. By looking at gaps and shortcomings in policy, a well-rounded point of view can be derived in order for more effective environmental policies to be produced that encompass all aspects of a potential action and impede negative impacts. Risk-based assessments are constituted under current policies, such as National Environmental Policy Act (NEPA) and State Environmental Quality Review (SEQR) Act by way of an Environmental Impact Assessment (EIA), but should be adapted to form and benefit all environmental policy. The goal of this research is to identify the shortfalls of environmental policy, the strains placed on policy formation and an alternative method of policy development.

**Presentation Type and Session:** Poster VIII

## Simple Flow Visualization Techniques For Rotating Fluids

**Natalie Alvut and Michael Ludwick**, GES 499: Geophysical Fluid Dynamics Lab

Faculty Mentor: Professor Jude Sabato, Earth Sciences and Science Education

The complexities involved in geophysical fluid dynamics typically make it difficult for introductory students to understand the concepts behind fluid behavior. It is especially difficult to then

take those concepts and relate them to real-world applications. If students cannot grasp the material on a small scale, it is not likely that they will be able to comprehend the actual processes surrounding fluid dynamics that happen on our planet. Our research has been dedicated to figuring out methods in which we can visually connect images from the tank to images of oceanic and atmospheric processes on Earth. We have taken videos of several introductory activities with the goal of improving the visual quality of each experiment. Improvements that we have made include new equipment and designs for the tank that will allow experiments to be carried out with minimal interruption and error. We are currently experimenting with fluorescent dye and black light to eliminate shadowing in the videos of our experiments. Also, we have discovered ways to make the visual aspect of tank activities more similar to images of Earth. This allows for abstract ideas about fluid dynamics replicated by the tank to be made concrete, thereby facilitating the students understanding of real-world processes. Our hope is that students will gain a stronger understanding of the subject matter by relating a small-scale visual reference to the large-scale processes that are actually at work on our planet.

**Presentation Type and Session:** Poster VIII

### **The Snow Season That Wasn't**

**Michael Borrelli**, Geography

Faculty Mentor: Professor Stephen Vermette, Geography and Planning

On the Buffalo State campus, snow spotting should be a whirlwind of activity of running out between classes to measure different spots to get an average snowfall depth or jumping snow drifts to get to that perfect last patch of untouched snow in the courtyard. This season was anything but exciting from a snow standpoint. My ruler and I were underworked this season with only 27 inches of measured fallen snow, which is well below the campus average. With only one synoptic snow event that brought over four inches of snow to the campus, this winter was not your typical Buffalo State winter. Buffalo's snow season, as defined by the National Weather Service, occurs between November 1st and April 30th. Buffalo State College's snow season is moderated a bit because of our proximity to Lake Erie. This snow season was warmer than average, with slightly above average precipitation amounts that fell mostly as rain. Compared to past winters, this was the least snowiest winter on Buffalo State Campus since Snow Spotter records were started in the 1999 - 2000 snow season. This snow season also saw the Buffalo State campus relatively unaffected by any large-scale lake effect event. Only one such storm dropped snow on campus and that was "Eloene" that gave 2 inches on Jan 13-14, 2012.

**Presentation Type and Session:** Poster II

### **Spatial Analysis of Sex Crimes Within the City of Buffalo, New York**

**Jennifer O'Neil**, Criminal Justice

Faculty Mentor: Professor Tao Tang, Geography and Planning

The research focuses on the spatial analysis of sex crimes within the City of Buffalo, NY during the years of 2009 and 2010. The analysis highlights possible key correlations between rapes and factors such as known/unknown relationships between victim and suspect, frequency during fall/winter and spring/summer months, distance from municipal housing units and occurrences within proximity of colleges and universities. Data was obtained through Buffalo Police Department incident reports and analysis was conducted by using Geographic Information Systems (GIS). The study concluded that 72% of rapes involved a known relationship between victim and suspect and 61% occurred during the spring/summer months. Additionally, 29% of rapes occurred within 0.5 miles of municipal housing units and 41% occurred within 1 mile of colleges and universities. Keywords: rapes, alcohol, juveniles, narcotics, municipal housing authority, spatial distribution

**Presentation Type and Session:** Poster I

### **Structure Function Analysis of the Innexin Shaking-B: Role of the N-Terminus In Establishing Rectifying Gap Junctions**

**William Marks**, Biology

Faculty Mentor: Professor Martha Skerrett, Biology

Innexins are invertebrate proteins that form gap junctions, dense arrays of intercellular channels that allow for the direct sharing of ions and small metabolites between cells. The Shaking B innexins are expressed in the central nervous system of *Drosophila melanogaster*, where they form a rectifying electrical synapse that allows impulses to travel unidirectionally from the brain to the flight muscles. These rectifying junctions play an integral role in the visually mediated escape reflex of arthropods. In order to understand electrical rectification at a molecular level, site-directed mutagenesis was used to alter the constituent proteins. The amino terminal domain of the innexin Shaking B (lethal) was replaced with that of Shaking B (N + 16), the proteins were expressed exogenously, cells were paired overnight, and gap junctions were analyzed using dual cell two electrode voltage clamp techniques. Electrophysiological analysis confirmed that properties of rectification are determined largely by the amino terminal domain of ShkB innexins.

**Presentation Type and Session:** Oral — Science, Mathematics and Technology



### **Studies of Growth and Optical Properties of LuFe<sub>2</sub>O<sub>4</sub> Thin Films**

**Aaron Sprow**, Physics and **Anthony Delmont**, Physics

Faculty Mentor: Professor Ram Rai, Physics

Our research was primarily concerned with the preparation method and optical characterization of epitaxial lutetium iron oxide LuFe<sub>2</sub>O<sub>4</sub> (LFO) thin films. Growth parameters considered included pellet composition, pellet size, evaporation method, substrate composition, and substrate temperature. Successful results were achieved using stoichiometric proportions of Fe<sub>2</sub>O<sub>3</sub> and Lu<sub>2</sub>O<sub>3</sub> that were ground and pressed into approximately 3 gram per pellet, followed by sintering at 1100 °C. The LFO thin film deposition process started with heating the target pellet by an electron beam for roughly an hour, and then slowly evaporating LFO onto (001) LNO, (111) YSZ, (001) sapphire, and (001) quartz substrates at 750 °C, to a thickness of about 300 nm. We measured transmittance and absorbance on the annealed LFO thin films as a function of wavelength, varying from ultra-violet to near infrared wavelengths (200 – 3000 nm). The optical data demonstrate that LFO is an insulator having a well-defined energy gap and several electronic excitations associated with charge transfer transitions. Estimating from the absorption spectra, the energy band gap was found to be about 2.20 eV at 300K.

**Presentation Type and Session:** Poster VI

### **Studies of the Gap Junction Protein Connexin31**

**Orlando McEwan**, BIO 498: Biology Honors

Faculty Mentor: Professor Martha Skerrett, Biology

Gap junction channels allow direct communication between adjacent cells. Gap junction channels of chordates are composed of connexins, with six connexins required to create a half-channel, also known as a connexon or hemichannel in each adjacent cell. An intercellular gap junction channel is created when a connexon from one cell docks with a connexon from an adjacent cell. In humans, twenty connexins are expressed in specific but overlapping patterns to create gap junctions with a diverse set of properties. Connexin31 (Cx31) is expressed in the auditory system and skin of humans where it is expected to interact heterotypically and heteromerically with several other connexins. Mutations in Cx31 are associated with multiple human diseases including deafness and erythrokeratoderma variabilis (EKV). The mutation Cx31L34P causes EKV and this study was designed to further assess the characteristics of this mutation at a molecular level. The amino acid leucine at position 34, was modified to tryptophan (Cx31 L34W) using site-directed mutagenesis. Other studies suggest that the amino acid at position 34 interacts closely with another protein domain and we aimed to confirm this for Cx31 by substituting tryptophan for the native leucine at position 34.

**Presentation Type and Session:** Poster VI

### **Surface Water Quality and Risk Analysis In a Peri-Urban Area, Thailand**

**Jameieka Price**, Masters Multidisciplinary Studies

Faculty Mentor: Professor Kim Irvine, Geography and Planning

The Rangsit Canal, Pathum Thani, Thailand, receives runoff and contaminant inputs from urban and agricultural activities. Water quality in a section of the canal was examined by comparing sample results with Thailand's water quality standards, the approximate delta method to characterize system metabolism, and a microbial risk analysis to assess potential for waterborne infections. Dissolved oxygen and BOD levels did not meet Thailand's Class 3 standards. Continuous, automated monitoring of dissolved oxygen revealed a pronounced diel trend driven by photosynthesis during the day and respiration at night. Compared to many water bodies, however, the primary production of the canal was low and can be classified as heterotrophic. Based on a microbial risk assessment and considering infection risk standards, E.coli levels measured in the local sewer system ( $10^6$  CFU/100 mL) and canal ( $10^4$  CFU/100 mL) produced unacceptably high risk for activities that included swimming, vegetable farming, fishing, and sewer pump station operations. E.coli in piped water to an informal community on the canal was 0 CFU/100 mL in half the samples. The highest E.coli level (800 CFU /100mL) associated with the piped water source was found in a traditional (uncovered) water storage jar, which emphasizes the importance of appropriate water storage.

**Presentation Type and Session:** Oral – Science, Mathematics and Technology

### **Textural and Structural Connections Along the Metamorphic Field Gradient In Philadelphia, PA**

**Jennifer Wehrfritz**, Earth Sciences and Geology and **Albert Tahan**, Geology

Faculty Mentor: Professor Gary Solar, Earth Sciences and Science Education

The Wissahickon schist type locality along Wissahickon Creek in SE Pennsylvania (Philadelphia), is composed of pelitic schist (metamorphosed shale) interlayered with psammitic gneiss and quartzite (metamorphosed sandstone). The type locality is known for its complete record of [Barrovian] metamorphic zones. The metamorphic field gradient increases SSE in the creek valley for 5km from chlorite to second sillimanite zone, and at a high angle to the trend of the mineral-defined structures (fabrics). The chlorite zone in the N is within and adjacent to the ENE-striking, dextral-transcurrent Huntingdon Valley shear zone system (active at 300 million years ago). A transect along the creek is across both the metamorphic zones and the structural grain, permitting documentation of the relations between the metamorphic and deformation fabrics. We mapped along the east valley slope starting in the chlorite zone to the SSE for 2.8km, into the kyanite zone.



With increasing grade there is both general coarsening in the pelitic layers and shallowing of foliation dip, but relatively consistent ENE-WSW strike. Foliation is steeply-to-moderately dipping in the lower grade zones (N), and shallowly-to-moderately dipping in the higher grade zones (S). Oriented specimens of pelitic schist were collected from 47 stations, and thin sections were made for microscopy according to fabrics in order to document the progression of porphyroblast (larger mineral) - matrix (bulk rock) fabrics along the field gradient. Microstructures and kyanite porphyroclasts indicate retrograde metamorphism, and field relations indicate a sharp boundary between shear zone-affected and non-affected rocks. Our data illustrate a direct relation between the metamorphic field gradient and the strain associated with the shear zone system in the N, consistent with previous studies that cite regional deformation the cause of the metamorphic zone pattern in this part of the Appalachian orogen. However, our data show the transition from shear zone rocks to "wall" rocks is much more abrupt than anticipated.

**Presentation Type and Session:** Poster VI

### **Tift Nature Preserve Soil and Water Analysis**

**Annabelle Wardzala, Josh Vernold, and Brice Reed,**

GES 460: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

The 264-acre Tift Nature Preserve is a former Brownfield used from the late-1800's to mid-1900's "as a dump site for slag, fly ash, foundry sand, harbor dredge spoils, and refuse" (Tift Management Plan, 2009). During the 1950's and 1960's a garbage dump, located in the northwest portion, was used for industrial waste, with no proper precautions taken to prevent the spread of contamination. Tift Nature Preserve is famous for its garbage mound hills, called "The Mounds," which were filled with 2 million cubic yards of garbage during the 1970's. Buffalo Sewer Authority followed high quality landfill procedures in the Mounds. We will collect soil and water samples from throughout the area to test for contaminants associated with landfill leachate, and heavy metals associated with industrial manufacturing. Soil samples will be tested for arsenic, chromium, lead, mercury, and zinc. Water samples will be tested for dissolved oxygen, pH, and temperature which indicate the overall quality of the water; as well as salinity, phosphates, nitrates, iron, chromium, lead, and arsenic. There is also a 74-acre wetland, Cattail Marsh, which was never used for dumping; we will also collect samples from this area. Due to the past land use on the site we expect to see elevated levels in the soil of heavy metals, and phosphates, nitrates and dissolved salts in the water. We also expect to see differences in the contaminant levels between Cattail Marsh, the Mounds, and the northwest industrial disposal fields due to their distinctive pasts.

**Presentation Type and Session:** Poster VIII

### **Tourmaline In Relation To the Sebago Pluton Contact Zone In Sebago, Maine**

**Maxwell Hain, Geology**

Faculty Mentor: Professor Gary Solar, Earth Sciences and Science Education

Collisional tectonic processes create very large mountains (e.g., the Himalayas), but are mostly recorded in rocks at great depth ( $> 10$  km), out of direct view. Therefore ancient cores of mountain belts/collision zones are studied where rocks are exposed after erosion (e.g., the Appalachians, collision ca. 400-300 million years ago). This project research focuses on rocks in the northern Appalachians, north of Portland, Maine, where rocks are part of such a belt. Partial melting of rocks occurred during the collision, and emplacement of granite bodies (plutons) of various sizes. For this project, I examined rocks, in particular looking at tourmaline crystals, at the eastern edge of the ca. 293 million-year-old Sebago pluton. This work built on former undergraduate researcher projects that either mapped or studied individual exposures in this area. My work focused on individual mineral tracks in the Sebago pluton-surrounding rock system to answer the question of how tourmaline in granites as an accessory mineral has recorded the pluton emplacement. Several traverses were conducted to produce a detailed map across the pluton showing the different locations of tourmaline, and their textural and structural variations in relation to the pluton. In all, 19 localities were examined, and 15 samples of tourmaline-bearing granite were collected and processed in the lab for further study. Results show that although there are many different types of granite, tourmaline occurs in one of two styles in them, either disseminated, and smaller (2-4 cm), and within the granite in the north, or isolated in dikes, and larger (2-8 cm) in southern exposures. Although I interpret the formation of tourmaline in dikes to processes similar to those documented for gold mineralization (because both occur in contact with quartz), work at the microscale is ongoing to assess the textural significance of the disseminated tourmaline found in the northern locations.

**Presentation Type and Session:** Poster VIII

### **Trends In U.S. Mathematics Achievement Over Forty Years**

**Tara Blair, HON 400: All College Honors Colloquium**

Faculty Mentors: Professor David Wilson, Mathematics and Professor Andrea Guiati, Director, All College Honors Program

The United States is faced with the realization that American education is falling behind to its foreign counterparts. However, is math one of the subject matters in which the United States does not seem to excel within? Through collected data from assessments such as the National Assessment of Educational Progress, the First International Mathematics Study, and the Second International Mathematics Study, I hope to highlight the trend in mathematical competency in the United States and compare it internationally starting in the 1960's and working my way to the 2000's. By

comparing different studies from various points of view on mathematical achievement I will provide a clear picture of where the United States stands internationally throughout the latter half of the 20th century. Another question I plan to address is whether or not there has been a significant growth in mathematical competency throughout the early 2000's or if we are just coasting along. With any passage of time, improvement is a must; however, is the United States mathematical achievement progressing at an impressive and envious rate or simply coasting along?

**Presentation Type and Session:** Poster VI

### **Tryptophan-Scanning of the Amino Terminus of Connexin32**

**Amy Bednarek**, Bio 314: Advanced Cell Biology  
Faculty Mentor: Professor Martha Skerrett, Biology

The connexin family of proteins forms gap junctions in chordates. Each connexin has four transmembrane domains, a cytoplasmic amino terminus (N-terminus), a cytoplasmic carboxyl terminus (C-terminus) and two extracellular loops. The specific role of the N-terminus of connexins is poorly understood. In this class experiment we altered the N-terminus of Connexin 32 using tryptophan-scanning mutagenesis. Site-directed mutagenesis was used to alter the nucleotide sequence of a purified plasmid DNA sample containing Cx32. We generated fourteen different mutations changing the wild type sequence of residues 2 through 14, to tryptophan. We also included mutations of the native tryptophan at position 3 to alanine (Cx32W3A) and phenylalanine (Cx32W3F). After we obtained our mutated plasmid DNA sequences we were able to transcribe RNA in vitro. For exogenous expression of connexins, *Xenopus* oocytes were surgically removed and treated with a morpholino antisense oligonucleotide, which knocks out the endogenous *Xenopus* Cx38. The RNA that was transcribed in vitro was injected into the oocytes. The oocytes were paired, one wildtype and one mutant, and the effects of the mutation were tested by voltage clamp method.

**Presentation Type and Session:** Poster VII

### **The Use of Microsatellites As a Means To Study the Population Structure of the Eastern Hellbender Salamander, *Cryptobranchus alleganiensis alleganiensis***

**Sarah Chudyk**, Masters Biology Secondary Education  
Faculty Mentor: Professor Amy McMillan, Biology

Populations of the Eastern Hellbender salamander, *Cryptobranchus alleganiensis alleganiensis*, are quickly declining, making this a species of special concern in New York State. Contributing factors to their decline include UV radiation, predation, disease, habitat modification, and changes in climate. Because of this, hellbender habitats are becoming fragmented. This leads to isolation among populations, which impedes gene flow between

populations of hellbenders. In order to determine how to conserve hellbenders, the structure of their populations must be studied to determine the genetic diversity present. Microsatellite markers are a powerful tool used to study the genetic makeup of a population. Primers developed by Unger and Duvra for the Eastern Hellbender salamander will be used in this study. The primers will be used to amplify microsatellite regions of highly polymorphic loci of hellbender DNA. The optimal annealing temperatures of these primers will be determined using hellbender tissue samples collected from the Buffalo Zoo. Genotyping of these hellbenders will be conducted, which will show the genetic diversity among these hellbender samples. This genetic information will then be used for a parentage analysis on 50 hellbender samples from the Buffalo Zoo. Educational material will be developed for the Buffalo Zoo hellbender exhibit to spread an awareness of the importance of conservation genetics. In addition, a series of lesson plans for use by biology teachers will be developed as an important application in the teaching of genetics to high school students.

**Presentation Type and Session:** Poster VII

### **Using Our National Parks As a Means To Study the Geologic History of the United States**

**Steven Dillsworth**, Earth Science Secondary Education  
Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

There are 58 national parks in the United States and its territories, all with one goal in mind: To preserve areas that have great scenic and scientific importance, with boundaries that provide for enough land and water to protect these valuable resources. Using our national parks is therefore an excellent way to study the elements of physical and historical geology in a nontraditional way. By focusing on a number of parks located throughout the United States, the geologic history of each park can be studied, interpreted, and then extrapolated to give us better insight into the overall geologic history of the United States. The parks can be classified by the major geologic processes responsible for their formation such as weathering and erosion, continental and alpine glaciation, volcanic activity, among others. In order to conduct such a large-scale research project, various online resources as well as printed resources are utilized. Finally, the geologic processes of the national parks are then tied into the processes that shaped the landscape of the United States.

**Presentation Type and Session:** Poster VIII

## **Water Permeability of Junctional Proteins In a Non-Junctional Membrane**

**Jaafar Hamdan**, Biology

Faculty Mentor: Professor Martha Skerrett, Biology

Gap junctions are intercellular channels that connect the cytoplasm of two cells, allowing molecules and ions to pass freely between cells. Each intercellular channel is made up of two hemichannels, also known as connexons, and in chordates each hemichannel is composed of six connexin proteins. Connexins have four transmembrane helices and two extracellular loops containing -strand structures that are structurally essential for the two connexons to dock at the extracellular gap to form a gap junction channel. It is not currently known whether hemichannels play a role in water movement across the plasma membrane prior to gap junction formation. Using the *Xenopus* oocyte expression system, different connexins were used to test the hypothesis. Oocytes were injected with the desired RNA, incubated at 18 degrees C for 24 hours to allow protein expression and then dropped in hypo osmotic solution (water). The "time-to-rupture" was recorded and compared to AQP1, a known water channel, as a positive control. Preliminary data suggests that most connexins mediate movement of water across the plasma membrane, some more efficiently than others. Swelling rates will be further assessed using time-lapse photography and analytical software.

**Presentation Type and Session:** Oral – Science, Mathematics and Technology

## **Water Quality Analysis In Murder Creek**

**Joseph Halleck**, GES 460: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Murder Creek, located in the Village of Akron, New York is an interesting local waterway with a somewhat unfortunate history, as the site of more than one ill-famed murder. In 2011, the Erie County Soil & Water Conservation District started a stream bank stabilization project on Murder Creek at Brooklyn Street. The project includes installation of approximately 675 linear feet of rock riprap along the lower bank of Murder Creek to stabilize and protect the toe and multiple riparian plantings to promote soil stability along the upper slope and behind the installed rock. During the project sediment and erosion controls including a cofferdam and silt fencing will be used to maintain the water quality of Murder Creek. In addition, there are been other recent bridge construction projects that moved significant amounts of sediment. Murder Creek is a class C waterway with a history of industrial use; however, the Village of Akron water supply is from the Murder Creek reservoir that is located in Bennington, NY. I proposed to take water samples from multiple sites along the creek, checking standard water quality parameters, as well as sampling for metals such as Chromium, Copper, Iron and Nickel to see if the

stabilization project or bridge construct projects have re-released contaminants into the water.

**Presentation Type and Session:** Poster VIII

## **Western Boundary Current Simulation Using a Differentially Heated Rotating Annulus**

**Annabelle Wardzala**, Earth Sciences

Faculty Mentor: Professor Jude Sabato, Earth Sciences and Science Education

We are looking to answer two questions through a series of experiments. First, under what conditions can we simulate a Western Boundary Current? Second, how does the radial heat flux change under varying conditions? To answer the questions we choose three experiments based on theoretical predictions. All of the experiments will be conducted in the Geophysical Fluid Dynamics Laboratory, using an annulus with ice in the center of the apparatus analogous to the Earth's poles; thermal couples will be set up in systematic intervals to record the temperature. The first experiment will be differentially heated, room temperature at the outer edge and freezing in the center, this is the control experiment and we expect to see no Western Boundary Current; spinning the tank at a small rotation rate ( $\Omega$ ), large enough that  $Ro < 1$ , but small enough that the fluid is in the Hadley Regime in which flow occurs in a non-turbulent jet-stream. The second experiment will have the same initial set up with the addition of a radial barrier blocking the axis symmetric flow; dyes and glitter will allow the observation of the movement of fluid parcels. The third experiment has the same initial set up as the control with the addition of a radial barrier, and a sloping surface on the floor of the annulus, this represents the varying bathymetry of the ocean floor; the -effect, a variation of the Coriolis Force, is an effect of the curvature of the Earth and the slope along the radius of the tank is theoretically equivalent to the sphericity of the Earth.

**Presentation Type and Session:** Poster VII

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## *Psychology and Social Sciences*

### **ADHD and Adjustment To College: Major Changes and Grade Retention**

**Amanda Grenier**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

There have been several recent studies pertaining to ADHD and its effects on college students' academic success as well as students' ability to adjust to their academic lives. However, less research has been conducted on the effects that ADHD symptoms have on aspects of college such as course failure, knowledge of college policies, frequency of major changes, and the number of colleges students attend. I hypothesize that those with ADHD symptoms will take longer to graduate and will be more likely to change majors due to impulsivity. I further hypothesize that those with more symptoms will be less aware of college policies. Because colleges are concerned with retention and graduation rates, it would be beneficial to determine whether or not symptoms of ADHD have any relationship with these factors in order to enhance retention rates. Data are currently being collected and results will be presented at the celebration.

**Presentation Type and Session:** Poster IV

### **ADHD Symptomology In the Elderly**

**Mary Wagner**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

ADHD is commonly diagnosed in childhood, but many adults continue to live with undiagnosed and untreated ADHD. The present study sought to examine ADHD symptomatology in the elderly population. Many individual in their 60's, 70's, 80's and 90's may continue to live with undiagnosed and untreated ADHD. The estimated prevalence of ADHD in adults is about 4-5%, but little is known about prevalence or symptomatology in the elderly. Among adults, ADHD symptoms are associated with continued risks and problems such as higher rates of traffic accidents, more job turn over, higher divorce rates, less satisfaction in relationships, poor money management and impulsive shopping. The study investigated the similarity of patterns of known childhood and adulthood ADHD behavior and risk to retrospective reports of ADHD behaviors reported by the elderly. The results indicated that, when controlling for both gender and cognitive function, those who reported more childhood symptoms of ADHD also reported more difficulties with relationships and money management throughout their adult lives.

**Presentation Type and Session:** Poster V

### **Alternative Political Thought and Real Political Practice**

**Robert Horwitz**, PSC 470: Senior Seminar

Faculty Mentor: Professor Patrick McGovern, Political Science

There is continuing controversy as to whether unconventional or conventional modes of political participation are more effective

in achieving the goals of environmental protection. The Earth Liberation Front (ELF), an international group of environmentalist working through covert cells around the world, utilizes unconventional political participation to protect the environment. For the past two decades these "eco-terrorists" have used arson, sabotage and intimidation to harass corporations, businesses and other organizations that harm the environment. I hypothesize that the ELF as a whole has been successful in achieving their long-term objective of environmental protection without directly physically harming animals and humans. For the purposes of my research I have created a database of ELF actions from 1996-2009, taking into account the type of unconventional action and the long-term effects that it had in protecting the environment directly. From these actions I will be employing a stratified sample that will provide two ELF actions from each of three different categories. These categories are based on an ordinal scale ranging from small, medium, and large ELF operations as determined the amount of property damage they caused (\$1 – \$99,999, \$100,000 - \$999,999, \$1000,000+). Environmentalists and law enforcement officials will be interviewed as well to help assess the impact of ELF actions. The results from this study may be useful for other citizen groups as to whether unconventional political participation is an effective strategy in achieving their stated goals.

**Presentation Type and Session:** Poster V

### **The Ambassador Shuffle**

**Sarah Brown**, HON 400: All College Honors Colloquium

Faculty and Staff Mentors: Professor Andrea Guiati, Director, All College Honors Program and Ms. Jessica Eagen, Undergraduate Admissions

As a Student Ambassador there are several responsibilities within the Undergraduate Admissions Office of Buffalo State College. Checking e-mail, making telephone calls, and providing tours are just the tip of the iceberg. Student Ambassadors work with prospective students to make their opinion of Buffalo State College the best that it can be. Do Student Ambassadors actually make a difference on the campus? With tours being the focal point of the program, what is the percentage of students who take tours and then decide to attend Buffalo State College? This project will look at how many prospective students take a campus tour and then attend Buffalo State College as a freshman. This data will also be compared to the total number of prospective students that take campus tours. The research completed includes comparing the sign in sheets of each daily tour from January 2010 through August 2011, versus the list of deposited freshman students from the spring and fall 2011 semesters. Completed surveys from tour participants will also be examined to see how the Student Ambassadors are performing on their tour. To wrap up the project, a look as to what current Ambassadors believe it means to be an Ambassador will also be examined. Presented as a poster and portfolio, this project will give an in-depth look into what the role of an Ambassador is and why



they are imperative to the Buffalo State College campus.

**Presentation Type and Session:** Poster I

### **Anybody Seen That Hominin? Cataloging Hominin Casts With PastPerfect**

**Megan Barr**, ANT 495: Past Perfect

Faculty Mentor: Professor Julie Wieczkowski, Anthropology

Collections management includes everything that is done to document, care for, and develop museum collections and make them available for use. Computerized inventories are nearly indispensable for keeping track of items, their storage locations, and relevant documentation. PastPerfect has become the most widely used museum collection management software, with thousands of organizations using it worldwide. PastPerfect conforms to the latest standards for cataloging archive, library, historic object, art object, natural history, archaeology, and photograph collections. The Anthropology Department has a large collection of hominin fossil casts. In using PastPerfect, I will manage this collection by cataloging it according to typical museum collection management policies. This documentation will include object identification, a full description of each item, place of origin, age of the fossil, year excavated, condition, and present location; this information will be accompanied with photographs of every object. This project will provide me with experience using the museum collections management system, and also provide access to the organized information and fossil casts for the faculty and students within the Department. The acquisition of this software by the Anthropology Department will allow for the continued management of its many other teaching collections, such as its Skeletal Collection and Archaeological Collections.

**Presentation Type and Session:** Poster III

### **Archaeology At Old Fort Niagara**

**Jennifer McLaurin**, ANT 499: Old Fort Niagara Excavation Report Writing

Faculty Mentor: Professor Susan Maguire, Anthropology

The 2011 Buffalo State College Archaeological Field School at Old Fort Niagara sought to explore the everyday lives of the soldiers at the fort during the War of 1812. Four 2m by 2m units were excavated along the foundation of the Red Barracks, an early 19th century barracks which served as an infirmary for American soldiers before the British takeover of the fort in December 1813. The excavation was held over the course of 6 weeks, during which time a number of artifacts were recovered. These artifacts included, but were not limited to, window glass, nails, musket balls, buttons, animal bones and projectile points. After the conclusion of the excavations, myself and another Anthropology student cleaned, identified, and cataloged the artifacts recovered during the excavations. I am currently assisting in the preparation of the excavation report for the field school. As part of this work, I

have been working with the computer software ArcGIS. Using this software, I digitized the foundation walls located during the excavations. The archaeological traces of the foundation of the Red Barracks can be digitally overlapped with historic plans of the fort from the early 19th century to show changes in the layout of structures at Old Fort Niagara over time and to check the accuracy of the historic plans of the fort.

**Presentation Type and Session:** Poster II

### **Are We Smarter With Our Hands? Relationship Between Gesturing and Fluid Intelligence**

**Carla Kuhl**, PSY 499: Independent Study

Faculty Mentor: Professor Stephani Foraker, Psychology

We all struggle to remember things. Research shows mental imagery is an effective encoding mnemonic (e.g., Barresi and Silbert, 1976), and recently, research investigating gesturing shows it has a facilitatory effect on learning and unintentional encoding (Cook, Mitchell, and Goldin-Meadow, 2008). In this study, we tested whether natural gesture rate modulated the effectiveness of gesturing as a memory strategy. We predicted that those with a high natural gesture rate would benefit more from the gesture strategy than those with a low rate. We also measured fluid intelligence to assess its impact on memory recall and relationship to gesture rate in our task (Sassenberg, Foth, Wartenburger, and van der Meer, 2011; Wartenburger, Kuhn, Sassenberg, Foth, Franz, and van der Meer, 2010). To establish gesture rate, participants were first videotaped narrating a video clip and explaining how to wrap a gift. Later, the rate of representational gestures per second was calculated and a median split defined high versus low gesture rate groups. The 80 participants were randomly assigned to the imagery or gesturing strategy, which were used to learn 30 unassociated word pairs for cued-recall, immediately after learning and two days later. Following the delayed memory test, participants completed the fluid intelligence test (Raven's Advanced Progressive Matrices). High versus average fluid intelligence was calculated according to the manual. Results indicated immediate and delayed cued-recall was superior for imagery over gesturing, with no effects of gesture rate on recall. However, high fluid intelligence facilitated recall, which was increased by an imagery strategy.

**Presentation Type and Session:** Poster II

### **Articulate Ancients: Cave Art As Communication**

**Angela Broughton**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Lisa Anselmi, Anthropology and Professor Andrea Guiati, Director, All College Honors Program

Paleolithic cave paintings are commonly viewed by the lay public as a primitive attempt at creating art that are closer to doodles than any modern masterpiece. However, creating Paleolithic cave art

was a laborious process from start to finish, making it unlikely that the people would have afforded time and resources to this work unless there was some purpose or meaning behind it. My project will explore the placement of the paintings, the manufacture of the pigments used, paint application techniques, and the themes and patterns in the design of these paintings. I will also analyze different hypotheses that explore the significance these works held for the people of the Upper Paleolithic period. My research will focus specifically on caves in France including Chauvet, Pech Merle, Lascaux, and Niaux that range in date from 33,000 years ago to 10,000 years ago. This time span encompasses the known period of cave art creation in Europe during the Paleolithic. In addition to my research I will recreate and display “cave paintings” of my own, crafted from similar materials and using similar methods available to the ancient artists. Through this portion of the project I hope to gain a better understanding of the processes involved and demonstrate the labor required to create these works. My goal is to foster a better understanding of this important step in the development of human culture and communication.

**Presentation Type and Session:** Poster III

### **Assessment of “Anxiety” In Rats Using an Elevated Plus Maze**

**Chris Cejka**, Psychology and **Melissa Young**, Psychology  
Faculty Mentor: Professor Jean DiPirro, Psychology

This research is designed to investigate the anxiogenic effects of predator scent (i.e., cat-scent exposure) in rats. Previous studies in our laboratory and that of others have demonstrated that cat-scent exposure elicits defensive responding in rats in an open field apparatus that is interpreted as a heightened level of “anxiety”. If this interpretation is valid, then it should be confirmed using other tests of anxiety. The elevated plus maze (EPM) is a tool that has been used extensively in many pharmacological/behavioral assessments of anxiety. In this test, the time spent by a rat in the open arms of the maze compared to the closed arms provides an indirect measure of anxiety. That is, a more anxious rat will spend more time in the closed (protected) arms and less time in the open (unprotected) arms than will a less anxious rat. We hypothesize that cat-scent exposure will decrease the time spent in the open arms (i.e., increase the time spent in the closed arms) of an EPM compared to rat (control)-scent exposure. Twenty Long-Evans (hooded) adult male rats will serve as subjects. A two-group between-subjects design will be used ( $n = 10$  rats per group). Each rat will be exposed to a cat-scented or rat-scented cloth for 15 minutes. Immediately thereafter, the behavior of each rat will be assessed in the EPM for 10 minutes. A confirmation of our hypothesis will provide additional support for the validity of predator-scent exposure as a good rat model of “anxiety”.

**Presentation Type and Session:** Poster IV

### **Buffalo State College Students: An Analysis of Factors Affecting Their Perceived Sexual Behaviors**

**Brittany Edwards**, Sociology

Faculty Mentor: Professor Ron Stewart, Sociology

This study examines subjective and objective variables on the perception of college students’ views on safe sex. More specifically the subjective variables include attitudes toward binge drinking, sexual promiscuity and the use of drugs (other than alcohol) and the objective variables include gender, class rank and residency. Despite the ongoing efforts to educate college students about the risks associated with unsafe sexual behavior, the majority of students have multiple sex partners and report using condoms inconsistently during intercourse (Lewis, Miguez-Burbano, and Malow, 2009). Suggestions for future research and policy implications are offered.

**Presentation Type and Session:** Oral – Social Sciences

### **Bullying: Behavioral Consequences On College Students**

**Latrell Sturdivant**, Psychology

Faculty Mentor: Professor Dwight Hennessy, Psychology

The current study examined two types of bullying behavior and victimization (direct and cyber bullying) and their relationship to self esteem and coping strategies. It was hypothesized that 1) cyber bullying would be more common than direct bullying among college students, 2) there would be a gender difference between types of bully victimization where men would report higher rates of victimization from direct bullying and women would report higher rates of victimization from cyber bullying, and 3) self-esteem would be lower in those with elevated cyber bully victimization. A questionnaire was distributed among Buffalo state College students, containing questions about direct and cyber bullying and victimization, as well as global self esteem and typical coping strategies. As predicted, cyber bullying and victimization were more common than direct forms. Also, self esteem decreased with increased cyber bully victimization. Further, self esteem was negatively related to cyber bullying but in interaction with externalized coping where at low levels of self esteem, cyber bullying was greater among those with low externalizing (low personal esteem plus don’t generally “release” their stress immediately and directly), but at higher levels of self esteem, cyber bullying was greater for those with high externalizing (personal esteem and do tend to vent directly and immediately). Contrary to expectations, this was the only coping response that was significant, and the regressions for direct victims and bullying showed no significant outcomes. Finally, contrary to predictions, no gender differences were found for cyber or direct bullying and victimization.

**Presentation Type and Session:** Poster I

## **Change Blindness At the Movies**

**Ryan Brownell, Lindsay Cosenza, Amanda Grenier, Caley Wekenmann, Latisha Swanston, Raisa Reyes, Alyssa Grove, Tessa Bechtold, Chris Miller, Nolan Przybyciel, Lauren Stanley, Nick Schultz, Amanda Wasielewski, DeLeon Hughes, and Jessica Brow,** Psychology Club  
Faculty Mentor: Professor Stephani Foraker, Psychology

Sometimes we are so focused on one thing going on that we miss relatively big or important changes going on around us. Researchers call this “change blindness” and have shown that participants concentrating on counting basketball passes will not notice a gorilla walking through that group of people (Simons and Chabris, 1999). Other studies by Simons and colleagues have looked at color changes in clothing, background objects gone missing, and changing one person for another, but there is not much research on how the magnitude of the change affects its detection. We compared small, medium, and large changes found in movie mistakes. Participants watched two small, two medium, two large, and three no-change video clips two times. After the first time, they just described the events and whatever they saw. The second time, they were instructed to look for a change, and describe it in detail. We predict that the larger the change, the sooner and more often they will be detected. Women may also detect changes better than men, if they are more detail oriented.

**Presentation Type and Session:** Poster II

## **Changing of the Guard: How Mao and Nixon Changed Their Ideologies**

**Jonathan Keenan,** SOC 208: Sociology of Contemporary China  
Faculty Mentor: Professor Jie Zhang, Sociology

Richard Nixon, former US president and Mao Zedong, former ruler of China were leaders of their respective countries forming careers based on the correctness of their ideology and the evilness of each other. I will study the backgrounds of both politicians to gain a basic understanding where they began and how they reached their high positions of influence. From this, I will look into how they changed over time to creating a co-inhabiting relationship between these two opposing nations. This diplomatic change was crucial in setting up Sino-American relations for the rest of the Cold War as well as into the post-Cold War era. The distinct hatred that formed after the Chinese Communist Revolution has changed to one of companionship, beginning with talks between Nixon and Mao. This is going to be a library archive research from a historical perspective.

**Presentation Type and Session:** Poster I

## **Communication Strategies: Recruiting Students For Study Abroad**

**Victoria Church,** HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Pamela Kloc, Communication

Studying abroad provides a valuable educational experience for students. It allows pupils to travel to new and unique places

while simultaneously advancing their studies. Regardless of duration or destination, students will benefit from considering the career implications of their decision to study abroad. Buffalo State College and the SUNY system offer ample opportunities for students to take advantage of such programs, but they must first make students aware that those programs exist. Too often, campus efforts to “internationalize” focus on the academic logistics of supporting study abroad opportunities. There is not always a careful and intentional approach taken to providing an integrated effort to harmonize student support services – principally between the study abroad and career service offices – to guide a student on the best way to make their decision to study abroad and become aware of how the experience may impact their career development. This project applies techniques used in public relations to examine the strategies used by the Buffalo State College International Education Office to attract students to the study abroad programs. It will include an interview with a member of the International Education Office as well as a student survey assessing the knowledge students have of the various programs and suggestions of ways to make international education more accessible.

**Presentation Type and Session:** Poster I

## **Dear Professor, So You Think You're Having an Effect On Your Students**

**Tyler Sutton,** PSY 499: Independent Study  
Faculty Mentors: Professor Howard Reid, Psychology and Professor Jill Norvilitis, Psychology

The goal of the present study is to examine if undergraduate psychology students' attitudes toward statistics and their views of psychology as a science change as they progress through psychology statistics and research methods courses. Previous research has indicated that within the course of a semester student attitudes about statistics don't change, while their knowledge about the subject does. In addition, research has shown that students who have positive attitudes towards statistics show higher scores in regards to openness to experience, and confidence, while math anxiety is inversely associated with self-efficacy. We plan to examine these personality measures as well as measures for curiosity and liberalism, and predict that those students who score higher on psychology as a science and who have a positive attitude toward statistics will likely show higher scores on all of these traits. This study will also manipulate a variable called “mythbusters”. Mythbusters will involve introducing one class to the results of studies that dispel commonly held beliefs. We are examining whether this intervention will influence the way students see statistics. No research exists that deals with the changing of academic attitudes through the manipulation of this form of class exercise.

**Presentation Type and Session:** Poster I



## Democracy In the United States and China

**Adonis Kernen**, SOC 208: Sociology of Contemporary China

Faculty Mentors: Professor Jie Zhang, Sociology; Professor Eric Krieg, Sociology; and Professor Amitra Wall, Sociology

At either the international political level or the inter-subjective personal level, the ability to understand others is a valuable skill. In the Western World, democracy is a universal goal; yet, it is highly variable. This research examines the roles that social perception and culture play in the construction of the idea of democracy. This research also examines literature and shows how sociological concepts can enhance a multicultural understanding of “democracy”. In China, the democracy “ideal” is often challenged by the Western World view.

**Presentation Type and Session:** Oral – Social Sciences

## Digitizing Corporal Collections

**Brandi Simmang**, ANT 495: Cataloging Bones

Faculty Mentor: Professor Julie Wieczkowski, Anthropology

The Department of Anthropology has a substantial collection of natural human skeletal remains. The collection is used for the upper division courses ANT 324 Human Skeleton and ANT 325 Forensic Anthropology, as well as for independent studies. However, there is currently no database with easily accessible information about these remains. The goal of this project is to create a database to aid in teaching and research. The museum cataloging software “Past Perfect” was used for this project. The completed database will include information from previous independent studies (bone measurements, stature, age and antemortem skeletal anomalies) as well as notes about the general condition of the bone. A bar code will be assigned to each bone individually. This bar code allows for quick access to the information associated with the bone or human skeleton. The software allows for more information to be shared, stored, secured and retrieved. Finally, the outcome of this project is to create a collective body to hold and store current information in order to assess what still is needed to be researched on the skeletal collection. Students in the future will contribute information to the database.

**Presentation Type and Session:** Poster II

## Distinguishing Defiant Drinkers

**James Harter**, PSY 496: Honors Thesis

Faculty Mentor: Professor Michael MacLean, Psychology

In a recent study done by MacLean and Harter (2011), a new college drinking motive, known as defiance, was endorsed by 68% of current drinkers and found to be significantly related to alcohol use and alcohol-related problems. Defiance drinking is drinking because it is forbidden and one wishes to defy parental and/or societal restrictions, perhaps as a way of demonstrating autonomy and independence. Another possible motive explored is drinking as an excuse. Excuse drinking is blaming alcohol as to why something

can't be done and/or to escape responsibility. The current study has two objectives. The first objective is to develop reliable and valid scales for measuring defiance and excuse drinking motives among college drinkers and will involve enhancing, refining and evaluating the defiance and drinking as an excuse scales developed by MacLean and Harter (2011). The second objective is to identify subsets of college drinkers based on their drinking motives with a particular focus on examining how those who drink primarily for defiance and excuse reasons differ from those who drink for other reasons. Participants will be college students (ages 18-21) primarily from Buffalo State College. Collection of data will occur through the use online and paper versions of the survey. In order to test the validity and reliability of the defiance and drinking as an excuse scales, confirmatory factor analyses will be run. In order to discover possible subsets of defiance drinkers, cluster analysis will be run. Data collection is in progress and results will be presented at the conference.

**Presentation Type and Session:** Poster III

## Economy of Refugees: What Factors Contribute To Employment Status of Liberian Refugees In Staten Island, New York?

**Khadijat Olagok**, PSC 330W: US Foreign Policy

Faculty Mentor: Professor Kyeonghi Baek, Political Science

What is the employment state of Liberian refugees in Staten Island, New York? I conducted phone surveys of 300 hundred respondents and a series of interviews and find that half of the participants had a U.S elementary education level (equivalent to the US 6th grade level education), while the rest of the participants have between a middle school, high school and college levels of education. I also find that over 50 percent of the participants are fluent in English. Many of the Liberian refugees who live in Staten Island are often subjected to menial jobs. The transition from Liberia to America with little to no work experience has made it difficult for Liberians to thrive in Staten Island. I argue that Liberians are at a disadvantage when it comes to seeking stable and high paying employment because of discrimination and the lack of government support.

**Presentation Type and Session:** Poster III

## The Effect of Predator-Stimulus Exposure On Defensive Responding In Rats

**Melissa Young**, Psychology and **Chris Cejka**, Psychology

Faculty Mentor: Professor Jean DiPirro, Psychology

This research is designed to gain insight into the effect of predator-stimulus (i.e., cat scent) exposure on defensive responding in rats. Studies in our behavioral neuroscience laboratory, among many others, have shown that cat scent (i.e., a cloth exposed to the dander of a live cat for 7 days) is sufficient to induce defensive



responding in rats; however, different potency levels of cat scent have not been investigated. The current study will determine if defensive responding varies with the potency level of cat scent administered via the cloth. The potency level will be a function of the number of days (3, 7, or 10) that the cloth is exposed to a live cat. Forty Long-Evans (hooded) adult male rats will be used as subjects. Rats will be habituated to all testing procedures for 3 consecutive days prior to testing. Rats will be gently hand-held by each experimenter for 7 consecutive days prior to testing. During testing, rats will be exposed to a cat-scented or rat-scented cloth (control) in an open field apparatus. We hypothesize that rats exposed to greater potency levels of cat scent will exhibit greater defensive responding than will rats exposed to lower potency levels. The results should provide important information about predator-scent exposure as an effective animal model of "anxiety". A good animal model of anxiety can be used to further investigate human anxiety states/disorders such as posttraumatic stress disorder, which plague approximately 40 million people per year and for which no effective biological treatment currently exists.

**Presentation Type and Session:** Poster V

### **The Effects of Driving Personal Space and Personality On Tailgating Behavior**

**Rebekah Whited**, Psychology and **Paul Incorvaia**, Psychology  
Faculty Mentor: Professor Dwight Hennessy, Psychology

The purpose of this study was to investigate how personality traits influence driver space preference and tailgating. Personal space has been defined as the amount of space an individual established between oneself and another person (Sommer, 1969). Hennessy (2010) argued that personal space can be extended to one's possessions. For example, personal space is extended beyond the body to include the vehicle while driving. It has also been found that we develop a general "psychological" preference for such space, which can be reflected in our driving tendencies (Hennessy, 2010). In the present study, participants viewed two video clips: 1) through the windshield of a car approaching another car and 2) through a rearview mirror of the car being approached from behind. They used a "stop method" to indicate space preference where they were asked to stop each video indicating the spacing between vehicles they generally prefer when they drive. The distance in the front was measured as "active space" (space they can control in real driving through their actions) and in the rear as "passive space" (space controlled by others in real driving). Overall the study found that personal factors do impact both active and passive driving space preference. Specifically, a conscientiousness X driver aggression interaction was found where lower conscientiousness was associated with closer space preference at low levels of driver aggression, but at high levels of levels of aggression, low, moderate, and high conscientiousness groups displayed similarly far distance preference. These findings were consistent across both active and passive space,

although more prominent for active space preferences. This suggests that low conscientious drivers may tailgate more often, but that other personality factors, such as aggression that motivates drivers to avoid other drivers who are the source of frustration and irritation, may temper its impact.

**Presentation Type and Session:** Poster III

### **The Effects of Intimate Partner Violence On Young Adults: Academic Achievement, Sleep Quality and Socialization**

**Chanele Haynes**, Criminal Justice

Faculty Mentor: Professor Peter Carey, Criminal Justice and Dr. Mary Carey (SUNY Buffalo)

College students experience high levels of violence among intimate partners during their college years, with wide prevalence rates ranging between 20% and 50%. Yet the effects of intimate partner violence on young adults attending urban colleges are not well understood. It is hypothesized that intimate partner violence (IPV) will have a negative association with academic achievement, social interaction and sleep quality. A paper and pencil anonymous questionnaire was distributed to students during the Fall 2011 and Spring 2012 semesters. At the beginning of class of at least second-semester freshmen, informed voluntary consent was obtained and the 15-minute surveys were distributed to students. In case the survey upset the students, contact information for local emergency counseling was given to all students. Among five classes approached, 202 surveys were distributed resulting in 196 valid surveys. More than half of the students were white (52%), female (60%) and on average 21 years old (range 18-28 years). The students included all levels from freshman to seniors. Over 40% of the students reported being exposed to IPV; however in regards to exposure, there was no difference among race, sex, age or class. This is among the first studies to quantify the prevalence of IPV among college students and the effect of IPV on college students. The results from this study will help colleges understand students' experiences with IPV and to implement efforts to mitigate their deleterious effects on grades, sleep quality and socialization.

**Presentation Type and Session:** Oral – Social Sciences

### **The Effects of Judge Gender On Jurors' Decisions To Follow Directions**

**Leticia Tellez**, Psychology and Women and Gender Studies

Faculty Mentor: Professor Jennifer Hunt, Psychology and Women and Gender Studies

Does the gender of a judge and his/her communication style have an impact on jurors' decisions to follow the legal instructions s/he provides? Gender roles are generally accepted beliefs about how men and women should behave. Role Congruity Theory (Eagly and Karau, 2002) suggests that individuals are evaluated by how closely they follow their gender roles. When people do not follow

their gender roles, they are judged negatively. For example, women who use a masculine speech style tend to be judged negatively (Hippel, Wiryakusuma, Bowden, and Shochet, 2011). Also, the occupation of judge is considered strong and authoritative, as seen in their delivery of instructions and their admonishment of attorneys when they step out of line. For this reason, the position of judge is typically associated with men. In my research, I am investigating how a judge's gender and speech style affects jurors' decisions to follow instructions. Participants will listen to a trial in which a judge instructs jurors to ignore inadmissible evidence and then answer a questionnaire about their trial judgments and impressions of the judge. I expect to find that female judges who admonish lawyers will be judged negatively. I also expect to find that jurors will be less likely to follow instructions to disregard inadmissible evidence when the judge is a woman, especially if she uses a masculine style of speech.

**Presentation Type and Session:** Poster II

### Effectiveness of Federal SAFER Grants In the Recruitment of Volunteer Fire Fighters

**Joseph Ehnes**, PSC 470W: Senior Seminar

Faculty Mentor: Professor Laurie Buonanno, Political Science

Over the past few decades the volunteer fire service has seen a decline in its membership. This decrease is problematic because local fire departments must comply with staffing, response and operational standards established by the National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA). To address this staffing problem, the US Department of Homeland Security-FEMA established a grant program, Staffing for Adequate Fire and Emergency Response (SAFER), for fire departments and volunteer firefighter interest organizations to help them increase the number of trained firefighters available in their communities. The existing literature is inconclusive as to whether SAFER grants and other similar grant programs have the intended positive effect on recruitment. I hypothesize that SAFER grants have a positive effect on recruitment. My null hypothesis is that non-monetary inducements (such as family and friend persuasion, social rewards, and strong belief in community involvement) better explain fire company volunteerism. My sampling frame is FEMA's list of fire departments that have received SAFER grants in Erie County. Using a multistage random sampling technique and matched pair technique, I selected two fire companies (one that received a SAFER grant and one that did not). I conducted structured interviews with fire chiefs and randomly selected firefighters from both companies in order to collect data to test my research hypothesis. I will report the results of my data analysis.

**Presentation Type and Session:** Poster V

### Eurythmy and the Etheric Body Applied To Language Processing

**Maude White**, PSY 330: Psychological Power of Language

Faculty Mentor: Professor Stephani Foraker, Psychology

Is the physical body capable of storing speech memory, and how could one predictably and reliably access memory through the body? Eurythmy is a form of movement created by Rudolph Steiner as a way to shape the etheric, or spirit body as it emerges from the physical human body in speech. The gestures of eurythmy are believed to be the physical expressions of the air created by the vocalization of sounds. Thus, the spoken word is believed by Steiner to be a shaping of the spirit presence of the living being, and therefore eurythmy is believed to be the physical manifestation of the spirit body, and inextricably linked to speech. Given this, I pursued the possibility that the gestures of eurythmy may aid in the recovery of lost speech production, for example following stroke or other damage to speech areas of the brain (Broca's area). Also, embodied cognition theory proposes that the physical body as well as the brain may store, help access, and recreate language knowledge. I consulted Maria Ebersole, an eurythmy therapist based in East Aurora, New York. I present my findings about the gestures of eurythmy and the possible links to mental and physical health.

**Presentation Type and Session:** Poster III

### Examining the Role of Property Rights In the Same-Sex Marriage Debate

**Christina Julien**, PSC 470W: Senior Seminar

Faculty Mentor: Professor Laurie Buonanno, Political Science

Do laws forbidding same-sex couples to marry infringe on their property rights? According to legal scholars, property rights include estates, wills, pensions, and final testimonies. In democratic capitalist societies the right to property is a fundamental right of all citizens, one that has been extended through the course of history to historically disadvantaged groups. Lesbian and Gay couples face discrimination in many aspects of their lives, most recently in the denial of the right to marry. Marriage, itself, is considered a fundamental right that enjoys special consideration in the law with respect to property rights of both partners in the marriage. I hypothesize that same-sex couples are currently denied legal property rights in those states that do not permit same-sex marriage or civil unions. This is because if a couple is not permitted by the law to marry, those individuals are denied the property protections enjoyed by individuals who are married. I will test my hypothesis by comparing the property rights of couples in New York—where same-sex marriage is legal—and Florida, where same-sex marriage is forbidden and civil unions are not provided for in the law. These states provide a good basis for comparison because they are similar in population and demographics. My data collection consists of interviews with several same-sex couples in Florida and New York State. My results will contribute to our understanding of

whether the US Defense of Marriage Act (DOMA) and state DOMAS are unconstitutional by unfairly denying same-sex couples their fundamental rights as American citizens.

**Presentation Type and Session:** Poster V

### **Exploring a Possible College Drinking Motive: Defiance**

**James Harter**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

Drinking is associated with numerous problems and negative consequences for college students. When it comes to college drinking, there are four motives that are typically studied in the field of psychology: coping with negative emotions, enhancement of positive emotions, enhancement of socializing, and conformity. The purpose of this study was to propose a possible new motive known as defiance drinking. Defiance drinking is drinking because it is forbidden and one wishes to defy parental and/or societal restrictions, perhaps as a way of demonstrating autonomy and independence. The study comprised of 291 participants, (138 potential participants were removed because they were over 21 years of age or because of validity issues and another 108 participants were excluded due to not reporting alcohol consumption in the last month). Confirmatory factor analysis and mediational analysis were conducted to test whether defiance drinking motives were adequately measured and whether they are significantly associated with alcohol outcomes. The results indicate that defiance drinking motives partially mediate the relationship between deviance-proneness and alcohol outcomes. This suggests that defying authority is a motive for some underage college drinkers and that it is tied to a tendency to break rules and to experience alcohol-related problems. Defiance drinking motives appear to be worthy of additional study.

**Presentation Type and Session:** Poster IV

### **Eye Tracker and Art Perception**

**Victoria Bitterman** and **Kathryn Przybysz**, PSY 488: Internship

Faculty Mentors: Professor Howard Reid, Psychology, Professor Lin Xia Jiang, Fine Arts, and Professor Stephani Foraker, Psychology

Our study is using an eye tracker apparatus to examine whether or not there is a difference in perception of pictures between novice and trained artists. Previous eye tracker research has examined complex art issues, such as whether novices and trained artists view abstract paintings differently. There is no previous research comparing the variables we are examining. Specifically we are using an eye tracker apparatus to record the eye movements of students in art classes and non-art classes while looking at relatively simple drawings. These black and white drawings consist of objects, faces, and human figures. The drawings will be shown in pairs, with one correctly drawn and one that is identical except for a minor error in perspective or proportion. We will be measuring the amount of time

spent focusing on the errors. Our prediction is that the amount of time that subjects focus on the errors will increase with the amount of art training they have received.

**Presentation Type and Session:** Poster II

### **Fair Trade and Organic Consumption: African-American Students' Attitudes Toward Food Choices**

**Ariel Peters**, PSC 470W: Senior Seminar

Faculty Mentors: Professor Patrick McGovern, Political Science and Professor Kyeonghi Baek, Political Science

There has been an abundance of research done about the psychological traits of fair trade and organic consumers and the emerging trend of political consumerism. However, little research has been done exploring African-American attitudes toward purchasing organic products. Of those studied, people who identified themselves as purchasers of fair trade and organic products were often motivated to purchase because of social pressure, beliefs about social justice, perceived health benefits, price and availability. My research will examine a relationship between African-American consumers and their attitudes toward organic and fair trade products. I hypothesize that African-American consumers perceive organic and fair trade food products differently from their white counterparts. This would fall into line with theories suggesting that African-American consumers may be acculturated toward food differently from white consumers. Using random sampling techniques, I will complete an analysis of survey data collected from Buffalo State College students regarding their food preferences and purchasing habits. Conclusions from this study may then be used to assess consumer behavior towards these products with regard not only to price and availability but group attitudes as well.

**Presentation Type and Session:** Poster V

### **Friendship Qualities, Academic Interest, and Academic Performance In College**

**Geraldine Erokwu**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

When it comes to factors that influence academic performance there is more research on secondary students than college students. The purpose of this project is to study the relationships among friendship qualities, academic interest, and academic performance. For the purpose of this study academic interest is defined as what motivates students internally to engage in schoolwork and succeed. Using the Friendship Quality Scale and a modification of Marsh et al.'s (2005) measure to assess academic interest, data will be gathered from Buffalo State College students. I hypothesize that there will be an interaction, such that the influence of academic influence will vary depending on friendship qualities. With the results of this study, I hope to contribute to the field and help colleges serve students better.

**Presentation Type and Session:** Poster IV



## Gender and Characteristic Overlap Among Cluster B Personality Disorders

**Morgan Morningstar**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

Since their inclusion in the Diagnostic and Statistical Manual of Mental Disorders-III (DSM-III; American Psychiatric Association [APA], 1980), personality disorder diagnosis has remained a controversial subject among researchers and clinicians, with considerable overlap among symptoms and ongoing questions about gender differences. This study investigates four hypotheses: 1) that personality measures based on DSM-IV-TR diagnostic criteria will show extensive overlap among characteristics; 2) that histrionic and narcissistic characteristics will map onto the Five-Factor Model in a similar way with high extraversion and neuroticism, and low agreeableness; 3) that women will show higher levels of histrionic and borderline personality traits and men will show higher levels of narcissistic and antisocial traits; 4) that women will have higher levels of vulnerability when exhibiting narcissistic traits and men will show higher levels of grandiosity. The 429 adult participants completed measures of the four personality disorders, the Big Five Personality Factors, and psychological vulnerability. Traditionally, clinicians view histrionic and borderline as primarily female disorders and narcissistic and antisocial as primarily male disorders. Preliminary analysis shows gender differences supporting this idea in three of the four disorders. Correlational results show considerable overlap among the four personality disorder measures. This overlap indicates the possibility that Cluster B does not contain four distinct disorders and that the construct of Cluster B may need to be revised. To investigate this, we will conduct factor analyses and cluster analyses to examine the relationship between gender and personality disorder. My poster will summarize the findings of this study.

**Presentation Type and Session:** Poster V

## Going the Distance: Comprehending Pronouns As Distracting Entities Increase

**Bryan Wight**, PSY 499: Independent Study

Faculty Mentor: Professor Stephani Foraker, Psychology

Going the Distance: Comprehending Pronouns as Distracting Entities Increase Pronouns create an indirect allusion to the entity to which they refer – the referent. Direct-access, which states we process cues at the pronoun virtually automatically (McKoon and Ratcliff, 1980; Foraker and McElree, 2007), and serial search, which states we scan our mental representations one by one until we find the referent (McElree and Doshier, 1993; O'Brien, 1987; Sternberg, 1966) are two competing explanations of how unconscious processes facilitate pronoun comprehension. Past research has shown direct access to be the dominant method for noun-verb linking (McElree, Foraker, and Dyer, 2003). The present study manipulated the number of distractor entities (distance) between the pronoun and its referent noun. Here are examples: SHORT – I heard that

John ate some bad seafood. He fainted suddenly. [One distractor entity]. MEDIUM – I heard that John ate some bad seafood before Mary arrived at the party. He fainted suddenly. [Three distractor entities]. LONG – I heard that John ate some bad seafood before Mary arrived at the party with friends from the sorority. He fainted suddenly. [Five distractor entities]. Participants read sentences and answered comprehension questions while their eye saccades were recorded via an infrared eye-tracking camera. We predict using direct-access there will be no difference in the reading times spent on each pronoun, regardless of the number of distractors, and any regressions will occur to the target area – surrounding the referent noun. If participants follow a serial-search mechanism, reading time should progressively increase as distracting entities do and regressions should fixate on incorrect nouns. Preliminary results will be presented.

**Presentation Type and Session:** Oral – Social Sciences

## Hand Gestures Used In the General Assembly Meetings At the Occupy Protests

**Lauren Stanley, Nicole Meyer, and Jay Kaplewicz**,

PSY 330: Psychological Power of Language

Faculty Mentor: Professor Stephani Foraker, Psychology

The research question for our project was “How do the hand gestures used at the Occupy protests help aid in the flow of communication during the general assembly meetings?” The purpose of the observational research was to find how the protesters overcome the difficulties that arise when trying to communicate effectively and fairly amongst a large group. The data were collected from the general assembly meetings held for Occupy Buffalo, and also instructional videos found online to observe how the system of hand gestures were used. These gestures substitute ideas such as “agree”, “disagree”, as well as others. The research found suggests that the hand gestures used were a system of emblems, symbolic representations for particular concepts, that help keep order and ensure every voice is heard.

**Presentation Type and Session:** Poster III

## The Impact of Labor Strikes Upon Labor Unions, Workers' Rights, and Subsequent Labor Legislation Enactment

**Catherine McCulle**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Alex Blair, History and Professor Andrea Guiati, Director, All College Honors Program

The purpose of my research is to examine the impact labor strikes in the early twentieth century had upon the formation of labor unions, workers' rights, and subsequent labor-related legislation. I plan on constructing a poster containing strong images of striking workers and the violence they endured on the picket lines to help convey their struggles for better working conditions, pay, and a shorter work day/week. My analysis will focus upon particularly



violent strikes and their outcomes, specifically the Ludlow Strike of 1914 (which is also referred to as the Ludlow Massacre) and the Anthracite Strike of 1902. These strikes helped to enact labor legislation such as the Clayton Anti-Trust Act. This particular period exemplifies a darker point in American history, where liberty and prosperity were not attainable by all. We owe it to these workers (some of whom lost their lives) to remember the sacrifices they've made to ensure we have the workplace freedoms and opportunities that are abundant in America today.

**Presentation Type and Session:** Poster I

## **Indigenous Feminism**

**Amanda Oldham**, ANT 499: Advanced Indigenous Studies  
Faculty Mentor: Professor Lisa Anselmi, Anthropology

Native women, along with other women of color, have often experienced racism at the hands of the mainstream feminist movement. Feminism often fails to account for the unique experiences and problems faced by Native women. Due to this, feminism and Native identity have been in conflict with each other, with many indigenous women feeling as if they either can be feminist or native--not both. However, in recent years, there has been increased scholarship on Native feminist thought and indigenous feminism has become a theoretical and social movement. This research will explore the indigenous feminist theory regarding issues such as reproductive healthcare and domestic violence, as well as the connections between sexism, race, decolonization, and sovereignty.

**Presentation Type and Session:** Poster I

## **Jewish Immigration 1933-1948: A Global Colonial Conflict**

**Jani Cash**, History  
Faculty Mentor: Professor York Norman, History

My paper will focus on the movement of Jewish people from 1933-1948. While most immigration is examined against a backdrop of Zionism, antisemitism, and the Holocaust, my paper will focus on the impact that Colonialism had on the movement of people in this period, and the effects that it had on modern politics. The movement of Jewish people forced or voluntary was primarily a result of a struggle to regain or protect a Colonial identity. Allied powers intentionally blocked immigration and emigration of Jewish people in order to maintain a peaceful relationship with nationalist in their country; German powers oversaw the movement of nearly seven million Jews in order to create their racially pure "Third Reich". Subsequently actions carried out in this period have direct correlation to the present Arab-Israeli conflict, as Palestine was a British protectorate. This will examine the ways colonialism conflicted with the movement or lack thereof, of Jewish people from 1933-1948.

**Presentation Type and Session:** Poster I

## **Korean Mountains: A Force of Unification**

**Kyrie Vermette**, HON 400: All College Honors Colloquium and GEG 499: Independent Study

Faculty Mentors: Professor Veryan Vermette, Geography and Planning, Professor Kelly Frothingham, Geography and Planning, and Professor Andrea Guiati, Director, All College Honors Program

**Korean Mountains: a Force of Unification** When reading a description of the geography of Korea many sources will inform the reader that the mountain ranges prove an almost unsurpassable barrier between the east and west side of the peninsula and that it was only through the implementation of modern infrastructure that communication and travel could unite the two sides. Although traditionally viewed as landform barriers, the mountains of Korea, of which seventy percent of the peninsula consists, perform an opposite function for, instead of causing separation, they bring about unification. By unification I mean a unity on a much deeper and more extensive level than physicality and ease of travel, rather a unity that permeates every aspect of life. In this paper I will discuss several different categories of unification brought about by mountains, including as a bridge between heaven and earth, a road to the inner man, a place to remember family ties, an activity to enjoy with friends, and a channel for the geomantic energy that unites the Korean peninsula and her people. For Koreans, who are surrounded by mountains from birth to death, the mountain is not a pile of rock jutting up from the horizon, it is the horizon, it is the nation, and it is the unifying spirit of the Korean people.

**Presentation Type and Session:** Poster II

## **Listen To the Hand: Gestures Aid the Comprehension of Ambiguous Pronouns**

**Megan Delo**, PSY 499: Independent Study  
Faculty Mentor: Professor Stephani Foraker, Psychology

Past research shows that the hand gestures people make while speaking are tightly coordinated with what they are saying (McNeill, 1992). In our study, we used gestures to indicate who an ambiguous pronoun was referring to, predicting that comprehenders use the information in gestures to guide their interpretation. Items were composed of a short story that contained two characters of the same gender. The last sentence contained an ambiguous pronoun. Four videotaped gesture conditions were developed. In the first part of the story there was always a gesture that accompanied person 1 and a different gesture that accompanied person 2. For the critical last sentence the target gesture was (1) a repeat of the Person 1 gesture, (2) a repeat of the Person 2 gesture, (3) an Ambiguous 2-handed symmetrical gesture, or (4) no gesture. Properties of the speech across the four conditions were controlled so the prosodic characteristics of the speech alone were similar, with only the co-pronoun gesture varying. Participants began with two practice videos. Participants could watch the video as many times as they wanted and then answered a question such as "Who thought the

weather was great while on vacation?" The question asked about the characters, with answer choices ranging from (1) definitely [Person 1's name], (4) either one, to (7) definitely [Person 2's name]. Consistent with our prediction, we found that comprehenders use gestures to help guide pronoun comprehension, where a consistent Person 1 gesture biased interpretations to that character and likewise for Person 2 gestures.

**Presentation Type and Session:** Oral – Social Sciences

### **McCarthyism: A Look At the History and How It Relates To America Today**

**Kevin Murphy and Brianna Murphy**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Albert Michaels, History and Professor Andrea Guiati, Director, All College Honors Program

From the 1940's to late 1950's, there was the second Red Scare in American history. Led by Senator Joseph McCarthy, and through intense investigations and questioning, thousands of citizens were accused of being Communists or Communist sympathizers. Many of the people in question were innocent, but the mere association to Communism at this time led to the loss of jobs, or even imprisonment in some cases. Since 9/11, the government has instituted policies that limit freedom in order to investigate terrorism more thoroughly. There are similarities between the era of McCarthyism and the present day Patriot Act. Through looking at articles written by respected scholars and reading the works of acclaimed authors, we intend to look into each subject area with a compare and contrast mentality. By critiquing and analyzing the different viewpoints of various historians, this will allow us to come to our own conclusion regarding the subject matter. Through our completed research, we will be able to show whether or not the government is too often using excessive power on innocent people for the protection of others and how the taking away of freedoms reflects upon the rights that were given to all U.S citizens in the Constitution.

**Presentation Type and Session:** Poster I

### **Mind Or Body: Willingness To Undergo Predictive Medical and Psychological Testing**

**Mark Zdrojewski**, Psychology

Faculty Mentor: Professor Howard Reid, Psychology

There is little research into the psychological profile of individuals that choose to undergo predictive genetic testing, or which category of predictive testing they would be most receptive to exploring: genetic predisposition for psychological or medical conditions. The current research was designed to address these issues. Additionally, we examined whether the medical and psychological history of the individual and his/her family would also influence their willingness to undergo testing. The study included 143 college students recruited from summer session

classes. A questionnaire was used to measure personality traits, health history, willingness to undergo predictive genetic testing, and demographical data. The multiple regression analysis was performed using 10 predictors for the two criterion variables: willingness to undergo psychological (WP) and willingness to undergo medical (WM) predictive testing. Of the 10 predictors in the model, two had significant regression weights ( $p < .05$ ), family medical history and conscientiousness after controlling for the other variables in the model. Interestingly, family medical history was negatively correlated both WP and WM. Thus, when a participant had a higher number of medical conditions in their family health history, they were less willing to undergo predictive genetic testing. Also, conscientiousness was a predictor of whether a person was willing to have a psychological test, but not medical. Interpretations of these significant results will be discussed further in a discussion of the research.

**Presentation Type and Session:** Poster I

### **The Motivations For Success of African American Male Students Enrolled At Buffalo State College**

**Ahmad Islam**, Sociology

Faculty Mentor: Professor Amitra Wall, Sociology

The purpose of this study is to explore the motivations for success of African American male students enrolled at Buffalo State College. According to enrollment data for Buffalo State College, 618 or 6.3 percent out of the 10,002 students enrolled during fall 2011 semester are African American males. Due to the aforementioned statistic this researcher will explore what it is like to be a numerical minority at the largest comprehensive college located in an urban setting. Conflict perspective and critical race theory will be the framework of this study. Face to face interviews will be conducted during the spring of 2012. Participants will define success, identify long and short-term goals, and share what motivates them to succeed. The overall research questions for this study include the following: How do African American males define success? What motivates African American male students to succeed?

**Presentation Type and Session:** Poster III

### **Participatory Action Research In Peru's Ancash Province**

**Edward Lazzaro**, ANT 499: Independent Study in Andean Medical Anthropology

Faculty Mentor: Professor Lisa Anselmi, Anthropology

During my trip this past January to the city of Carhuaz in the Ancash province of Peru, I was intrigued by the inhabitants, known as the Quechua, and their relationship with the land. My research questions revolve around the Quechua and similar cultures in the region and their religious practices, especially those that include the use animals and animal parts, and I am exploring this through the

lens of medical anthropology and social cultural anthropological theory. I will also be researching a form of Andean healing using the Cuy, or guinea pig, performed by the local curanderos as well as other healing practices found throughout the region. The importance of domesticated guinea pigs dates to their original domestication in 5000 BCE in the Altiplano region of Peru and Bolivia. From this area, domesticated guinea pigs spread to the coast and northward to Ecuador by 500 BCE.

**Presentation Type and Session:** Oral – Social Sciences

### **Persistence of Enhanced Anxiety-Like Behaviors After Predator-scent Exposure In Rats**

**Moje Omoruan**, Psychology and **Daniel Moscov**, Psychology  
Faculty Mentor: Professor Jean DiPirro, Psychology

Posttraumatic stress disorder (PTSD), as defined by the American Psychiatric Association, is characterized by three hallmark symptoms that persist for a duration of greater than one month. These symptoms include re-experiencing of the traumatic event, increased anxiety/arousal, and avoidant behavior. The present study was designed to add to our working rat model of PTSD (i.e., predator-scent exposure) to better encompass the persistence of enhanced anxiety-like symptoms that occur after exposure to traumatic stimuli in humans. We hypothesized that exposure to a combination of two aversive stimuli (predator scent and acoustic startle) would produce a higher level of persistent enhanced “anxiety” than would exposure to either stimulus alone, or to neither stimulus. The subjects were 48 adult male Long-Evans (hooded) rats. Anxiety-like behavior in rats was assessed using an elevated plus maze 24 hours after exposure to aversive stimuli. The analysis of the data is ongoing. The results will be used to improve our current rat model and to help to validate its usefulness in the study of PTSD.

**Presentation Type and Session:** Poster V

### **Personality and Color Preference**

**Bryanna Trotman**, Psychology and **Lisa Bores**, Psychology  
Faculty Mentor: Professor Howard Reid, Psychology

Our study is using the “Big Five” personality inventory and a 36-slide power point presentation to examine whether or not different personality traits correlate with how a person relates to colors. Previous research has examined colors in relation to a person’s emotions. However, there has been no research reported which examined colors in relation to the Big Five personality traits. We are also taking into consideration the specific characteristics of hue, value and intensity. Specifically, we are having the subjects fill out a personality questionnaire, followed by watching a 36-slide power point presentation. Each slide of the presentation will consist of a specific color (hue), value and intensity combination. After examining each slide for approximately 10 seconds, the subjects will use a scale of one to five to rate how much that slide represents

themselves. Our prediction is that the subject’s personality will be correlated with their hue, value and intensity preference.

**Presentation Type and Session:** Poster II

### **Princess Priming May Have an Adverse Effect On How Women Self-Identify With Math**

**Katherine Mosier**, Psychology

Faculty Mentor: Professor Jennifer Hunt, Psychology

Princesses’ characteristics in Disney® and other stories reinforce communal or traditional gender roles by focusing mostly on beauty and helplessness, rather than intelligence and autonomy. Due to its pervasiveness, “princess culture” may be a contributing factor to the low number of women found in STEM-fields (science, technology, engineering, and mathematical fields). We are investigating whether priming our participants with princess traits will negatively affect their math self-concept, or cast doubt about their math interests and abilities on an implicit (non-conscious) level. To test our predictions, we are conducting an experiment in which college students are primed with princesses, superheroes, or by thinking about themselves. They then complete the Cultural Icon Survey (CIS) and an Implicit Association Test (IAT). The CIS assesses the degree to which participants identify with princesses. The IAT is a computerized word-association task that measures participants’ math self-concept. We expect to find that participants in the princess priming condition will have the lowest identification with math, especially if the participant has a high preexisting identification with princesses.

**Presentation Type and Session:** Poster II

### **Psychology of Food, Impulse, Political Preference and Personality**

**Christina D’Orazio**, PSY 499: Food and Politics

Faculty Mentor: Professor Howard Reid, Psychology

It has been speculated that personality characteristics play an important role in a person’s food cravings and how they make choices regarding diet and exercise. This study seeks to find how food choices are determined by impulsivity and other personality characteristics, such as depression, anxiety, self-control, and moderation. This study also added another variable, political party preference, to find out if there is a relationship between an individual’s impulsivity, food choices, and political party preference. Three hundred (300) students from Buffalo State College age 18 and over will fill out a questionnaire containing 105 questions. The questionnaire will ask the participants to provide information about their food choices, impulsivity, and political party preference as well as their level of depression and anxiety, self-control, and moderation.

**Presentation Type and Session:** Poster II

## **Racism Against Indigenous Students At the Universidad San Francisco De Quito**

**Erica Hernandez**, Anthropology

Faculty Mentor: Professor Lisa Anselmi, Anthropology

Race relations in Latin America vary widely in severity according to the geographical area that is being studied. Nationally, Ecuador is considered a mestizo nation. However, it is also an ethnically diverse country with minority groups of Indigenous and Afro-Ecuadorian people. The Indigenous population in Ecuador continues to overcome the racial inequalities that have afflicted the country since colonial times. Previous studies have explored racism in primary and secondary schools in Ecuador; however, there is a lack of literature regarding Indigenous students at the university level. This pilot project examined how indigenous students at the Universidad San Francisco de Quito, a private institution, perceive racism and discrimination and its connection to traditional Indigenous clothing. It is hypothesized that those who wear traditional Indigenous clothing are more likely to experience racism and discriminatory actions against them than those who wear regular or mestizo clothing.

**Presentation Type and Session:** Poster III

## **Religious Coping With Academic Stressors and Student Self-Efficacy**

**Pamela Mordick**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

This study examines the relationship between external and internal religiosity of college students and students' ability to cope and adjust to school and their level of academic self-efficacy. Prior research indicates that greater stress in life may negatively affect physical and mental health, and repeated stress may lead to personal failure. However, some studies show that religious and spiritual coping may reduce stress and depression. Further, effective problem solving has been shown to be a significant protective factor against the negative effects of stressors. In addition, those who have less self-doubt in their abilities have a greater self-efficacy and students who start school with a strong sense of academic self-efficacy excel toward their goals more so than their classmates. The present study will combine these concepts and examine the relationship between intrinsic and extrinsic religious coping skills and college students' academic achievement and adjustment. Data are being collected and results will be presented at the Student Research and Creativity Celebration.

**Presentation Type and Session:** Poster V

## **Safe Space: A Creative Approach To Bullying Intervention In a Virtual Environment**

**Ted Mallwitz**, Creative Studies

Faculty Mentor: Professor Cyndi Burnett, Creative Studies

Bullying is an ever present and growing concern for educators, parents, and students. The Internet presents new mediums for bullying through social networking and online communication. If the Internet has become part of the problem of bullying, then how might it also present new solutions? This research is aimed at presenting new means for online bullying intervention and prevention through the use of the virtual collaboration software Qube (formerly Openqwaq). Through the creation of virtual communities for schools students can interact with educators, counselors, and peers to address bullying issues. The use of this online medium may be able to create a virtual safe space where students feel comfortable coming forward about bullying as well as present a forum where educators can communicate with students in new ways. This presentation will include a brief introduction and video presentation of the Safe Space to be created using the Qube software.

**Presentation Type and Session:** Oral – Social Sciences

## **The Sex Offender Registry: Policy, Punishment, and Effectiveness**

**Ciera Sundquist**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Kathleen Contrino, Criminal Justice and Professor Andrea Guiati, Director, All College Honors Program

We can access it online, find it in newspapers, get email alerts, and even download apps for our phones, but is the sex offender registry really effective in preventing offenders from recidivating? Sex offender registries were created in order to protect society, especially children, against sex offenders but the effectiveness of these laws has come into question. This is, in part, due to the fact that sex offender registries operate on the theory of rational choice, while sexual offenders may be motivated by other criminological theories. In order for a punishment to be effective it must be grounded in the same criminological theory as the offense connected to that punishment. However, root causes of Pedophilia and the deterrent effects of a sex offender registry may not be related theoretically thus making registries ineffective. This poster will primarily examine criminological theories and policies behind the sex offender registries in order to come to a more complete understanding about them. In addition this poster will present theories and motivations behind pedophilia, as well as data related to recidivism rates, in order to discuss the effectiveness of sex offender registry policies.

**Presentation Type and Session:** Poster I



## **Sexual Behavior and Religiosity Among Undergraduate College Students**

**Edward McCarthy IV**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

This present study examined the relation between religious beliefs, behaviors and attitudes and sexual behaviors and attitudes in 129 undergraduate college students through a self-report questionnaire. Both intrinsic and extrinsic religiousness were related to more conservative sexual activities and attitudes. Greater intrinsic religiosity and greater religious commitment were related to a decrease in sex-related guilt whereas greater extrinsic religiosity was related to greater religious activity and less sexual-related guilt. As a greater agreement with religious standards for sexual activity was present, more sex-related guilt was experienced. The more conservative or fundamental these viewpoints were, fewer individuals were shown to be engaging in sexual intercourse. Future research should look to examine variables other than religion in relation to sexual behavior and attitudes.

**Presentation Type and Session:** Poster IV

## **Sexual Education and Risky Sexual Behavior In College Students**

**Kathryn Larson**, Psychology and **Caitlyn Gorham**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

Research has shown that too much or too little sexual education can negatively influence the promiscuity of adolescents. Arguments about sexual education have included how much is beneficial, if sexual education is effective in encouraging safer sex for teenagers and young adults, and at what age sex education should begin (Sherr and Dyer, 2010). Questions also persist about whether sexual education should cover only abstinence or incorporate birth control methods. The controversy surrounding these methods of sexual education is centered on the belief that teaching students how to use birth-control methods will only encourage adolescents to be sexually active. However, although considerable research has examined the efficacy of sexual education in high school students, fewer studies have examined the impact of high school sexual education on college student behavior. The present study analyzed the relations between sexual education, gender and the sexual behavior of college students. Results indicated that perceived quality, amount, and type of sex education were unrelated to the promiscuity and sexual behavior students engage in. Gender was related to sexual anxiety, personal risk taking, and perceptions of risk and benefits of sexual behaviors.

**Presentation Type and Session:** Poster I

## **The Short-Term Effects of Caffeine Consumption On Reaction Time and Physiological Behaviors**

**Sopheeah DeTine**, Psychology, **Laura Thomas**, Psychology, and Michelle Switzer, Psychology

Faculty Mentor: Professor Pamela Schuetze, Psychology

Caffeine, a stimulant found in many foods and beverages, has been found to have both physiological and behavioral effects in humans (Lyvers, Brooks and Matica, 2004). Numerous studies have found behavioral benefits associated with caffeine consumption (Yang, Palmer and de Wit, 2010). For example, caffeine consumption has been linked to increased alertness and attentiveness (e.g., Brunye, Mahoney, Lieber, Harris, Giles and Taylor, 2010). However, some studies find these effects only at higher doses of caffeine (e.g., 400 mg), while others find effects even with lower doses of caffeine. Caffeine has also been shown to have a large effect on the autonomic nervous system (ANS; Lyvers, Brooks and Matica, 2004). Specifically, caffeine has been found to increase skin conductance levels (SCL), resting electroencephalogram (EEG), heart rate, respiration rate and septolic and diastolic blood pressure shortly after consumption (Barry, Clarke, Johnstone and Rushby, 2008; Lyvers, Brooks and Matica, 2004). Many of these studies, however, examined ANS effects after consuming moderate levels of caffeine (e.g., 300 mg). It is unclear if similar effects would be found with lower doses of caffeine consumption. The purpose of this study was to examine both behavioral and autonomic nervous system (ANS) measures in college students after the consumption of low doses of caffeine. Specifically, we examined reaction time to the CPT (Continuous Performance Test), observed jitteriness and self-reported levels of frustration after completing a timed task. We hypothesized that those who were administered caffeine will show an increase in jitteriness and frustration, whereas reaction time will show no change.

**Presentation Type and Session:** Poster V

## **Sleep and GPA: Does Sleep Really Matter?**

**Kaitlyn Wardour**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Jill Norvilitis, Psychology and Professor Andrea Guiati, Director, All College Honors Program

Sleep is a necessity in life and enhances learning, but can too little sleep drastically affect your academic success? The purpose of this literature review is to examine how the amount of time spent on sleeping effects a college student's academics. It will look into the correlation between hours spent sleeping and the GPA of college students. The study will examine the effects that ADHD medications such as Adderall have on the brain and if there are any correlations with sleep and with college students' grades. Many college students use this attention-enhancing drug to pull all nighters and cram for exams. Sleep is a contributing factor in academic success but is it the most important factor? Some college students merely look at sleep

as a luxury that should not be used if there is a party or some last minute studying to be done. This study will unearth how important sleep really is and how it may impact college students' academic success.

**Presentation Type and Session:** Poster VI

### **Sooner Rather Than Later: The Role of Primacy and Recency In the Driver Attribution Process**

**Courtney Bieniek and Brittany Leo**, PSY 499: Independent Study

Faculty Mentor: Professor Dwight Hennessy, Psychology

The traffic environment is one that is fast-paced and stress provoking and oftentimes does not allow for a thorough evaluation of events or stimuli that happen around us. The judgments an individual makes about another driver's abilities is primarily based on a mere snapshot in time which may or may not be a true representation of their typical driving behaviors. The way in which an individual makes judgments is filtered through their own personality and experiences. Recent research has begun to focus on the attribution process in driving because of the potential problems associated with errors in the judgment process. There is some evidence to show that primacy and recency effects play a role in memory and attribution formation. Primacy suggests that we remember information better when presented earlier while recency suggests that we remember more recent information better. The participants in the current study were presented a video of a near-collision between two vehicles from the perspective of a trailing motorist (recorded in a traffic simulator). The primacy group saw this early in the video while the recency group saw it near the end of the video. Subsequently, they were asked to make attributions about the driver in the incident (e.g. riskiness, ability, skill). The preliminary data suggests that in most cases primacy was more prevalent than recency with respect to negative judgments. Therefore, if poor driving ability is seen earlier on, the more likely the driver will be judged as being less skilled and more reckless.

**Presentation Type and Session:** Poster II

### **Stature Estimation Comparison**

**Jennifer Mclaurin**, ANT 495: Skeletal Stature

Faculty Mentor: Professor Julie Wieczkowski, Anthropology

Stature estimation of human remains is an important part of forming a biological profile for forensic cases (Cordeiro et al. 2009). Due to the precarious nature of long bone preservation under forensic circumstances, alternative methods of stature estimation have been tested, which utilize skeletal elements that are preserved in higher frequency (Meadows and Jantz 1992). The objective of this project was to test a method of stature estimation that utilizes skeletal elements that are preserved in high frequency against two known conventional methods that rely on bones that are often damaged

under forensic circumstances. This study was conducted on 10 natural human skeletons in the Anthropology Department. The two conventional methods I tested were the Fully method and long bone method. The alternative method was the metatarsal method. My ultimate goal was to determine if the metatarsal method is an applicable alternative to standard methods of stature estimation when forming a biological profile for forensic purposes. Based on a comparison of stature estimations from the three methods, the metatarsal method does not provide stature estimations that are precise or accurate enough to aid in forming a biological profile.

**Presentation Type and Session:** Poster III

### **A Steel Stronghold Turned Stagnant: An Examination of Local Leadership's Role In the Decline of Bethlehem Steel In Lackawanna, NY**

**Gretchen Garrity**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Susan Randaccio, History and Professor Andrea Guiati, Director, All College Honors Program

On Monday, December 27, 1982, the Buffalo News reported that Bethlehem Steel was going to shut down almost all of its steelmaking operations in Lackawanna permanently by the end of the summer. The loss hit Buffalo hard; thirty-nine hundred workers would lose their job and those thirty-four hundred already on lay-off would not be recalled. Mayor Griffin was "in a state of shock" over the closing and Governor Mario Cuomo developed a task force to deal with the devastating situation. And yet, just two decades earlier in the mid-1960s Bethlehem Steel employed 20,000 locals and was producing six million tons annually making it the third largest steel company in the country; even as late as 1975 the company built a \$138 million state-of-the-art bar mill in Lackawanna. It is difficult for those of recent generations to look at the Buffalo that exists today and imagine the greatness it once embodied. The purpose of this project is to research the roles of the community leadership and labor unions in the closing of Bethlehem Steel. The project will also illustrate the effects the closing of Bethlehem Steel had on Buffalo's economy.

**Presentation Type and Session:** Poster II

### **Student Academic Success**

**Jacqueline Melo**, Psychology

Faculty Mentor: Professor Robert Delprino, Psychology

This study examines the areas of a student's life that potentially contribute to their education. Specifically the research seeks to identify students' perceptions of how their families, workplaces and the college provide support to help them achieve academic success. Comparisons will be made between working and non-working students' perceptions and how differences in perceptions may influence students' attachment to the college. This study will build upon earlier student research conducted at Buffalo State College,

which found that students perceived family and the workplace as more supportive towards their academic success than the college. The results of the earlier study were based mainly on qualitative data obtained from focus groups. The current research will be a quantitative study that through the use of survey questionnaires will attempt to confirm the earlier findings. A review of the literature was conducted to develop the questionnaire used and includes measures of family, workplace and college support and stress. In addition, participants identify the degree of attachment they have to the school in terms of satisfaction with the college, their department and overall educational experience. Results are discussed in terms of how such information can be used to enhance students' perceptions and educational experiences.

**Presentation Type and Session:** Poster II

### **To Capture Your Mind and Tell Their Story: Captivity Narratives**

**Adam Bardol**, ANT 499: Advance Indigenous Studies  
Faculty Mentor: Professor Lisa Anselmi, Anthropology

In nearly all Native American histories there have been captivity stories of white women. We often hear of "brutes capturing, torturing, raping, and killing" these women and the crusades which were undertaken to rescue said women. This is often half the story. The Native American accounts often differ. There are several stories where the captive is returned to white society and the stories are true in part, but life was not as horrible as it seems (or was recounted). I intend to look into the captivities of Olive Oatman, Cynthia Ann Parker, Mary Jemison, and Pocahontas. I will look into their individual captivities and compare their stories. Olive Oatman and Cynthia Ann Parker were captured in Western North America, and Mary Jemison and Pocahontas in Eastern North America. This will give me a good geographical division point. Also in contrast is the fact that Oatman, Parker and Jemison were European-Americans while Pocahontas was an Indigenous woman. I will be using captivity narratives read in my class, ANT 499 Advanced Indigenous Studies, and several others to facilitate my research.

**Presentation Type and Session:** Poster I

### **Until Irreconcilable Differences Do Us Part: How Divorce Affects Adult Offspring**

**Kira Bruce**, Psychology  
Faculty Mentor: Professor Jill Norvilitis, Psychology

Divorce in our culture is a common practice. Although most children are resilient to the effects of divorce, there are still many who suffer psychological damage that is often left unresolved (Laumann-Billings and Emery, 2000). This study aims to explore the long-term detrimental effects of divorce that are often overlooked as children grow older, specifically concerning college-aged children and their intimate relationships. Hypotheses are as follows: H1: When given descriptions of potential love interests, college students

will perceive the option whose parents are not divorced as a more suitable partner than an option whose parents are divorced to examine whether divorce is stigmatizing to the offspring. H2: Within a divorce, children will be more affected by the absence of a mother than the absence of a father. H3: Although college students with divorced parents may not have problems pursuing relationships in general, they will be more hesitant to pursue marriage specifically and are likely to have less faith in marriage. H4: College students will be more affected by a divorce that occurs during middle childhood compared to a divorce that occurs when a child is older with the capabilities of understanding, or occurs when a child is younger and not able to recall any conflict. H5: College students of divorced parents will be less trusting and intimate in relationships than those whose families stayed intact. Data are currently being collected and results will be presented at the Student Research and Creativity Celebration.

**Presentation Type and Session:** Poster VI

### **What's Your Problem? Students' Experiences With Incivility At School and Work**

**Salome Tsige**, Psychology  
Faculty Mentor: Professor Robert Delprino, Psychology

Recently there has been a good deal of attention given to bullying behaviors in school settings. Unfortunately bullying is not a new phenomenon and continues to persist in schools and also in workplaces. An equally important concern that deserves attention is incivility in educational and employment settings. Often it is a precursor to bullying behavior. Incivility is marked by a lack of regard for others and can be defined as any action that goes against the established norms of an environment. This includes any action that interferes with the learning or working experience. This current study will examine the types of incivilities that students face in college and at their workplace. It will also examine the affect that the experienced behaviors have on their feelings towards school and their job. This study also distinguishes what specific behaviors students experience and from whom (other students, instructors, college staff). The study of Incivility is important due to the negative effects with which it is associated. Awareness of the forms of incivility that may be occurring and from where such behaviors are coming will allow such issues to be better addressed.

**Presentation Type and Session:** Poster I

### **White Savages: The Portrayal of European Women In Captivity Narratives**

**Annie Connors**, ANT 499: Advanced Indigenous Studies  
Faculty Mentor: Professor Lisa Anselmi, Anthropology

Captivity narratives are a genre of literature devoted to telling the story of people held captive by Native Americans. These stories popularly center on women of European descent and define what

European culture believes to be appropriate behavior for women. Those who were abducted were often treated in ways that differ from the European norm and were often witness to violent deaths of relatives, husbands and children. In a society where men were expected to protect women, the kidnapping of women was viewed as an attack on and affront to the males within that society. Captivity narratives perpetuate stereotypes of both Native Americans as well as settlers and were a part of the on-going conflict between these groups during westward expansion. Through studying the separate captivity narratives of Olive Oatman and Cynthia Ann Parker it is possible to address the key issues of gender and culture during that time period.

**Presentation Type and Session:** Poster I

### **Women of Color and the Journey To Self-Sexual Acceptance**

**Alisa Hawkes**, WGS 495: New Age of Sex

Faculty Mentor: Professor Amitra Wall, Sociology

Feminist scholars and sociologists acknowledge that when discussions revolve around sex and sexuality, a double standard exists for women of color. Sexual experiences for women of color are taboo with “Black sex” being under major scrutiny in American culture since slavery. Further it has been scarcely examined let alone displayed in a positive manner in the media. The purpose of this project is to explore the perceptions of “Black sex.” I will examine three different generations of women in my family: my grandmother, the Baby Boomer; my mother, the Generation X; and my cousin, Generation X/Millennial. Their sexual experiences and their views on the evolution of sexual acceptance in our culture will be explored in this ethnography. I will examine whether these three women internalized the sexual norms, assigned to women of color, in North American society. I will also examine their sexual practices and comfort level to see if they embrace their sexuality.

**Presentation Type and Session:** Poster II

### **Written In Bone: An Analysis of Skeletal Anomalies**

**Annie Connors**, ANT 495: Skeletal Anomalies

Faculty Mentor: Professor Julie Wieczkowski, Anthropology

Forensic Anthropology is the collection of evidence from human skeletal remains for presentation in a legal context. There are a variety of skeletal anomalies that appear similar to trauma. To better recognize skeletal trauma, it is necessary to recognize skeletal anomalies. Thirteen natural human skeletons and four individual skulls in the Department of Anthropology at Buffalo State College were visually assessed for non-fusion anomalies, accessory ossicles and accessory foramina. All anomalies were described and photographed. Nearly every skull presented at least one accessory ossicle. Another common anomaly of the skull was a supra-orbital foramen. A rarity among skull anomalies was one case of metopism

and two cases of Huschke's foramen. Post-cranially, a common anomaly was a septal aperture in the humerus. Among the more rare post-cranial anomalies were one sternal foramen and an instance of a completely unfused sacrum (spina bifida). One skeleton also displayed an interesting foramen inferior to the frontal suture and another displayed a partially divided transverse foramen in a cervical vertebrae. These data can be compiled with other research on the skeletal collections to form a complete file for each individual skeleton.

**Presentation Type and Session:** Poster II





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