

# Program & Abstracts

## **Editor**

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Director, Office of Undergraduate Research

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Office of Undergraduate Research

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The Research Foundation of SUNY College at Buffalo

Cover Design and Layout: Carol Alex

## **The following individuals and offices are acknowledged for their many contributions:**

Sean Fox, Technical Director, SERC, Carleton College  
Maryruth Glogowski, Director, Butler Library, and the library staff  
Jim Shea, Technology Department  
Carol Beckley, Theater Department  
Suza Labiak, Office of Undergraduate Research  
Kaylene Waite, Computer Graphics Specialist  
Bruce Fox, Photographer  
Tim Ngo, Copy Center

Tom Coates, Director, Events Management, and staff, especially Mary Beth Wojtaszek  
Ted Turkle, Director, Research Foundation, and staff  
The Department and Program Coordinators  
Members of the Undergraduate Research Advisory Committee  
Beth Graff-Baker, Center for Development of Human Services  
Special thanks to Carol Alex, Center for Development of Human Services

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Andrea Guiati  
Amitra Wall  
Lin Xia Jiang

David Kukulka  
Michaelene Meger  
Jill Norvilitis  
Gary Solar  
Sandra Washington  
Robert Wood

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

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Louis Colca, Social Work  
Carol DeNysschen, Dietetics and Nutrition  
John Draeger, Philosophy and Humanities  
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David Henry, Elementary Education and Reading  
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David Kukulka, Technology  
Joelle Leclaire, Economics  
Bill Lin, Computer Information Systems  
Dan MacIsaac, Physics  
James Mayrose, Technology

Dianne McCarthy, Elementary Education and Reading  
S. Diane McFarland, Business  
Amy McMillan, Biology  
Michaelene Meger, Exceptional Education  
Andrew Nicholls, History and Social Studies Education  
Michael Niman, Communication  
Jill Norvilitis, Psychology  
Kathleen O'Brien, Hospitality and Tourism  
William Raffel, Communication  
Lisa Rafferty, Exceptional Education  
Peter Ramos, English  
Scott Roberts, Health and Wellness  
Stephen Saracino, Design  
Jim Shea, Technology  
Greg Smith, Art Conservation  
Gary Solar, Earth Sciences  
Elizabeth Szockyj, Criminal Justice  
Amitra Wall, Sociology  
Sandra Washington, McNair Scholars Program  
William White, Modern and Classical Languages  
Kevin Williams, Earth Sciences  
Robert Wood, Design  
Mary Wyrick, Art Education

# Table of Contents

<b>Welcome Statements</b>	<b>1</b>
---------------------------	----------

## **Program at-a-Glance**

Friday, May 1	5
Saturday, May 2	5

## **Program**

### **Oral Papers**

Humanities	6
Business and Technology	6
Social/Political Science	6
Sciences	7
Arts, Journalism, Health, and Social Sciences	7
Education and Problem Solving	8

### **Poster Sessions**

Session I	8
Session II	9
Session III	10
Session IV	10
Session V	11
Session VI	12
Session VII	13
Session VIII	13

<b>Recipients of Undergraduate Summer Fellowships in 2008</b>	<b>15</b>
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## **Abstracts**

Arts	21
Business and Technology	30
Education and Problem Solving	42
Health, Wellness and Safety	50
Humanities and Journalism	58
Physical Geography, Science, and Mathematics	62
Social Sciences	76



The opportunity for students to participate in meaningful research and creative experiences alongside faculty is one of the distinguishing features of a liberal arts education at Buffalo State College. Every year the number of students engaged in such activities grows, adding prestige and value to our academic programs. Through this annual celebration, now in its 11<sup>th</sup> year, we take time to appreciate the intellectual and creative vitality of our students, as well as the dedication of the faculty and staff who mentor and inspire them.

Each year, the Student Research and Creativity Celebration showcases an impressive array of intellectual endeavors, and demonstrates how we can create new knowledge and expand our world through innovation. Through undergraduate research, Buffalo State students collaborate with faculty, or work under their supervision, to examine, create and share new knowledge or works in ways that strengthen their understanding of various academic disciplines. These hands on experience are a powerful enrichment to learning on our campus, and as every student participant can confirm, the process is just as important as the outcome for these exciting projects.



Thank you for joining us for this inspiring celebration. We hope that you will find your own intellectual and creative horizons expanded today.

Sincerely,

A handwritten signature in cursive script that reads "Muriel A. Howard". The signature is written in dark ink on a white background.

Muriel A. Howard, Ph.D.  
*President*

A small number of campus activities evolve, with time, from a yearly event to an annual tradition. The Student Research and Creativity Celebration, now in its eleventh year, is an outstanding example of the institutionalization of an initiative greatly valued by the college community.

The celebration originated, under the guidance of Dr. Jill Singer, as part of Buffalo State's emphasis on undergraduate research. The importance of undergraduate research was evident in the early years leading to an action step in the college's 2003-2008 Strategic Plan calling for the college to "expand student creativity and research initiatives". This was accomplished with creation of the Office of Undergraduate Research in 2003, appointment of a director, dedication of resources to support summer fellowships, student travel, and small grants programs, and continuation of the annual Student Research and Creativity Celebration.



The celebration is a time for the campus community to recognize student achievement resulting from a multitude of research, artistic, and creative efforts. We are reminded during the two days of the celebration of the extent to which Buffalo State students participate in inquiry-based learning and creatively articulate their findings to the wider community. Student participants and faculty and staff mentors are to be congratulated for embracing the academy's commitment to "the rigors, joys and fulfillment of intellectual discovery", a core value of Buffalo State. Many from our campus community are involved in the logistics and details of the celebration. Thanks to each individual for their contributions.

Congratulations to all participants as we celebrate this wonderful example of excellence within the Buffalo State community.

Sincerely,

A handwritten signature in cursive script that reads "Dennis Ponton". The signature is written in dark ink on a white background.

Dennis Ponton, Ph.D.  
*Provost and Vice President for Academic Affairs*

Welcome to the 11<sup>th</sup> annual Student Research and Creativity Celebration. This year's program includes over 250 abstracts and represents a wide array of talks, posters, exhibits and performances. This two-day event represents the culmination of many months of planning and could not happen without the support and assistance from individuals and offices across campus. I acknowledge their efforts and enthusiasm as they help make this event run smoothly.

Campuses across the country place a high value on engaging students in quality learning experiences. Here at Buffalo State we make student research and active learning a central theme in our academic strategic plan. Even in the midst of challenging fiscal times, the College remains steadfast in its commitment to support research activities for students in all academic disciplines.

After thirteen years as President of Buffalo State, Dr. Muriel Howard will leave the College to become the President of the American Association of State Colleges and Universities (AASCU). Throughout her presidency, Dr. Howard has been a vocal supporter of undergraduate research, both in front of, and behind the scenes. I am indebted to her for demonstrating such a strong commitment for undergraduate research as well as for her support of me in my position as director of the Office of Undergraduate Research. I congratulate Dr. Howard on being named as the next president of AASCU and wish her the very best in this endeavor.



This weekend we celebrate our students' discoveries as they have explored their discipline in search of answers to open-ended questions and have applied 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 have already shared their work at national and international professional meetings and conferences. But whether the work is in its earliest stages or nearing completion, our students are learning about the value and importance of communicating and sharing the knowledge gained or a new work of art derived from their study. And, every student presenter has benefitted from the commitment of a dedicated mentor (or mentors) who provided the right mix of encouragement, feedback, and guidance throughout each step of the research, scholarly, and creative experience.

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 this event and supporting our student presenters and their faculty mentors.

Enjoy the program!

A handwritten signature in black ink that reads "Jill Singer". The signature is written in a cursive, flowing style.

Jill K. Singer, Ph.D.

*Professor of Earth Sciences*

*Director, Office of Undergraduate Research*

*Recognition for leadership in creative expression, an overarching goal of the School of Arts and Humanities, is exemplified by the research and creative endeavor exhibited by A&H students in the 11<sup>th</sup> Annual Student Research and Creativity Celebration. A&H faculty are national and international leaders in the myriad media of creative expression indigenous to the arts and humanities. Their sustained passion for excellence and commitment to nurturing student scholarship inspire our students to extraordinary accomplishments. We are delighted to showcase the talents and accomplishments of our students in this Buffalo State hallmark event, and I am delighted to congratulate all participants.*

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



*In University College we help students create their distinct path to excellence. Today represents one fulfillment of that hope. The discovery or creation of an original contribution to our conversation as learners is one of the most significant outcomes of any educational experience. The courageous step of determining an answer to an inquiry or bringing an inspiration to fruition means that a student has moved beyond consumer to contributor in the discourse of a discipline. Congratulations to all students participating in the 11<sup>th</sup> Annual Student Research and Creativity Celebration for that significant achievement.*

Scott Johnson, Ph.D., Interim Dean, University College

*It is with great pride that I welcome and congratulate all of the student scholars and their mentors who are participating in the 2009 Student Research and Creativity Celebration. The student researchers represent the best and brightest that our College has to offer. The mentors are examples of dedicated academic professionals who give of themselves to help launch future scholars on the journey of discovery. I know this "Celebration" is a building block for future successes; it is just the start of things!*

Gary W. Jones, Ph.D., Dean, School of the Professions



*Research and creativity inform and foster all we do here at Buffalo State, and the Graduate School is proud to support these efforts. 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. A special thanks is extended to Dr. Jill Singer for her leadership in nurturing the Research and Creativity Celebration into now its eleventh year.*

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



*This celebration offers a valuable opportunity for recognizing and applauding the exceptionalism of our graduate and undergraduate students who have reached beyond their prescribed academic experiences to grow through discovery and scholarship. I commend all of the students, staff, and faculty who have participated in this year's research projects and presentations and thank each of you for your engagement and creative expression of ideas!*

Ronald S. Rochon, Ph.D., Dean and Associate Vice President, School of Education

*Congratulations to the students and their faculty mentors taking part in the 11<sup>th</sup> annual Student Research and Creativity Celebration! I know you will find your participation in this event, and the work leading up to it, to be among the highlights of your academic career and one of your most valuable educational experiences. I am very pleased to welcome students, guests, and faculty to this showcase of the outstanding research and creative work of Buffalo State undergraduate and graduate students.*

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



*This annual event, in its 11<sup>th</sup> year, continues to celebrate the unique scholarly accomplishments and creative talents of our students. The Research Foundation is a proud supporter of this extraordinary tribute that promotes enthusiasm for research, cultivates inquisitiveness and encourages active participation in creative research. Sincere appreciation is extended to the faculty mentors who provide inspiration, encouragement and expert guidance to their students. Congratulations to the undergraduate and graduate students whose outstanding work is the focus of this celebration.*

Ted Turkle, M.A., Director, SUNY Research Foundation at Buffalo State College



## Friday, May 1, 2009

### Upton Hall Gallery

9:00 a.m. – 4:00 p.m.

#### Art Education Student Juried Exhibition

(Saturday hours: 1:00 – 3:00 p.m.)

### E.H. Butler Library

5:00 p.m. – 6:30 p.m.

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

The opening reception is a capstone scholarly activity undertaken by students in HTR 400: Catering Management.

Darrell J. Sentz and Kyle L. Clark, Student Coordinators

Faculty Mentors: Professors Stephen Burgeson and Donald Schmitter, Hospitality and Tourism

5:00 p.m. – 6:00 p.m.

#### Preview of student posters

6:00 p.m. – 6:15 p.m.

BSC Marimba Ensemble: Daniel Darnley, Michael Downie, Peter Evans, Jacob Frasier, Matthew Tate, and Gregory Webster

Faculty Mentor: Professor Bradley Fuster, Music

#### “Exultate Deo” (c.1560)

Giovanni Palestrina (1525-1594)/Arr. Peter Tanner (b.1936)

#### “Norman Solers” (1993)

Cynthia C. Barlow (b.1965)

### Upton Hall, Gallery 234

6:00 p.m. – 8:00 p.m.

#### Senior Show: Body Casting

Teri Drennan, Design and Art Education

Faculty Mentor: Professor Robert Wood, Design

(Saturday hours: 12:00 noon – 4:00 p.m.)

### Rockwell Hall, Auditorium

7:00 p.m. – 8:30 p.m.

#### “Zombie Loves Vampire: A Student Produced Short Film”

Ian Capp as the “Zombie”, Stephanie Dale as the “Vampire”, Gabe Marizio as “Goth Kid” and, Sam Alba as “Punk Kid”

Writer/Director – Jason Klinger, Theater

Faculty Mentor: Professor Carol Beckley, Theater

### Upton Hall, Warren Enters Theater

8:00 p.m. – 9:30 p.m.

#### Spring Dance Concert: “The World Within: a Collaboration of Dance and Fiber”

Buffalo State Dance Theatre

Stage Manager: Christina Golab

Faculty Mentors (Theater): Professors Janet Reed,

Leanne Rinelli, Joy Guarino, Carlos Jones; Ann Emo, and

Shannon Schweitzer, with Erica Fire, Costume Manager

Student fiber designers: Tegan Ford, Barbara Poletowski, Hillary Fayle and Mariko Machubushi

Faculty Mentor (Design): Professor Jozef Bajus

(Additional performances: May 2 at 2 p.m. and 8 p.m.)

## Saturday, May 2, 2009

### E.H. Butler Library

*All events are located in E.H. Butler Library unless otherwise noted.*

8:30 a.m. – 5:00 p.m.

#### Registration

Presenters and faculty mentors pick up your name badge, program, and t-shirt

#### Concurrent Sessions

Locations and times listed after each session

#### Oral Papers

Humanities – Room 210B

8:30 a.m. – 10:30 a.m.

Business and Technology – Room 210

9:00 a.m. – 11:45 a.m.

Social/Political Science – Room 210B

10:30 a.m. – 1:00 p.m.

Sciences – Room 210

12:00 noon – 1:00 p.m.

Arts, Journalism, Health, and Social Sciences – Room 210B

1:00 p.m. – 4:30 p.m.

Education and Problem Solving – Room 210

1:30 p.m. – 4:30 p.m.

#### Poster Sessions (all disciplines) – Library Atrium

Session I 8:30 a.m. – 9:30 a.m.

Session II 9:30 a.m. – 10:30 a.m.

Session III 10:30 a.m. – 11:30 a.m.

Session IV 11:30 a.m. – 12:30 p.m.

Session V 12:30 p.m. – 1:30 p.m.

Session VI 1:30 p.m. – 2:30 p.m.

Session VII 2:30 p.m. – 3:30 p.m.

Session VIII 3:30 p.m. – 4:30 p.m.

### Student Union Quad

11:00 a.m. – 1:00 p.m.

#### Demonstrations

##### Ceramics: Action on Two Wheels

Angela Fontana, Molly Copp, and Seth Rowitsch

Faculty Mentor: Professor Robert Wood, Design

##### Mini Baja Vehicle: 2009's Model

Benjamin Lorenz and Barry Rafan, Mechanical

Engineering Technology

Faculty Mentor: Professor David Kukulka,

Mechanical Engineering Technology

### Special Event: Book Signing

1:00 p.m. – 2:30 p.m.

#### “One Long, Wild Conversation”

Selected Letters Between a Buffalo State

Professor and His Student, a Writer

Professor Emeritus Fraser Drew and Distinguished

Alumnus Hank Nuwer (Class of 1968)

**E.H. Butler Library, Director's Conference Room (BL134)**

# Saturday, May 2, 2009

## E.H. Butler Library

### Oral Papers

#### Rooms 210 and 210B

### Humanities

#### Room 210B

8:30 a.m. – 10:30 a.m.

*Presenting:*

8:30 a.m. – 8:50 a.m.

Documentary: Habitat for Humanity in Portugal  
Charles Paddock, Technology Education

8:50 a.m. – 9:10 a.m.

The Exile and Home  
Sarah Fehskens, HON 400: All College Honors Colloquium

9:10 a.m. – 9:30 a.m.

Rebellion in Ireland: Why Did Hugh O'Neill Challenge the Tudor Monarchy?  
Shannon O'Sullivan, History and Journalism

9:30 a.m. – 9:50 a.m.

An Exploration of Radicalized Romantic Rudiments Present in "Song of Myself"  
Lauren Kochel, Secondary English Education

9:50 a.m. – 10:10 a.m.

The Imbalance of Power Distributed in Society Based on Dystopian Fiction  
Tynesha Davis, English

10:10 a.m. – 10:30 a.m.

The Nature of Technology in "The Great Gatsby"  
Caitlin Hogan-Lazar, English

### Business and Technology

#### Room 210

9:00 a.m. – 11:45 a.m.

*Presenting:*

9:00 a.m. – 9:15 a.m.

Chinese Culture and Business Practices  
William Logan, Hospitality and Tourism, Jonathan Castillo, Business Administration, and Quintarra Lee, Business Administration

9:15 a.m. – 9:30 a.m.

The Business Intelligence Diet  
Ken Lockwood, INT 689: Research Methods

9:30 a.m. – 9:45 a.m.

Apparatus for Performing Automated Pressure Decay Leak Testing  
David Siembida, Jeffrey Przepasniak, and Danny Kalonda, ENT 465: Electrical Design

9:45 a.m. – 10:00 a.m.

Four-Bit Circuit Counter Functional Tester  
Clayton Cutler II, Dan Butch, and Ronald Dolcine, ENT 465: Senior Design

10:00 a.m. – 10:15 a.m.

Development of a Metal Rolling Lathe for Production  
Daniel Adamchick, INT 689: Research Methods

10:15 a.m. – 10:30 a.m.

Integrating 5S Into a Job Shop Environment  
Michael Wzykiewicz, INT 689: Research Methods

10:30 a.m. – 10:45 a.m.

Re-Engineering the 914th Medical Squadron's Process Flow: Pre-Admission to Discharge  
Liaquat Ali and Mohammad Ali, INT 689: Research Methods

10:45 a.m. – 11:00 a.m.

Virtual Shared Services Organization Governance and Cost Structure  
Ranjit Kolla, INT 689: Research Methods

11:00 a.m. – 11:15 a.m.

There's Powder in Numbers: Lean Engineering Inspires a Powdercoat Job Shop  
Glen Kern, INT 689: Research Methods

11:15 a.m. – 11:30 a.m.

Transition From 100% Inspection to Quality at the Source: A Manufacturing Case Study  
Joseph Mazurkiewicz, INT 689: Research Methods

11:30 a.m. – 11:45 a.m.

How Well Do We Know Our Neighbors?  
Rashida Dacosta, BUS 363: Business in the Western Hemisphere

### Social/Political Science

#### Room 210B

10:30 a.m. – 1:00 p.m.

*Presenting:*

10:30 a.m. – 10:45 a.m.

Israel-Palestine: Attempts for Peace  
Brandi Kennedy, Political Science

10:45 a.m. – 11:00 a.m.

Human Rights: May I Have Your Attention Please?  
Vanda Brinson, Political Science and Peter Anthony, Political Science

11:00 a.m. – 11:15 a.m.

Why Did Socially Progressive California Approve Proposition 8?  
Philip O'Grady, Political Science and Henry Zomerfeld, Political Science

11:15 a.m. – 11:30 a.m.

An Uphill Battle: International Organized Crime's Growing Threat to Nation States  
Michael Pfonner, Political Science



11:30 a.m. – 11:45 a.m.

History of Canadian/US Border: Buffalo, Detroit, and Vancouver

William Dickerson, French

11:45 a.m. – 12:00 noon

Move Towards the Center-Left: Upstate is Democratic, Finally!

Clifford Cawthon, Political Science

12:00 noon – 12:15 p.m.

Identities in Exile: Examining Tension and Conflict Between Haitian and Dominican Immigrants in New York City

Huewayne Watson, History

12:15 p.m. – 12:30 p.m.

Just Don't Marry One: Explicating the Gap Between Low Interracial Marriage Rates and High Interracial Sexual Relations Rates

Star Johnson, Political Science

12:30 p.m. – 12:45 p.m.

The United States and Japan: An International Affair

Kelsey Carson, Elementary Education

12:45 p.m. – 1:00 p.m.

How Individuating Information and Racism Affects the Activation and Use of the African American Stereotype

Rhudwan Nihlawi, Psychology

## Sciences

### Room 210

12:00 noon – 1:00 p.m.

*Presenting:*

12:00 noon – 12:15 p.m.

The Role of Static Charge in Dirt Accumulation on Paintings

Jamie Abbott, Chemistry

12:15 p.m. – 12:30 p.m.

Comparing Gap Junction Structures Using Tryptophan-Scanning

Yvonne Woolwine, Biology, M.A. and Jennifer Karcz, Biology, M.A.

12:30 p.m. – 12:45 p.m.

Genetic Analysis of American Bald Eagle Populations in the Northeastern United States

Amelia F. Alessi, Biology Education

12:45 p.m. – 1:00 p.m.

Cutting Crime: SEM Analysis of Saw Marks in Bone

Christi Rattle-Hinman, Forensic Science

## Arts, Journalism, Health, and Social Sciences

### Room 210B

1:00 p.m. – 4:30 p.m.

*Presenting:*

1:00 p.m. – 1:15 p.m.

Designing Costumes for "Sour Lemons" Television Pilot

Megan Westenfield, HON 400: All College Honors Colloquium

1:15 p.m. – 1:30 p.m.

Literacy: A Ticket to Success

Katie McGowan, Journalism

1:30 p.m. – 1:45 p.m.

Sometimes They Are Forgotten: Investigating Police Response to Children Left in Cars

Kari Sumner, COM 390: Investigative Reporting

1:45 p.m. – 2:00 p.m.

Eighteen to Life for Stealing a Camera: Investigating a Suspected Miscarriage of Justice

Olabusayo Soetan and Shawn Kline, COM 390: Investigative Reporting

2:00 p.m. – 2:15 p.m.

"We Didn't Do It": USG and the Camp Weekend Accusations

Amanda Hernandez, COM 390: Investigative Reporting

2:15 p.m. – 2:30 p.m.

Arrest or Kidnapping: What Happened to Syaed Ali and His Family?

Sandra Perrin, COM 390: Investigative Reporting

2:30 p.m. – 2:45 p.m.

Trauma on the Train: A Case of NFTA Police Brutality

Shannon O'Sullivan, COM 390: Investigative Reporting

2:45 p.m. – 3:00 p.m.

Britney Spears: Pop Icon

Brittany Jackson-Machmer, Media Production and Tiffany Monde, Journalism

3:00 p.m. – 3:15 p.m.

The Effects of Automatic Withdrawals on College Student's Accounts

Patrick Martin, COM 390: Investigative Reporting

3:15 p.m. – 3:30 p.m.

Self-Monitoring Blood Pressure and Walking Program: Translating Research Into Practice

Ashley St.Onge, Health and Wellness

3:30 p.m. – 3:45 p.m.

Can You Hear Me? An Assessment of the Current Adoption Process

Faith Hoffman, Social Work

3:45 p.m. – 4:00 p.m.

Cesarean Sections on the Rise Locally: Convenience or Necessity?

Shrell Krawczyk, COM 390: Investigative Reporting

4:00 p.m. – 4:15 p.m.

Inside the Lives of Dancers

Marissa Gibbons, Communications

4:15 p.m. – 4:30 p.m.

World in a Rubbermaid Container: The Role of the Object in Memory

Wendy Hilleren, HON 400: All College Honors Colloquium

## Education and Problem Solving

### Room 210

1:30 p.m. – 4:15 p.m.

*Presenting:*

1:30 p.m. – 1:45 p.m.

Utilizing Technology to Reach Diverse Museum Audiences

Tracy Gladkowski, Multidisciplinary/Museum Studies and Danielle Brooks, History with Museum Studies

1:45 p.m. – 2:00 p.m.

Incorporating Multimedia in Social Studies Instruction

Sara Knapp, Exceptional Education and Anna DeBalski, Childhood Education

2:00 p.m. – 2:15 p.m.

Enrollment in Tech Education: Identifying Effective Recruitment Strategies

William Maher, INT 689: Research Methods

2:30 p.m. – 2:45 p.m.

Impact of Language in Attracting Girls to Technology Education

Loreen Hayes, INT 689: Research Methods

2:45 p.m. – 3:00 p.m.

An Analysis of Technology Education Programs on the High School Dropout Rate

Greg Keenan, INT 689: Research Methods

3:00 p.m. – 3:15 p.m.

Benefits of Curriculum Mapping at Grand Island Central Schools

Jonathan Shelley, INT 689: Research Methods

3:15 p.m. – 3:30 p.m.

The Issues, the Process, the Parties: A Political Guide for Educated Dummies

April Margarella, Creative Studies

3:30 p.m. – 3:45 p.m.

Inside the Box: A Look Inside the Minds of Creative Masters

Ryan Easttum, Creative Studies

3:45 p.m. – 4:00 p.m.

Pre-Service Science Teacher's Experience With Middle School SSSNOW Project

David Maute, Science Education and Scott Silverman, Science Education

4:00 p.m. – 4:15 p.m.

Utilizing Educational Technologies in Your ANGEL Online Courses

Leah Sciabarrasi, Educational Technology

## Poster Sessions

### Butler Library Lobby

8:30 a.m. – 4:30 p.m.

**Session I: 8:30 a.m. – 9:30 a.m.**

*Presenting:*

Academic and Personal Stress and Problematic Alcohol Use:

A Cluster Analysis

Nicole Bayldon, Psychology

ADHD Symptomatology and Motivations to Attend College

Sisi Chen, Psychology

Adventures in Scene Painting

Candace Morrison, Jessica Colin, Amy Laemmerhirt,

Tamara Strowger, Ashley Bobbett, Cordero King, and

Christina Golab, THA 333: Scene Painting

Are Chlorine Levels in Niagara Falls Household Water During the Winter Within Regulation Standards?

Jameieka Price, Geography

Cheap or Chic? Preference for Outlet Malls vs. Retail Malls

Rachael Melson, Randi Schwartz, Rebecca Waterbury, and

Margaret Willis, FTT 355: Research in Fashion Merchandising

Diabetes Costs: An Arm and a Leg

Brian Battino, HEW 411: Critical Issues in Health and Wellness

An Examination of Alcohol Policies at Colleges and Universities in New York State

Kristen Campise, Individualized Studies

Fit to Fight: The Impact of the MMA Phenomena on Health and Fitness

Amanda Jurdi, HEW 411: Critical Issues in Health and Wellness

GIS Analysis of Impact of Industrial Remediation Sites to Cancer Incidents Across New York State

Casey Anderson, Urban Planning

How Can Color Affect You?

Amanda Hamlin, HON 400: All College Honors Colloquium

Is There a Kryptonite to the Infamous Superbug?

Jelani James, HEW 411: Critical Issues in Health and Wellness

It's a Vagina, Not a Vending Machine!

Steve Scrocchi, HEW 411: Critical Issues in Health and Wellness

Labile Carbon Influences Soil Respiration Along an Old-Field Succession Gradient in Western New York

Phillip Kenline, Biology Education

Landscapes of Thought: A Surrealistic Approach to the Complex Emotions of Nostalgia and Melancholy

Brian Nacov, HON 400: All College Honors Colloquium

The Often Ignored Epidemic: Bullying in Today's Schools

Jonathan Skender, HEW 411: Critical Issues in Health and Wellness





Plant Population Dynamics: How Flood Frequency Delays  
Competitive Exclusion

**Melissa Jeckovich**, Applied Math

Potters Wellness: An Exploration of Stretches and Exercises to  
Prevent Injury

**Chad Pentoney**, Design (ceramics)

Purchase of Intimate Apparel

**Cara Stanton, Rachel Shearer**, and **Lisa Atkins**, FTT 355:  
Research in Fashion Merchandising

Refugees in Buffalo: An Understanding of American Education

**Jessica Poland**, Individualized Studies

Seasonal Forecasting Using Past Seasons

**Colin Bittner**, Geography

Silent Protest: The Evolution of Resistance Literature and the  
American Electorate

**Star Johnson**, Political Science

Snowspotting on Campus 2008-09

**Joseph Petre**, Geography

A Strong Foundation: Undergarments of the Victorian and  
Edwardian Periods

**Jennifer Maynulet**, Fine Arts

Testosterone: The Answer?

**Michael Gloss**, HEW 411: Critical Issues in Health and Wellness

What's in it For U.S.? Self Interest and United States Foreign Aid  
Allocation

**Brian Sarama**, Political Science

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

### *Presenting:*

Academic Stress and Reasons for Stimulant Use Among College  
Students

**Nicole Bayldon**, Psychology

Baby Mama Drama

**Jessica Snyder**, HEW 411: Critical Issues in Health and  
Wellness

College Students' Perception of Body Modification

**Alisha Shantz, Ashley Simon**, and **Sarah Traylor**, FTT 355:  
Research in Fashion Merchandising

Copyright and Plagiarism Among College Students:  
Where's the Line?

**Bethany Wagner**, Psychology

Disease and Travel: What Are You Picking Up?

**Derrek Basile**, HEW 411: Critical Issues in Health and Wellness

Explorations in Devore, Weaving and Dyeing

**Tegan E. Ford**, Design (fiber)

Food Web-Mediated Transport and Bioaccumulation of Flame  
Retardants (PBDE) in Lake Erie

**Jessica Wuerstle**, Biology and **Jon Tarasiewicz**, Biology

GIS Visualization of Lead Contamination Effects to Children in the  
City of Buffalo, New York

**Justine David**, Urban Planning

Hormonal Therapy: Human Growth Hormone and Hormone  
Replacement Therapy for Anti-Aging

**Blair Dawson**, NFS 330: Seminar on Complementary and  
Alternative Nutrition

The Impact of Antioxidants on Anti-Aging

**Megan Braun**, NFS 330: Seminar on Complementary and  
Alternative Nutrition

Inside the Emerging Refugee Community on the West Side of  
Buffalo

**Benjamin Grisanti**, Sociology

Intimate Objects

**Anthea Iatridis**, Design (metals/jewelry)

Japanese Style Miniature Wood Burning Kiln

**Sumiyo Roland**, Ceramics/Design

LBJ Isn't Here Today: Why Negative Ads Are Not the Same as They  
Once Were

**Maegen Hall**, Political Science

Making Men's Hats

**Jessica Colin**, Theater

Name Discrimination of Job Applicants: The Influence of Modern  
Racism and Commuter Stress

**Jessica Chilicki**, Psychology

The Naked Public Square: Technology, Consumption, and the Rise  
of the Unelected

**Ryan Stearns**, Political Science

Niche: Progressing Students and Professionals

**Vincent Pontillo**, Design (metals/jewelry)

Rational Responses Under Irrational Circumstances: A Realist  
Perspective on the New Security Dilemma

**Daniel Berger**, Political Science

Set Design

**Ashley Bobbett** and **Jason Klinger**, THA 337: Set Design

Sleep Apnea: A Rising Disorder

**Brittany Waters**, HEW 411: Critical Issues in Health and  
Wellness

The Square Watermelon ... or Creativity and Teamwork in New  
Product Development

**Dean Drago, Patty Minard, Kevin Skovenski** and **Shawn  
Hess**, BUS 389: New Product Management

St. John's Wort

**Brianna Marrin**, NFS 330: Seminar on Complementary and  
Alternative Nutrition

Women: The Unsung Heroes of the Civil Rights Movement

**Sametra Toe**, Sociology and Journalism



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

#### *Presenting:*

Back in the Day: The Work of Advanced Costume Design  
**Fausto Abreu, Melanie Derblich, Danielle Phillips, Zachary Serafin, Tamara Strowger, Leigha Weeks, and Amy Laemmerhirt, THA 334: Costume Construction II**

Body Casting  
**Teri Drennan, Ceramic Design and Art Education**

Botanical Medicine  
**Leah Campanile, NFS 330: Seminar on Complementary and Alternative Nutrition**

Do You Really Want to Be One Less?  
**Megan Kunecki, HEW 411: Critical Issues in Health and Wellness**

Determining Behavioral Responses to Boat Traffic and Noise in the Northern Diamondback Terrapin (*Malaclemys terrapin*) in Barnegat Bay, New Jersey  
**Andrew Harrison, Biology and Lori Lester, Biology (Drexel University)**

The Effect of Curing Conditions on the Structure and Stability of Amino-Functionalized Organic Films on Silicon Substrates  
**Catherine Fill, Forensic Chemistry, Alicia Maneen, Forensic Chemistry, and Lindsay Brignon, Chemistry**

Effects of Dietary Fatty Acids on Growth of Alewives, a Key Great Lakes Fish Species  
**Chad DeMarche, Biology**

Energy Drinks: To Drink or Not to Drink?  
**Louis Eve, HEW 411: Critical Issues in Health and Wellness**

Environmental Degradation vs. Artistic Intention: The Darkening of Lead Pigments on Japanese Woodblock Prints  
**Christina Finlayson, Art Conservation**

Fishing for an Alternative to the Traditional Source of Isinglass: Preliminary Investigations  
**Eileen Sullivan, Art Conservation**

Herbs as Dietary Supplements  
**Chelsey Becker, NFS 330: Seminar on Complementary and Alternative Nutrition**

Ikat Study and Experiments  
**Diane Meyer, Textile Design Technologies**

Innexin Studies  
**Adam DePriest, Biology**

Inside the Cell-Treasure?  
**Dorothy Rapp, Design**

Interdisciplinary Art Education: Making Connections  
**Tracy Giblin, Art Education**

It's Not a Dream, It's Neem  
**Megan McCormack, HEW 411: Critical Issues in Health and Wellness**

Live a Berry Good Life  
**Dallas Bell III, HEW 411: Critical Issues in Health and Wellness**

Matryoshka, Meet Filigree  
**Vincent Pontillo, Design (metals/jewelry)**

The Portfolio of a Theater Design Student  
**Amy Laemmerhirt, Theater**

Possible Sources of *E. coli* and Relationship to Turbidity in Cayuga Creek, Niagara County, New York  
**Jessica Bakert, Geography**

Properties of Intercellular Channels of Human Connexin 31 Implicated in Skin Disease  
**EmmyLou Hock, Biology**

Seeing the Unseen  
**Sarah Chudyk, HON 400: All College Honors Colloquium**

Steampunk Metal Adornments  
**John Harris, Jewelry Design and Anthropology**

Student Debt: The Use of Cash, Credit, Debit Cards and Correlated Level of Debt  
**Jessica Pates, Jennifer Becker, Marni Bleichfield, Novella Curtis, Michael Downie, Melissa Filock, Robert Helwig, David Musielak, Vince Piraino, and Watoii Rabii, Psychology Club Research Team**

Wii Fit or Wii Fat?  
**Whitney Yaksich, HEW 411: Critical Issues in Health and Wellness**

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

#### *Presenting:*

The Advancing Technologies and Emerging Techniques of Art Education  
**Garrett Fallin, Art Education**

Clay Rocks: Manipulating an Outdoor Medium  
**Matthew Herrington, Ceramic Design**

Decal and Screen Printing on Clay  
**Chad Pentoney, Design (ceramics)**

Determining Phosphorus, Nitrogen, Iron Ratios Which Optimize Algal Blooms in Fresh Water Wetland Systems  
**Monique Wilson, HON 400: All College Honors Colloquium**

The Development and Evaluation of a New Academic and Personal Stress Scale  
**Nicole Bayldon, Psychology**

Do You See What We See? A Comparison of Crime Scene Interpretations  
**Ashley Dauphin and Harvey Mosher: HON 400: All College Honors Colloquium**

Effects of Aging Verdigris in Artist Prepared Paint  
**Megan Berkey, Art Conservation**

The Effects of Interactive Versus Simple Read Alouds on Young Childrens' Vocabulary Acquisition and Usage

Alyssa Kurtz, Melissa Cotton, Lindsey Martin, Sara Schmitt, Suzanne Koons, Samantha Kempis, Meagan Riordan, and Amanda Kach, EDU 311: Teaching Reading and the Other Language Arts

Experiences and Opportunities Provided Teacher Candidates in PDS

Amy Henchey, Literacy Specialist (B-6), Rachel Mooney, Early Childhood and Childhood Education, and Bryana Loos Haas, Early Childhood and Childhood Education

Failure Analysis and Design of a Poppet Style Check Valve  
Todd Salzler and Peter Greenhalgh, ENT 422: Machine Design II

How Fast is Greenland's Ice Sheet Melting?  
Jason Bartoszek, Earth Sciences

Inexpensive Very High Speed Photography for Mechanics  
Steven Wilser, Melissa Chudyk, and Steven Dutter, HON 400: All College Honors Colloquium

Investigation of the Formation and Structure of Amine-Terminated Organic Films on Silicon Substrates  
Lai Sze Wan, Forensic Chemistry and Michael Munella, Biology

Juvenile or Aged: SEM Images of Santa Ana Volcanic Ash, El Salvador  
Elizabeth Scheeler, Geology

Metal-tini: Jewelers and Martini Glasses  
Vincent Pontillo, Design (metals/jewelry)

Mineral and Textural Variations in Granites of the Sebago Pluton at Its Eastern Contact Zone, Southern Maine  
Kelly Nyitrai, Earth Sciences

Modeling Storm Water Runoff From the Buffalo State Campus in Support of State Storm Water Permit  
Jason Pantano, Geography

Mokume Gane  
Anthea Iatridis, Design (metals/jewelry)

A Psychometric Evaluation of the Zimbardo Time Perspective Inventory  
Dave Musielak, Jessica Pates, Maureen Brett, and classmates, PSY 450: Research Methods in Psychology

The Relationship Between Personality, Perceptions of Risk, and Parental Involvement on Repeat Drinking and Driving  
Darryl Hamilton, Psychology and Criminal Justice

Reconstructing the Paleoclimate of Northern Baja California Through the Analysis of Packrat Middens  
Jolani McClellan, Geography

Solar Energy Collection and Conversion Experiment  
Shawn Mommertz, David Skierczynski, and Sharayah Walker, ENT 422: Machine Design II

Structural Damage Analysis of Urban and Rural Buildings Impacted by Sichuan Earthquake Applying Remote Sensing  
Li Xie, Urban Planning

Video Game Motion Controls and Aggression  
Kevin Villareale, Psychology

Water Meter Cover Lock  
Tim Curcione and Turrón Daly, ENT 422: Machine Design II

## Session V: 12:30 p.m. – 1:30 p.m.

*Presenting:*

Affects of the School Environment on Student Achievement  
Daphne Bell, Jennifer Valeri, Lindsey Crill, and Christine Bussa, EDU 312: Teaching Mathematics and Science in Elementary Schools.

The Association Between Prenatal Cocaine Exposure and Physiological Regulation in 13-Month Old Infants  
Susan Danielewicz, Psychology

Bear Ridge: Is it a Drumlin?  
Nicholas Loncto, Earth Science

Chair: Historical Changes  
Irina Dyuzheva, Interior Design

Creation of a Collaborative Sculpture  
Ian Carr, Fine Arts

Creative Problem Solving and Academic Success  
Ted Mallwitz, HON 400: All College Honors Colloquium

Did a New Island Grow in Caldera Lake Coatepeque, El Salvador?  
Michael Reilly, Geology

Driving Green With Biodiesel  
Alex Hubert, Mechanical Engineering Technology

Effective Instructional Supports for African American Teacher Candidates  
Felicia Scott, Childhood Education

Elementary Education Undergraduate Responses to an Urban Shadowing Experience  
Rachel Mooney, Childhood and Early Childhood Education

“Everyman” Set Design  
Fred Pascolini, Theater

If Music Be the Food of Love: Dramaturgy For “Twelfth Night” or What You Will  
Melanie Derblich, Theater

Is Healthcare for the Elderly Going to the Dogs?  
Lori J. Olivieri, Individualized Study

The Journey Through Eastern Europe  
Lindsey Brown, Fine Arts (sculpture)

Latvian Travels-Sculptures From Creative Minds  
Todd Nowak, Art Education

Measurement of the Mossbauer Line Width as a Function of Sample Material  
Joseph Steiner, Physics

Measuring the Impeller Clearance of a Centrifugal Compressor at Operational Speed

**Todd Salzler and Peter Greenhalgh**, ENT 422: Machine Design II

Minerological and Textural Variation in a Roadcut Exposure of Meta-Anorthosite Near Indian Lake, Adirondacks, NY

**Lindsay Tebo**, Geology

Play: The New Four Letter Word

**Krystal Bellanti**, Elementary Education and **John McGowan**, Elementary Education

Reconnecting Students With Nature

**Brittany McCarty**, Elementary/Exceptional Education and **Trisha Podlaski**, Early Childhood/Childhood Education

The Relationship Between Time in School, Provocation, and Aggression

**Alexis Krieger**, Psychology

Satiation of Play in Juvenile Rats: Is the Coolidge Effect Applicable?

**Tomicka Madison**, Psychology

The Search for a Refractory Castable Claybody

**Matthew Hill**, Design (ceramic) and Art Education

Toxic Soils on Playgrounds?

**Amanda Dory**, Geology and **Diane Dory**, Geology

An Unbearable Mystery: The Drumlins of Western New York

**Dan Serianni**, Geology

Unearthing Grand Island's Past: Buffalo State Archaeological Field School 2008

**Nicole Martin**, Forensic Chemistry and **Dan Corbitt**, Anthropology

Waste Heat From Compression of Air: Is it Really Waste?

**Patrick Pierce**, **Charles Abbott**, and **Steven Gardner**, ENT 422: Machine Design

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

*Presenting:*

Analyzing Foliation Intersection Axes (FIAs) From the Appalachian Mountains With World Expert in Australia

**Peter Nyznyk**, Geology

Behavioral and Physiological Response of a Rat to Predator Scent as a Function of Environment Familiarity

**Vincenzo Piraino**, Psychology

Black Hawk Up: American Intervention in Somalia

**Timothy Walters**, Political Science

Carpets: Not Just a Place to Wipe Your Feet

**Kim Jarrard**, HON 400: All College Honors Colloquium

Classroom Team-Building Activities

**Pamela Lange**, **Jason Malczewski**, **Jackie Newell**, **Sharlyn Ten**, **Nicole Teti**, and **Tina Thomson**, EDU 312: Teaching Mathematics and Science in the Elementary School

Confronting Childhood Obesity: Teaching Healthy Habits Young  
**Lindsay Putzbach** and **Rawan Shamaa**, HON 400: All College Honors Colloquium

Create, Publish, and Share (CPS) Project Phase II

**Katelyn Iovino**, **Sarah Zengar**, **Nicole Penton**, **Kristina Zaleski**, **Jesse Chertow**, **Jason LeGrett**, **Samantha Hillis**, **Kristin DiMillo**, **Jennifer Augstell**, **Kayla Maggard**, **Michelle Kaczmarek**, **Randall Yu**, **Corey Wilson**, **Dave Van Blargan**, and **Marine Dembrow**, EDU 312: The Teaching of Mathematics and Science in the Elementary School

Design of a Solar Water Heating Panel

**Caleb Hamlin** and **Paul Schwab**, ENT 422: Machine Design II

Designing a Multi-Use Space for the Buffalo State Community

**Hilary Salmon**, Communication Design

Eat This, Not That: The No-Diet Weight Loss Solution!

**Megan Kunecki**, Health and Wellness

The Effects of Young People in Politics

**Mouminatou Diallo**, Political Science, **Emily Miller**, Political Science, and **Ashlee Lovette**, Political Science

An Evaluation of Buffalo State Food Services: Available Nutrients, Vegan Diets, Student Food Preferences, and Campus Meal Consumption

**Laila Marchini**, Dietetics

Geomorphic Mapping in Margaritifer Terra, Mars: MTM - 20022

**Jacob Hodgson**, Earth Sciences

Glaze Craze

**Morgan Meheran**, HON 400: All College Honors Colloquium

Math in Disguise: A Web-based Approach to Investigating Math Through Literacy

**Nicole Berg** and **Emily Marvin**, HON 400: All College Honors Colloquium

Music and Motions for Unforgettable Learning

**Amy Henchey**, Literacy Specialist and **Ashley Konka**, Early Childhood and Childhood Education

A New Silk Market Vision

**Yolanda Rondon**, HON 400: All College Honors Colloquium

Offshore Power Supply

**Brittney Canty** and **Kris Konopa**, ENT 422: Machine Design II

Prenatal Cocaine Exposure and Physiological Regulation at Three Years of Age

**Cory Clontz**, Psychology

Prenatal Cocaine Exposure and Physiological Regulation: Does Physiological Regulation at One Month Predict Regulation at Two Years of Age?

**Jennifer Vitaris**, Psychology

Shopping Habits of Male and Female College Students

**Dennis Pickens**, **CaSandra Reid**, **Laura Mann**, and **Kadia Blagrove**, FTT 355: Research in Fashion Merchandising

Social Networking Websites and Social Support

**Amanda Elizabeth Groeger**, Psychology



Splunk: A Revolution in Data Mining  
**Daniel Ryan**, Computer Information Systems and **Kyle Root**,  
Computer Information Systems

Subsea Power Generation for Subsea Electric Trees  
**Amauris Rodriguez** and **Shawn Kibler**, ENT 422: Machine  
Design II

Turkey and the Future of ESDP  
**Felipe Perez**, History

Web Analytics and Google Analytics: Usage in Business  
Enhancement  
**Matthew Richardson**, Computer Information Systems and  
**Bethany Tucker**, Computer Information Systems

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

### *Presenting:*

Adsorption Isotherms for a Planar Slit Between Non-Identical  
Solid Walls  
**Joe Crawford**, Mathematics and **Mark Lojaco**, Biology

Are Children in the City Exposed to More Harmful Elements Than  
Children in Suburban or Rural Areas?  
**Ryan Feickert** and **Lauren Wittlinger**, GES 460:  
Environmental Field Methods and Analysis

Assessing Student Appreciation of the Liberal Arts at BSC  
**Brian Kline**, Psychology

Automated Temperature Control Chamber  
**Andres Velez**, **Leonard Wizner**, **Gregory Maciejewski**, and  
**Nicholas Winkowski**, ENT 465: Electrical Design

Can Eyewitness Accuracy be Improved?  
**Abigail Pardue**, Psychology

Creating Consciously: An Introduction to Sustainable Design  
**Cortney Morrison-Taylor**, Interior Design

Creatively Surviving the Cuts  
**Bethany Day**, Art History

Critical Steps Required for Successful Geologic Field Research  
**Thomas Bohlen**, Geology

A Demonstration of Wireless Electrical-Energy Transfer Using a  
Tesla Coil  
**Cordero King**, **Hugo Pineda**, and **Christopher Fowler**,  
ENT 465: Electrical Design

Designing a Program to Promote Literacy and Foster an  
Appreciation for Literature in Children  
**Leah Kerr**, **Annika Laughlin**, and **Kelsey Till**, HON 400:  
All College Honors Colloquium

Dissecting the African American Presidential Candidacy: How  
Media Favorability Led to Success of Barack Obama  
**Star Johnson**, Political Science and **Nicholas Gonka**,  
Political Science

Does Motivation to Play Satiated?  
**Gina Benevento**, Psychology

E-Commerce: Expansion and Development Through Web Mining  
**Michael Rice**, Computer Information Systems

The Effects of Character Evidence and Judicial Instructions on  
Juror Decision Making  
**Andrea Edick**, Psychology

Elemental Analysis of Chert  
**Krista Ventura**, Earth Science and Anthropology

The Enduring Battle of Education and Motivation  
**John Metzinger**, Political Science

Factors Predicting Negative Attitudes Toward Canadians Among  
Western New Yorkers  
**Alexis Luttrell**, Psychology

Graduate Leadership in Higher Education  
**Elissa Mittendorf**, Creative Studies

Green House Environments  
**Shaniqua Palmer**, Social Work

The Look of Luxury, But at What Price?  
**Jacqueline Schuchmann**, **Miranda Warner**, and **Amanda  
Martin**, FTT 355: Research in Fashion Merchandising

New Kids on the Block: How Developing Countries Growing  
Energy Needs are Bullying the U.S.  
**Nick Gonka** and **Jerry Krajna**, PSC 330: American Foreign  
Policy

Objectification in Fashion Print Ads and its Affect on College  
Women  
**Alyssa Guley**, **Megan Harrick**, and **Kristin Miller**, FTT 355:  
Research in Fashion Merchandising

Rapid Prototyping  
**Barry Rafan**, ENT 314: Solid Modeling

A Record of Continental Collision in Western Connecticut:  
Laboratory Analysis of the Famous “Log-Jam” Schist  
**Charles Harding**, Earth Sciences and Earth Science Education

Utilizing Undergraduate Learning Assistants to Redesign  
Economics 101  
**Ginger DeMita**, **Ashley Hurd**, **Dana Myers**, **Christina  
Thomann**, **Kyle Kunkle**, **Rachael Edie**, and **Ashley  
Jabkuzcack**, ECO 495: Special Project – ECO 101 Tutoring

What Makes Russia So Different From the United States in Their  
Teaching Techniques?  
**Crystal Mailloux**, Earth Sciences

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

### *Presenting:*

Advantages of Prototyping With SolidWorks  
**Steven Wilson**, Mechanical Engineering Technology

Air Bearing Development for High Speed Centrifugal Compressor  
Application  
**Amauris Rodriguez** and **Shawn Kibler**, ENT 422:  
Machine Design II

Air Quality on Campus: Friend or Foe?

**Rachael Smith** and **Shawn Eckert**, GES 460:  
Environmental Field Methods and Analysis

Can Carl Roger's Theory of the Fully Functioning Human Be  
Applied to Creative Thinking in Residence Hall Atmospheres?

**Elizabeth Scharf**, HON 400: All College Honors  
Colloquium

Coating Evaluation

**Caleb Hamlin** and **Paul Schwab**, ENT 422: Machine  
Design II

Contact Angle of a Drop on Smooth Solid Surfaces

**Joe Crawford**, Mathematics, **Mark Lojacono**, Biology, and  
**Veronica Concra**, Biology

Data Mining and Homeland Security

**Philip Overton**, Computer Information Systems and  
**Marion Bryant**, Computer Information Systems

Drinking Water Quality on Campus

**Ernest Thalhamer**, Geology and **Kerri Spuller**, Earth  
Science

Does Your Finger Length Predict Your Longevity?

**Vincenzo Piraino**, Psychology

The Effects of a Changing Economy on Fundraising Events

**Alexandra Jenkins**, Hospitality Administration

Ernest Untermann Revisited

**Jennifer Grasso**, Geology

An Examination of Personality Characteristics of Women  
Who Engage in Romantic Relationships With Authoritative  
Figures

**Alexis Krieger**, Psychology

Eyewitness Testimony and the Usefulness of the Cognitive  
Interview

**Jelisa Tonge**, Psychology

The Five W's of Melodic Intonation Therapy

**Caralyn Lopez**, HON 400: All College Honors Colloquium

Going Green: Consumerism and Businesses

**Liz Szeluga**, **Hilary Lyke**, **Sara Tremaine**, and  
**Jamie Dennis**, FTT 355: Research in Fashion  
Merchandising

The Influence of Feng Shui on Interior Design

**Michelle Lange**, HON 400: All College Honors Colloquium

IR Cooler Redesign

**Kristopher Konopa** and **Brittney Canty**, ENT 422:  
Machine Design II

Leg Stretching Machine for a Patient With Familial Spastic  
Para Paresis

**Shawn Mommertz**, **David Skierczynski**, and  
**Sharayah Walker**, ENT 422: Machine Design II

Media and Advertisements Influences on Women

**Kaleigh Foley** and **Kristina Flippen**, FTT 355: Research  
in Fashion Merchandising

Natural Resources and Civil Wars

**Mouminatou Diallo** and **Ashlee Lovette**, PSC 330:  
American Foreign Policy

Predicting Preparedness for the Digital Television Transition  
Using Proven Factors of the Digital Divide

**Jessica Levenson**, Computer Information Systems

Programming for Anyone: Using Alice 3D to Teach and  
Learn Computer Programming

**Ernesto Miranda**, Computer Information Systems

Starting at the Roots: African-American Hair

**Talethia Cunningham**, **John Everett**, **Julie Halliburton**,  
and **Shavonne Rivera**, FTT 355: Research in Fashion  
Merchandising

Text Messaging: Semanticity and Productivity

**Jessica Pates**, Psychology and **Matt Clark**, Psychology

# Undergraduate Summer Research Fellowship Program

## **Jamie Abbott**, Chemistry

Faculty Mentor: Professor Gregory Smith, Art Conservation

Abstract Title: **The Role of Static Charge in Dirt Accumulation on Paintings**

Jamie Abbott, a December 2008 graduate with majors in Forensic Chemistry and Chemistry, has performed research in fields such as GC-MS validation of drug testing protocols and inverse GC of polymeric materials. After taking a year off, Jamie plans to attend medical school.

Jamie's research in art conservation challenged the conventional wisdom that acrylic latex artists' paints would act as "plastic" insulators, developing a static charge that would attract dust to the painting's surface. Jamie's research showed that acrylic paints are actually less prone to static than traditional oil based paints and most picture varnishes. Instead of static charge, her experiments point to the softer, and hence tackier, acrylic paint medium as a major cause for dirt accumulation on acrylic paintings. Jamie's results are being prepared for a scholarly publication as well as a poster presentation at the 2009 annual meeting of the American Institute for Conservation.



## **Amelia Alessi**, Biology Education

Faculty Mentor: Professor Amy McMillan, Biology

Abstract Title: **Genetic Analysis of American Bald Eagle Populations in the Northeastern United States**

Amelia Alessi is currently completing a B.S.Ed. degree in Biology. She anticipates graduating after student teaching in spring 2009. This summer Amelia plans to continue her research interests in genetics and molecular biology at the University of Michigan Ann Arbor, where she will pursue a Ph.D. in Human Genetics.

During the summer of 2008 Amelia contributed to a conservation genetic study of Bald Eagles from the Northeastern United States. She determined the sex of each bird using a PCR (Polymerase Chain Reaction) assay and genotyped over 400 birds at seven polymorphic microsatellite loci. Amelia also had the opportunity to work with biologists at the BioDiversity Research Institute to band and collect blood samples from eaglets in Maine. The results of her research will be presented to the New York State Department of Environmental Conservation and will contribute to a publication on eagle population genetics.



Recipients of Undergraduate  
Summer Research Fellowships in 2008

## **Nicole Bayldon**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

Abstract Title: **Academic and Personal Stress and Problematic Alcohol Use: A Cluster Analysis**

Nicole Bayldon is graduating in May 2009 with a B.A. in Psychology. In addition to her summer fellowship, Nicole completed an additional independent study and is completing her Honors Thesis. She has been an active member of the Psi Chi National Honors Society and the McNair Scholars Program.

For her research, Nicole investigated how personal and academic stress may be related to problematic drinking among college students. Prior research had found only weak links and Nicole sought to identify possible subgroups for whom this link was especially strong. Using data collected from Buffalo State undergraduates, Nicole found that roughly two-thirds reported high levels of stress. However, only about a half of those reporting high stress levels also reported high levels of negative affect (e.g., anxiety, depression) and it was only these students who also reported high levels of drinking to cope and problematic drinking. Nicole plans on presenting these findings at a national conference in 2009.



## **Jessica Chilicki**, Psychology

Faculty Mentor: Professor Dwight Hennessy, Psychology

Abstract Title: **Name Discrimination of Job Applicants: The Influence of Modern Racism and Commuter Stress**

Jessica Chilicki is a Psychology major and graduated in December 2008. She plans on attending a Ph.D. program in Psychology in Fall 2009.

The purpose of Jessica's study was to examine the influence of commuter stress and modern racism on name discrimination of potential job applicants. After their regular commute, participants were given resumes of potential job applicants that contained stereotypical "white" and "African American" names. She found that both stress and modern racist attitudes were associated with poorer ratings of applicants with "African American" names who were equally qualified as those with "white" names. Jessica will be presenting her results at the 28th Annual Mid-Atlantic Undergraduate Psychology Research Conference in Franklin, Indiana.



## **Chad DeMarche**, Biology

Faculty Mentor: Professor Randal Snyder, Biology

Abstract Title: **Effects of Dietary Fatty Acids on Growth of Alewives, a Key Great Lakes Fish Species**

Chad DeMarche graduated in December 2008 with a Biology B.A. degree. Chad is currently enrolled in the Biology M.A. program at Buffalo State, and his goal after completing his Master's degree is to attend dental school.

Chad's research project examined the effects of dietary fatty acids on growth and energy content of an important Great Lakes fish, the alewife. The results indicate that fish consuming diets high in omega-3 fatty acids grow faster than fish fed diets high in omega-6 fatty acids. The results are important in understanding how Great Lakes fishes are likely to be influenced by food web changes, and the results will be presented at the annual meeting of the International Association for Great Lakes Research (IAGLR) in Toledo, Ohio in May 2009.





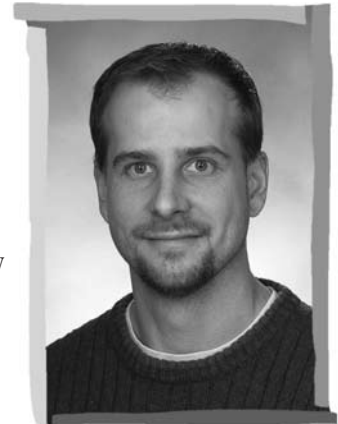
**Charles Harding**, Earth Sciences and Earth Science Education

Faculty Mentor: Professor Gary Solar, Earth Sciences

Abstract Title: **A Record of Continental Collision in Western Connecticut: Laboratory Analysis of the Famous “Log-Jam” Schist**

Charles Harding is a dual major in Earth Sciences and Earth Science Education. He will graduate with a dual B.S. degree in May 2009. Charles plans to attend graduate school in Earth Science Education, but he has also an interest in attending graduate school for geology given his keen interest in research into “hard rock” geology (the focus of his undergraduate research).

Charles’ research consisted of laboratory work, based largely on previous field work conducted in western Connecticut, documenting the mineralogical and textural variations in collected specimens of the famous “log-jam” schist. His work included quantifying mineral patterns and structures in hand specimen and under the microscope, and analyzing geochemical data from four of his rocks in order to augment mineral and textural data. His work provided necessary detail within an ongoing project on these rocks that has made the project ready for submission for publication in a geology journal, on which he will be a co-author.



**Matthew Hill**, Design (ceramics) and Art Education

Faculty Mentor: Professor Robert Wood, Design

Abstract Title: **The Search for a Refractory Castable Claybody**

Matthew Hill is a dual major in Design (ceramics) and Art Education and is graduating in May 2009. He is very interested in art and design and plans to pursue a master’s degree and then a teaching career in art.

Matt’s project involved developing a refractory, lightweight castable claybody. First, he tested various air drying materials, different concretes and castable materials to determine their properties and strength after firing to high temperatures. Next, to lighten the weight of these claybodies, he tested peat moss, sawdust and vermiculite as additives. From the results of the tests he created several small and one large-scale sculptural form(s) that were fired to 2345°F.



**Katie McGowan**, Journalism

Faculty Mentor: Professor William Raffel, Communication

Abstract Title: **Literacy: A Ticket to Success**

Katie McGowan will graduate with a B.A. in Journalism in May 2010. She plans to pursue a career in television news reporting and anchoring.

Katie produced a 5-part series of stories about illiteracy in Buffalo. She conducted background research, interviewed many people in the community, used a video camera to gather visual images to accompany her scripts, selected portions to include in the stories, before writing and editing the final stories. The pieces identify the challenges faced by illiterate persons and the risks of their children following suit. Several programs are discussed that help people in various ways, from tutoring to distributing books to needy families.



**Cortney Morrison-Taylor**, Interior Design  
Faculty Mentor: Professor Barry Yavener, Interior Design  
Abstract Title: **An Introduction to Sustainable Design**

Cortney Morrison-Taylor is graduating with a B.F.A. in Interior Design in May 2009. After graduation, she plans to pursue a career in interior design. Cortney also plans to take the LEED (Leadership in Energy and Environmental Design) accreditation exam before graduation.

Cortney's research involved studying the evolution of sustainable building and the environmental conditions that have stimulated its growth into the expansive field it is today. She examined several sustainable buildings and the different factors that make each building environmentally friendly. Cortney compiled case studies for several buildings, as well as created a PowerPoint presentation highlighting the founding principles behind sustainable design.



**Rhudwan Nihlawi**, Psychology  
Faculty Mentor: Professor Jennifer Hunt, Psychology  
Abstract Title: **How Individuating Information and Racism Affects the Activation and Use of the African American Stereotype**

Rhudwan Nihlawi will graduate with a B.A. in Psychology in May 2010. After graduating, he plans on pursuing a Ph.D. in Industrial/ Organizational Psychology.

Rhudwan's research involved investigating the cognitive processes involved in stereotyping. In order to study how personal information about a target affects stereotyping, Rhudwan created computerized reaction tasks to measure automatic stereotype activation in response to known and unknown individuals. His initial studies showed that people associate well-admired African Americans like Barack Obama and Oprah Winfrey with their personal characteristics rather than racial stereotypes. He is continuing this research by examining stereotyping in response to non-famous individuals. He will be presenting his work at the American Psychological Association convention in August 2009.



**Abigail Pardue**, Psychology  
Faculty Mentor: Professor Robert Delprino, Psychology  
Abstract Title: **Can Eyewitness Accuracy be Improved?**

Abigail Pardue is graduating in May 2009 with a B.S. in psychology and a minor in forensic anthropology. After graduation, she plans on attending the John Jay College of Criminal Justice, CUNY, to pursue graduate studies in Forensic Psychology.

Abigail's research focused on eyewitness identification. The study investigated how the type of interview used, paired with a specific type of photograph presentation of potential suspects, influenced the overall confidence and accuracy of an eyewitness in the identification of a suspect. Abigail presented her research at the Eastern Psychological Association annual meeting held in Pittsburg, PA, in March, 2009. She will also participate in the symposium "Mentoring Undergraduate Research in Psychology: The Student Perspective" at the annual convention of the American Psychological Association to be held in Toronto, Canada in August, 2009.



## **Dorothy Rapp**, Design

Faculty Mentor: Professor Stephen Saracino, Design

Abstract Title: **Inside the Cell-Treasure?**

Dorothy Rapp is graduating in May 2009 with a B.F.A. in Jewelry Design. She returned to college at Buffalo State after a career as a Cancer Research Scientist working for Roswell Park Cancer Institute.

For her project, Dorothy researched subcellular references and how one might apply this ideation to practical jewelry making. She studied cell images that were photographed under a light microscope and then an electron microscope. She then morphed these images into designs that would ultimately become pieces of wearable art. Ideas ranging from mitochondria (energy factories of the cell) to vacuoles that are inclusions found in cells that have a foamy/granular appearance. They both became wearable pieces of jewelry. Her work has been displayed in Student exhibitions in both the Design and Fine Arts Student exhibitions and was chosen to grace a promotional post card produced by the Design department's Jewelry Club, SIAM.



## **Sumiyo Roland**, Design (ceramics)

Faculty Mentor: Professor Stanley Panetski, Design

Abstract Title: **Japanese Style Miniature Wood Burning Kiln**

Sumiyo Roland is a ceramics/design major and plans to graduate in fall of 2009. Her intentions are to become a professional potter after graduation. Her academic interests are to pursue her Japanese traditional ceramics and to mix her Japanese art with western art.

During her research project, Sumiyo created miniature wood burning kilns based on traditional Japanese designs. In order to complete her research, she found appropriate clay bodies for building the kilns and for the pieces to be fired to cone ten (2345 °F) in the wood fueled kilns. After finding the appropriate clay bodies, she created six hand built kilns. She plans to submit her research to a ceramics publication.



## **Hilary Salmon**, Communication Design

Faculty Mentor: Professor Stan Friesen, Communication Design

Abstract Title: **Designing a Multi-Use Space for the Buffalo State Community**

Hilary Salmon is graduating in December, 2009 with a B.F.A. in Communication Design. Hilary enjoys creating brand and event identities and creating environmental graphics. After graduation, she would like to work in the field of Graphic Design, preferably in the WNY area.

Hilary's project was to re-design the Quad area between the E.H. Butler Library and Student Union on Buffalo State's Campus. She used Lightwave, a 3D modelling and animation program to model the project and create a fly-through to visualize the final concept. She is interested in bringing the campus together through the use of community spaces that are inviting and restful instead of the existing concrete blankness. The concepts envisioned here could be translated to other spaces on campus, including bus stops and seating areas, to help create a new identity for the campus.



**Felicia Scott**, Childhood Education

Faculty Mentor: Professor Pixita del Prado Hill, Elementary Education and Reading

Abstract Title: **Effective Instructional Supports for African American Teacher Candidates**

Felicia Scott is a senior in the Elementary Education & Reading Department. She is pursuing certification in childhood education (grades 1-6), and student taught during the fall 2008 semester. After graduation she plans to seek a position as an elementary teacher in Buffalo and begin a Masters in education program.

Felicia's project was designed to explore effective supports for African American teacher candidates. In particular, she was interested to learn what supports were most useful to this group of teacher candidates during their methods courses and the means by which they overcame challenges faced during the program. Data for this qualitative study included interviews with teacher candidates as well as a content analysis of a required reflective assignment. She presented her findings during the Buffalo State College Professional Development School's 2008 retreat and her project will be presented at the American Educational Research Association (AERA) 2009 Conference in San Diego, California.



**Ashley St. Onge**, Health and Wellness

Faculty Mentor: Professor Susan Baldwin, Health and Wellness

Abstract Title: **Self-Monitoring Blood Pressure and Walking Program: Translating Research Into Practice**

Ashley St. Onge is a Health and Wellness major and is graduating in May 2009. After graduating, Ashley plans to continue her education and attain a Masters of Public Health degree with an emphasis in Epidemiology.

Ashley's research project involved the development and implementation of a health promotion program at Gateway Longview, Inc. As a direct result of her summer research project, Ashley was invited to continue the worksite wellness program at Gateway Longview, Inc. and was awarded an internship with the Wellness Institute of Buffalo, NY. This led to a permanent position with the Institute. Ashley presented her research at the American Association of Health Education national conference in April where she was also awarded the Association's Undergraduate Health Major of the Year Award for her research and service in health promotion.



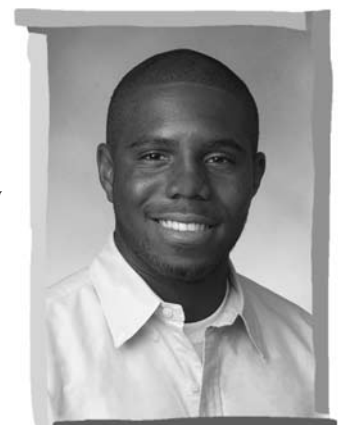
**Huewayne Watson**, History and African and African American Studies (minor)

Faculty Mentor: Professor Aimable Twagilimana, English

Abstract Title: **Identities in Exile: Examining Tension and Conflict Between Haitian and Dominican Immigrants in New York City**

Huewayne Watson is graduating in May 2009 and plans to pursue a graduate degree in History with a focus on Africana studies (African Diaspora studies).

For his research, Huewayne studied Haitian and Dominican identities in exile in New York City. He plans to present his research findings at the New York State Sociology Association Conference. His initial hypothesis was that the divisions between the two groups stem from the dissemination of historical, ethnic, and cultural identification in exile. While he still stands by this hypothesis, it is interesting to note that a June 2008 protest that was planned in New York City challenges his hypothesis, since Haitians and Dominicans were able to come together in search of solidarity, but before it came to this point, there were instances of tension between the two immigrant groups.





## Arts

### Adventures in Scene Painting

**Candace Morrison, Jessica Colin, Amy Laemmerhirt, Tamara Strowger, Ashley Bobbett, Cordero King, and Christina Golab,**

THA 333: Scene Painting

Faculty Mentor: Professor Carol Beckley, Theater

Painting for theater is different than painting for a gallery. This class examines the techniques used to portray scenic elements while taking the audience's distance into account. Along with technique we are taught to accurately mix colors. Being able to re-create a color the designer wants is an advanced skill that every scenic artist needs. Other skills we are taught that are extremely important are efficiency and time management. Those two skills mark the difference between scene painting and gallery painting. We plan on showcasing our work that demonstrates what we learned in class, which will include: - wood grain/marble sample, which focuses on technique - wallpaper sample, which focuses on color mixing - architectural detail, which focuses on value - landscape, which focuses on technique - Master work, which brings it all together

**Presentation Type and Session:** Poster I

### Back in the Day: The Work of Advanced Costume Design

**Fausto Abreu, Melanie Derblich, Danielle Phillips, Zachary Serafin, Tamara Strowger, Leigha Weeks, and Amy Laemmerhirt,** THA 334: Costume Construction II

Faculty Mentor: Professor Ann Emo, Theater

The advanced costume design class took a semester to look at the play "A Flea In Her Ear" by Georges Feydeau. They researched many different time periods in which the play could take place based on the dialogue, plot, themes and characterization. They designed the costumes for each of these periods. Some periods researched and studied were the Victorian Era, the 1960's, and the 1980's. The class explored setting this play in different genres as well i.e. Grand Opera and Musical Theater. The result of their work is on display.

**Presentation Type and Session:** Poster III

### Body Casting

**Teri Drennan,** Ceramic Design and Art Education  
Faculty Mentor: Professor Robert Wood, Design

The human figure is used repeatedly throughout my work. I began using a mold making process as a way to take a direct impression of a human being. For me this direct

impression symbolizes the way we leave an impression on each other and the world around us. This grant is allowing me to experiment with different ways of making molds. The product I am using now is a two-part silicone rubber material that is skin safe, able to be applied in a more simplistic manner, will provide more accurate detail, and withstand repeated use. Although there are many advantages to using this material over the traditional method of casting in plaster there are many unknowns as to how it will work with clay. This process will provide a new understanding of how clay works with these silicone rubber materials.

**Presentation Type and Session:** Poster III

### Carpets: Not Just a Place to Wipe Your Feet

**Kim Jarrard,** HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

Carpets have played a significant role in people's lives throughout history. As with many textile items, carpets' significance varies from culture to culture. Whether their use is strictly practical or decorative, the importance cannot be ignored. The advancement of technology, diffusion of ideas through trade, and changing design styles is the cause for the evolution of carpet production and design. In my presentation, I am going to explore the history of carpet making around the globe, focusing on the civilizations where carpet making and the carpets themselves play an integral role in everyday life. I hope to gain and provide a better understanding of these works of art and how they were/are directly influenced by the people who create them.

**Presentation Type and Session:** Poster VI

### Chair: Historical Changes

**Irina Dyuzheva,** Interior Design  
Faculty Mentor: Professor Alissa D. de Wit-Paul, Interior Design

One of the most important pieces of furniture in residential and public spaces is the chair. We sit when we eat, when we watch TV, when we read. We also sit at meetings, waiting rooms etc. The history of the chair dates back in ancient times. Even nowadays it plays a major role when furnishing home or an office. The chairs of our predecessors were very simple in style and manufacturing. Mostly hand made. However, technological advances, use of new materials, and numerous influences of styles transformed the chair. We have chairs made of stone, wood, metal, glass, plastic, textile, and/or a mixing of multiple materials. And of course the chair evolved in to divans, armchairs, love seats, thrones, etc. From rags-to-riches. This presentation will take

you with images through the evolution of the chair. But please don't sit down!

**Presentation Type and Session:** Poster V

## **Clay Rocks: Manipulating an Outdoor Medium**

**Matthew Herrington**, Ceramic Design

Faculty Mentor: Professor Robert Wood, Design

I will be studying the qualities of clay and testing different clay bodies that can withstand outdoor weathering. My current artwork deals with environmentally influenced concepts. In order to display my ceramic works outdoors external conditions such as weathering can cause fired ceramic work to break down. I will be researching and developing clay bodies that can survive the effects of the weathering process, i.e. the freeze and thaw cycles. To make the clay body an outdoor clay body I will use saturation coefficient tests to calculate a correct clay body and firing temperature for the work. My work will contain different colorants that will be added to the clay mixing process to give it a sediment layered look. With a variety of tools and different working techniques I will create organic outdoor rock-like sculptures and will be studying how the composition of different clay bodies reacts to tension, heat, and textural manipulation. My body of work will include texture, colorant layers, glazes and organic elements to create aesthetically engaging work.

**Presentation Type and Session:** Poster IV

## **Creating Consciously: An Introduction to Sustainable Design**

**Cortney Morrison-Taylor**, Interior Design

Faculty Mentor: Professor Barry Yavener, Interior Design

Concerns surrounding population growth and steady consumption of non-renewable resources have spurred research into the relationship between humankind and the natural environment. In an effort to contribute to this cause, researchers in various areas of architecture and design have been working to generate environmentally friendly alternatives to outdated materials and production methods. The results of this research form the principals behind sustainable design. Over the course of the summer, I researched the evolution of sustainable building, and specific environmental conditions that stimulated its growth into the expansive field it is today. I then compiled several case studies of projects that have been constructed to be environmentally sound. I traveled to the building sites to photograph and to acquire first-hand knowledge of the sustainable principles employed by the designers. While I believe it is critical that designers and design students are aware of the importance of building green, it is equally imperative that the public be informed about the need to respect the environment we

inhabit. I assembled a PowerPoint presentation utilizing photos and data collected over the eight-week period of study. Other students in interior design courses can view this presentation.

**Presentation Type and Session:** Poster VII

## **Creation of a Collaborative Sculpture**

**Ian Carr**, Fine Arts

Faculty Mentor: Professor Kenneth Payne, Fine Arts

The main focus of the event was the combining of various elements to create a collaborative sculpture. I was able investigated the use of performance to blend elements of the traditional culture of Latvia with the process of casting iron to form a time driven work of art that simultaneously produced a collaborative permanent sculpture that was installed in Pedvale Open Air Museum. I work along side students from the Art Academy of Tallinn Estonia and was able to see how different their approach to the art making process was. Perhaps because they had more experience in Performance Art. I was able to document the event with still pictures and video showing the travel, the places we stayed, and the art we were creating. The blending of all these factors was of great interest to me. It has led me to think of incorporating aspects of New Media into my own work and to use the documentation I gathered to produce a four min movie on my computer. I incorporated an audio track that helps span the elements of time and performance and the creation of the castings that went into the mid summer event trip. I will set this up for people to view and talk about the interesting aspects of culture and people I came into contact with.

**Presentation Type and Session:** Poster V

## **Creatively Surviving the Cuts**

**Bethany Day**, Art History

Faculty Mentor: Professor Kathryn Leacock, History and Social Studies Education

The effects of the new budget cuts on cultural institutions have sparked much conversation about the fate of museums. Museums must find creative techniques to acquire stability while increasing funding. Through research and surveys, I hope to discover ways in which museums can maintain funds without losing integrity.

**Presentation Type and Session:** Poster VII

## **Decal and Screen Printing on Clay**

**Chad Pentoney**, Design (ceramics)

Faculty Mentor: Professor Robert Wood, Design

As a ceramics major that is focused on the functional object and it's use, I am intrigued with what glazes do on my forms and how layering glazes creates different visual effects. With this grant I am exploring the process of decal making and screen-printing

as a vehicle for transferring photographic images and words to my functional forms. I intend to experiment with glazes and colored slip application creating layers of images and text. I will be firing the decaled and screen-printed forms in all four of our different kiln firing processes; wood fired, soda, gas, and electric to see what happens in each atmosphere of the kiln.

**Presentation Type and Session:** Poster IV

## Designing a Multi-Use Space for the Buffalo State Community

**Hilary Salmon**, Communication Design

Faculty Mentor: Professor Stan Friesen, Design

I designed a multi-use space for the Buffalo State Community. I chose to redesign the main quad area of the campus between the Student Union and the Butler Library. I feel this space is under-utilized, uninviting, and therefore underused. I wanted to create a space with more seating areas where students would want to gather, where tours and classes could meet, and somewhere that was completely different than anywhere else on our campus. My project involved researching other community spaces, college campuses, as well as the individual elements needed to construct them. Then I planned my final concepts and created sketches. Finally, I modeled the plan in Lightwave, a 3D modeling and rendering software program. I will present prints of the existing space along with renderings of the redesigned areas, as well as a fly-through of the space in the form of a Quicktime movie.

**Presentation Type and Session:** Poster VI

## Designing Costumes for "Sour Lemons" Television Pilot

**Megan Westenfield**, HON 400: All College Honors Colloquium

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

What do two, goofy, twenty-something males wear on an everyday basis? What does the hot girl next door wear? And her creepy roommate? These were all questions I had to consider when designing and deciding what the cast of a local television pilot should wear. To coincide with the humor of the script, I designed costumes that emphasized the silliness of the characters, and worked well within a predetermined set. From dressing extras to designing David Bowie-esque band costumes, there were many bumps along the way. The final product may seem strange to some, but I see it as the culmination of my hard work and vision.

**Presentation Type and Session:**

Oral — Arts, Journalism, Health, and Social Sciences

## Effects of Aging Verdigris in Artist Prepared Paint

**Megan Berkey**, Art Conservation

Faculty Mentors: Professor Aaron Shugar and Ms. Katrina Bartlett, Conservator

**Note:** Complete Abstract in Physical Geography, Science, and Mathematics, p. 66

**Presentation Type and Session:** Poster IV

## Environmental Degradation vs. Artistic Intention: The Darkening of Lead Pigments on Japanese Woodblock Prints

**Christina Finlayson**, Art Conservation

Faculty Mentors: Professor Aaron Shugar, Art Conservation and Professor Judith Walsh, Art Conservation

**Note:** Complete Abstract in Physical Geography, Science, and Mathematics, p. 67

**Presentation Type and Session:** Poster III

## "Everyman" Set Design

**Fred Pascolini**, Theater

Faculty Mentor: Professor Carol Beckley, Theater

"Everyman" is a rich executive about to die. As he leaves our world he loses his earthly senses, and confronts the reality that his money won't save him - only his good deeds will. The set design represents our current economic situation that corporate greed has caused. The Bull of Wall Street measures Everyman's value on the big board as he is judged.

**Presentation Type and Session:** Poster V

## Explorations in Devore, Weaving and Dyeing

**Tegan E. Ford**, Design (fiber)

Faculty Mentor: Professor Jozef Bajus, Design

Through the development of making three individual pieces, I will explore how color and texture can be manipulated in a hand-woven piece using devore, dyes and embroidery. Each work produced will develop into the next, resulting in a final piece which utilizes all that is learned. The first work is a woven piece that uses two different types of fiber, each taking up dyes differently due to their chemical makeup. The second is a velvet devore piece, where I will learn how the technique is used to develop positive and negative space in a fabric. The final work uses all that is learned from the previous projects to create a hand-woven devore piece that will incorporate embroidery as a three dimensional element. I choose to use weaving as my medium because of its flexibility. The types of materials used and how they are treated can effect how colors and textures develop. I hope that my audience will see the versatility in weaving that I do: to witness the depth that can be created through simple manipulation of color and materials.

**Presentation Type and Session:** Poster II

## **Fishing for an Alternative to the Traditional Source of Isinglass: Preliminary Investigations**

**Eileen Sullivan**, Art Conservation

Faculty Mentors: Professor Aaron Shugar, Art Conservation and Professor James Hamm, Art Conservation

**Note:** Complete Abstract in Physical Geography, Science, and Mathematics, p. 67

**Presentation Type and Session:** Poster III

## **Glaze Craze**

**Morgan Meheran**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Robert Wood, Design and Professor Andrea Guiati, Director, All College Honors Program

Within ceramics one must not only consider the design and structure of a piece, but also the surface treatment. Through the research of the ingredients used in glazes and their function I will develop my own ceramic glaze. After creating a base glaze formula, tests can be run wherein the percentages of each ingredient is changed to see its effect on the glaze surface. An analysis of these results will then allow for a range of glaze surfaces from which one glaze will be picked. To that glaze different coloring oxides will be added for color. The final glaze will be utilized on one of my own ceramic pieces.

**Presentation Type and Session:** Poster VI

## **How Can Color Affect You?**

**Amanda Hamlin**, HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

Color has always been an interest to me, whether it is choosing a paint color for a wall or describing to a client what colors will attract consumers in a retail scenario. Color plays a very important part in every aspect of our life. Color brings about different experiences in people. For example, the color red is seen differently by men and women, thus giving them a different experience in the same red space. Interestingly enough, color affects even the smallest things such as our appetite. Because people spend a majority of their time during the day indoors, I decided to focus my research on the recommended colors for different rooms, especially in residential spaces, as well as the colors not recommended in certain places because of the experiences they provoke. Overall, the world is full of color and because of color, each one of us is given a different experience within the interiors of a space. It is the role of a designer to make sure that that experience is a positive one.

**Presentation Type and Session:** Poster I

## **If Music Be the Food of Love: Dramaturgy For "Twelfth Night" or What You Will**

**Melanie Derblich**, Theater

Faculty Mentor: Professor Donn Youngstrom, Theater

Dramaturgy is an important part of the process of realizing the director's concept in putting on a particular play. Dramaturgy researches not only the background of the playwright and the play but also the time period in which the play was written and/or set. It is important for the director, designers and performers to be aware of the conventions of the time periods involved. Dramaturgy also includes an analysis of the plot and the major characters. It is a very detailed and time-consuming process that informs the actors' work on stage. The task of acting as dramaturge for "Twelfth Night" by William Shakespeare in this instance was two-fold: research of the play and when it was written; research for the setting, as the director and designers chose to move the play from the Dalmatian coast of Illyria of the early 17th Century to the pirate world of the Caribbean of the 18th Century. Differentiating between the real world of the buccaneers and the more romantic image created by 20th Century Illustrators like Howard Pyle and N.C. Wyeth that would serve as a template for a more 1940's "Hollywood" version was also part of my task as dramaturge.

**Presentation Type and Session:** Poster V

## **Ikat Study and Experiments**

**Diane Meyer**, Textile Design Technologies

Faculty Mentor: Professor Jozef Bajus, Design

I recently learned how to weave three different types of Ikats: warp, weft, and double. Ikat is a very complex technique that requires very precise thread counting and the warp needs to be carefully measured according to the specifications required by your design. The beginning of the process included preparing designs for my weavings. For this, I made several 8x8" paintings. Next, I prepared the warp design for each painting. An interesting part of the process involved stretching the warp on the table, painting the warp with dyes, and drying the warp. It is very important to keep the same tension of the warp threads and the painted design needs to match the painted weft section. Next, I dressed the loom and started to weave my first warp design using a simple plain weave structure. I experimented with weft designs prepared on a separate wooden frame. This was another challenge I faced, because the space in between the nails needs to be specifically determined on the width of the warp design weaving. In the beginning my warp and weft designs didn't match very well and it was necessary to make adjustments. With time, I learned how to deal with the technical problems. Throughout the



entire process I developed my weaving skills and improved my craftsmanship and presentation of the projects. Most importantly, I learned how to express my ideas using the Ikat technique. I have created ten samples - experimental pieces and from those developed several final pieces.

**Presentation Type and Session:** Poster III

## The Influence of Feng Shui on Interior Design

**Michele Lange**, HON 400: All College Honors Colloquium

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

Many individuals don't understand what interior design is, much less how it affects their daily lives. My study is intended to better understand the influence of Feng Shui principles on interior design and in particular, the origins and laws of Feng Shui. I will also examine the benefits of these principles in everyday life as well as the simplicity of achieving these rules. After all, it's the simple things in life that really make a difference.

**Presentation Type and Session:** Poster Session VIII

## Inside the Cell-Treasure?

**Dorothy Rapp**, Design

Faculty Mentor: Professor Stephen Saracino, Design

I am a biologist and have had a long career as a cancer research scientist. For this project, I sought to bring this life experience to my work as a metalsmith/jeweler, interpreting the natural world at the cellular level rather than whole animals or plants commonly seen in jewelry objects. My designs are abstractions of subcellular structures as seen under microscopes at various magnifications; they are presented out of their natural context in the overall design and in abnormal combinations, on an unnatural scale. As an example of my ideas, one piece I selected to display is a pin with a mitochondrion as the primary resource. It is fabricated from planes of titanium recalling the organelle as seen in serial tissue sections, and inviting the viewer to look deep into its interior. Kinetic fronds of monofilament radiate from its perimeter, representing exaggerated cilia - the motile arms of some types of cells that need the energy manufactured by mitochondria in order to function. This abnormal juxtaposition and contrast between the rigidity of the metal and fluidity of monofilament is harmonized by color and iridescence. I aim to invite curiosity about content in my work beyond immediate visual appeal.

**Presentation Type and Session:** Poster III

## Inside the Lives of Dancers

**Marissa Gibbons**, Communication

Faculty Mentor: Professor Tim O'Shei, Communication

**Note:** Complete Abstract in Health, Wellness and Safety, p. 54

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

## Intimate Objects

**Anthea Iatridis**, Design (metals/jewelry)

Faculty Mentor: Professor Tara Nahabetian, Design

The Torpedo Factory Art Center is a body of 165 resident artists, working in 82 artists' studios that are open to the public. Accompanying the studios are several galleries, one being the Target Gallery, which produces nine annual shows from a variety of national and international artists. These shows are either juried or curated, but in each show there is a specific theme. The juried exhibition "5x5x(5)" displayed 250 intimate objects. Each piece accepted into the show was no larger than five inches in any dimension, and consisted of two and three-dimensional pieces. Two of my pieces were selected for the exhibition from a series of three bracelets. These bracelets contrast the idea of "man-made" materials and the earth. While at the Art Center, I visited several of the artist's studios to speak with them about the details of their work. At the opening of 5x5x(5), I was introduced to the main juror, Elaine Levin; a contemporary art curator, art historian, guest lecturer, and widely published writer. Through slides I will share my visit to the 5x5x(5) exhibition, including the Torpedo Factory Art Center and my bracelets "Man-made Earth 2" and "Man-made Earth 3".

**Presentation Type and Session:** Poster II

## Japanese Style Miniature Wood Burning Kiln

**Sumiyo Roland**, Design (ceramics)

Faculty Mentor: Professor Stanley Panetski, Design

There were three goals in my undergraduate summer research project on building miniature wood burning kilns: finding an appropriate clay for building a miniature kiln, finding an appropriate clay for making the pieces to be fired in the kiln, and finding the best design for the miniature kiln. I created test clays for the miniature kiln and for the pieces to be wood fired, consulting with my mentor. I created pieces for wood firing and six miniature kilns by using the appropriate clays I found. I accomplished the following tests and creations: 1. Tests: Paper Kiln (equivalent of bisque firing) tests, Direct Heat (Resistance) tests, and Firing tests. Direct Heat (Resistance) tests were performed to verify that the clay was appropriate for the miniature kiln. 2. Creations: Clays for building the miniature

kiln, clays for making pieces to be fired. The range of size of the miniature kilns I made were between 15" (w) x 8" (d) x 15" (h) and 20" (w) x 20" (d) x 25" (h). The paper kiln (equivalent to bisque firing) and firing tests failed several times. In the final test, I modified a kiln that had originally failed the first time I tested it. I enlarged the holes between the fire box and the chamber to get more air circulation and did two hours testing rather than a full firing test. Two hours after I started, the temperature reached 1500 F, indicating a successful result because it was almost the same result as described in my earliest resource of research. The big difference between a regular (large) wood firing kiln and miniature kiln is miniature kiln takes short time to fire pieces. In my presentation, I will explain what I did and show the actual miniature kilns and pieces from my testing.

**Presentation Type and Session:** Poster II

### **The Journey Through Eastern Europe**

**Lindsey Brown**, Fine Arts (sculpture)

Faculty Mentor: Professor Kenneth Payne, Fine Arts

My presentation will present my summer 2008 sculpture project at Pedvale Open Air Museum in Latvia. Information about the event will be presented in poster form, along with a slide show of pictures on a laptop. The theme of this season in the sculpture park was time and stone. The collaborative piece I did was a repetitive geometric shape in iron that extended into space and ended with no visible extension to the ground the arc was completed visually in a stone pile arcing up from the other direction. The concept behind the piece is about the past, present, and what is to come in the future. We worked alongside students from Estonia and Latvia, as well as professional artists from both countries. In working with these students we were able to discover their approach to the creative process and how it differs from what we are taught in America. Not only working with these students, but communicating on a personal level educated me on several different levels. Exchanging different information about our families, our governments, our way of life is an experience that has influenced me to investigate other cultures for inspiration in my artwork. This experience has been essential in putting me on a new path in my work as a young artist I am now trying to incorporate elements of repetition in a new conceptual way.

**Presentation Type and Session:** Poster V

### **Landscapes of Thought: A Surrealistic Approach to the Complex Emotions of Nostalgia and Melancholy**

**Brian Nacov**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Joseph Miller, Fine Arts and Professor Andrea Guiati, Director, All College Honors Program

While nostalgia and melancholy are definable by most people, they remain rather difficult to express verbally. They can be manifested in a multitude of ways depending on the individual displaying them. During my two years of attending college both of these emotions came to me in waves, breaking on the shore of my consciousness. In the spring and summer I became obsessed with the otherworldly images that I daydreamed of in high school. Scenes of imaginary realms where I felt one could be carefree amongst the colors of the atmosphere and calming yet alien landscape. While during the cold Buffalo winters I slipped in and out of depression, searching desperately for something I thought I lost in my past that would bring happiness back to me. This psychological turmoil manifested itself in two paintings, each dealing with its own emotional state. Two landscapes where recognizable elements just barely connect them to reality while the others transport the viewer into a complicated world. One that shows an individual's personal, visual interpretation of feelings that are within all of us. Feelings that both transport us back to our happiest times and unearth our most doleful memories.

**Presentation Type and Session:** Poster I

### **Latvian Travels-Sculptures From Creative Minds**

**Todd Nowak**, Art Education

Faculty Mentor: Professor Kenneth Payne, Fine Arts

I participated in a sculptural event that centered around mid-summer night. This is the biggest celebration on the Latvian calendar. This event is organized by Ojars Feldsberg a Latvian Sculptor and owner of Pedvale Open Air Museum, a sculpture Park in Latvia. The event mixes traditional cultural and ancient religious elements with issues in contemporary "land Art" sculpture I worked for two weeks to develop collaborative sculpture based on the parks theme "Stone and Time" The performance started when a large stone of approximately 1500# was taken in a processional and put on a funeral pyre over an open pit. As the fire burned the stone dropped into the "grave" and was buried the next morning. A torch was lit off of the "funeral" fire and taken by the same processional to the furnace for a ceremonial lighting. Then the furnace was used to pour the iron sculptures, four in all including our work. The first piece poured was a #2000 copy of the buried stone representing a rebirth of the stone. Our sculpture was later mounted in the park. It represents a stone moving through space and time frozen in an arcing spiral gesture. While I am still processing the impact of this event on my own work it has already affected my view of the nature of art and its creation and will certainly affect my teaching of art.

**Presentation Type and Session:** Poster V

## Making Men's Hats

**Jessica Colin**, Theater

Faculty Mentor: Professor Ann Emo, Theater

What started out as research for the costume design for Casting Hall's spring production of "The Grapes of Wrath", evolved into a hands-on project working with 'The Custom Hatter', Gary White. Mr. White is a local professional hat maker whose credits include numerous Hollywood movies and Broadway productions. For this project I documented my time shadowing Mr. White in his Buffalo Studio as he took me through the process of designing and constructing men's hats. We restored damaged hats, distressed others and adapted some as well. This project culminates in the full construction of a hat to my own specifications.

**Presentation Type and Session:** Poster II

## Matryoshka, Meet Filigree

**Vincent Pontillo**, Design (metals/jewelry)

Faculty Mentor: Professor Tara Nahabetian, Design

In metal object making, I am attracted to utilizing cultural symbols, figuratively or abstractly within a piece. Historical and religious symbols have shaped the foundation of culture and design. In an anthropological structure, the symbol is used as a catalyst for object creation. From the early 1600s to the Czarist era of Alexander III, filigree and the Matryoshka doll have been substantial figures in Russia. The Matryoshka doll (commonly referred to as the Russian nested doll, or stacking doll) carries many layers, metaphorically and literally, relating to the Russian household and culture. The technical definition of filigree is derived from the Latin term "filum", which is a reference to "thread". Culminated, I use this research to develop a culturally contextual, contemporary designed piece. The result for this project was the creation of a piece in which I utilized traditional Russian patterning through multiple metalsmithing techniques. During this presentation, I will show a slide show on fabrication, the piece itself, as well as my research on Russian artifacts.

**Presentation Type and Session:** Poster III

## Metal-tini: Jewelers and Martini Glasses

**Vincent Pontillo**, Design (metals/jewelry)

Faculty Mentor: Professor Tara Nahabetian, Design

For the seventh year of this exhibition, Andrew Zaruba invited 50 artists out of over 500 applicants nationally to participate in "Art of the Martini" held at Zaruba & Zaruba in Frederick, Maryland. I was able to attend the opening of this event, which is a month long art exhibition held in celebration of the iconic

"martini". The participating artists, including many of the country's leading metalsmiths, created their own original piece from one common media; a stainless steel martini glass. This show celebrates unique interpretations of various artists, all beginning with the concept of the iconic martini. All techniques were welcome, as long as the artist incorporated the supplied martini glass into their final work. Some artists chose to idolize the martini, building forms on and around the glass. I chose to manipulate the glass by deconstructing the original form. After each section was redesigned, they were connected to form a single necklace. During the presentation, I will display a slideshow of these distinct works, as well as my own "Pomegranate Martini".

**Presentation Type and Session:** Poster IV

## Mokume Gane

**Anthea Iatridis**, Design (metals/jewelry)

Faculty Mentor: Professor Tara Nahabetian, Design

This presentation will reflect my research of the traditional techniques of Japanese woodworking and metalsmithing. During my research I found Mokume Gane, a metalsmithing technique that was derived from Gori Bori, a wood working technique. The literal meaning of Mokume Gane translated from Japanese is "eye of the wood grain metal". This is a process of fusing between 18 and 24 layers of alternating metals together and forging it thinner. When the metal is forged to 90% of its final thickness the craftsman can begin to alternate the carving process with forging until the right thickness and pattern is achieved. Gori Bori is a very similar process to Mokume Gane but is a traditional Japanese wood working technique. This process begins with several layers of natural lacquer that strengthens the wood. In conclusion, I created a neck collar combining Mokume Gane and wood that resembles Gori Bori.

**Presentation Type and Session:** Poster IV

## Niche: Progressing Students and Professionals

**Vincent Pontillo**, Design (metals/jewelry)

Faculty Mentor: Professor Stephan Saracino, Design

Published by The Rosen Group, Niche ("neesh") Magazine was founded for the purpose of connecting art galleries and craft retailers with the finest wholesale crafts, handmade gifts and decorative art objects made in artist studios throughout the United States and Canada. Sponsored by Niche Magazine, the annual Niche Awards competition celebrates excellence and innovation in American and Canadian craft. Artists are recognized in professional and student divisions, undergraduate and graduate. For the 2009 Student Niche Awards, jurors selected 69 finalists out

of nearly 900 entries in 14 categories. All entries were reviewed by the editors of *Niche* and *AmericanStyle* magazines and staff of the Buyers Market of American Craft. These entries were judged on technical excellence and creativity. This past February, I had the honor of attending the Niche Awards Ceremony for my work entitled “Pomegranate Seed”, which was one of five finalists in the Metal/Non-Wearable/Sculptural category. The Awards Ceremony took place during the Philadelphia Buyers Market of American Craft, held at the Pennsylvania Convention Center, Philadelphia, PA. During this presentation, I will show a slide show of the BMAC, supportive Niche materials, as well as my work, “Pomegranate Seed”.

**Presentation Type and Session:** Poster II

## The Portfolio of a Theater Design Student

**Amy Laemmerhirt**, Theater

Faculty Mentor: Professor Carol Beckley, Theater

This presentation is the culmination of my work as a design student throughout my years as a theater major. This work was recently shown at the URTA auditions in New York City and represents my design views. Work and designs from my set design, costume design, and lighting design courses will be on display. The work shown shows my growth as a designer and also illustrates the design process.

**Presentation Type and Session:** Poster III

## Potters Wellness: An Exploration of Stretches and Exercises to Prevent Injury

**Chad Pentoney**, Design (ceramics)

Faculty Mentor: Professor Robert Wood, Design

**Note:** Complete Abstract in *Health, Wellness and Safety*, p. 55

**Presentation Type and Session:** Poster I

## The Role of Static Charge in Dirt Accumulation on Paintings

**Jamie Abbott**, Chemistry

Faculty Mentor: Professor Gregory Smith, Art Conservation

**Note:** Complete Abstract in *Physical Geography, Science, and Mathematics*, p. 73

**Presentation Type and Session:** Oral – Sciences

## The Search for a Refractory Castable Claybody

**Matthew Hill**, Design (ceramic) and Art Education

Faculty Mentors: Professor Robert Wood, Design and Professor Stanley Panetski, Design

During my summer research fellowship, I was on a journey to discover a claybody using refractory castable cement. I researched the process of making Hypertufa (which is a technique of adding

a variety of lightweight aggregates to a curing substance, like cement, to provide mass and structure, but not weight) in order to create a lighter weight, stronger and more versatile medium to use for outdoor clay sculptures. Weight is an important factor that must be taken into consideration when creating, and more importantly transporting, large scale sculptures. The purpose of using high temperature materials (refractory cement) instead of typical cement is to create a sculptural body that is more versatile in terms of finishing methods and techniques than is capable with normal cement. Through my research, I tested many different combinations of materials, aggregates and clays, along with a range of constructive methods, yielding positive, or at least enlightening characteristic from all materials. I concluded that the application of the research to small-scale work is possible but not viable for large-scale work. I plan to present my results with a series of photos showing the results from the research.

**Presentation Type and Session:** Poster V

## Set Design

**Ashley Bobbett** and **Jason Klinger**, THA 337: Set Design

Faculty Mentor: Professor Carol Beckley, Theater

In set design class we learned basic set design skills, starting with the elements of design: line, shape/form, mass, color, and texture. We learned about the different types of theater spaces such as the proscenium, arena, thrust, and the flexible theater. The set design process involves reading and analyzing the script, meeting with the director and design team, research and sketching, then models and drawings. Our first script was “Uncle Bill’s Will” a simple play about finding buried treasure. Each of us had our own interpretation of a pirate ship and the Golden Island presented in a white model. “Everyman” is a 15th century play about morality. For that assignment we had to do a modern version including how we view the “everyman” of today. We did this project in color and used a variety of materials to bring the set to life. Our third project involved a period style. It was for either “Dracula” or a play of our choice. Our designs are presented in model boxes made of foam core board. The time, place, mood, theme, and action of the play are all considered when developing a design. Visual communication to the director happens through research boards, sketches and model boxes. On display are examples of our work from class.

**Presentation Type and Session:** Poster II

## Steampunk Metal Adornments

**John Harris**, Jewelry Design and Anthropology

Faculty Mentor: Professor Stephen Saracino, Design

Through my studies, experiments, and research I hope to discover the trends and priorities within the subculture of



Steampunk. Steampunk is a subculture based primarily on influences from the nineteenth century steam-powered machines combined with Victorian aesthetics. Commonly, Steampunk metal adornments (which includes jewelry, but also includes glasses, hats, and shoes) use strategically-placed gears, as well as intricate Victorian filigree work. Trends in Steampunk adornments and accessories seem not to follow logical patterns, and because of this I hope to discover them and experiment with them, as well as attempt to master some techniques applied by Steampunk designers.

**Presentation Type and Session:** Poster III

## **A Strong Foundation: Undergarments of the Victorian and Edwardian Periods**

**Jennifer Maynulet**, Fine Arts

Faculty Mentor: Professor Ann Emo, Theater

I began my study of foundation garments of the Victorian and Edwardian ages in an independent study of period costume construction last semester. One of the things I found fascinating was how the general culture of a time and place is reflected in its clothing. This is something easier to see in time periods far from our own, but still holds true today. I studied how the change in silhouettes between the Victorian and Edwardian periods and into the modern period is a direct reflection of the political, social, and technological shifts going on during that time. In addition to researching period undergarments, I am also in the process of constructing a genuine reproduction of an 1880s Victorian corset.

**Presentation Type and Session:** Poster I

## **Zombie Loves Vampire: Short Film**

**Klinger Jason**, Theater

Faculty Mentor: Professor Carol Beckley, Theater

Zombie Loves Vampire is a student produced short film. Shot over the course of two weeks in February followed by editing, the film represents the culmination of three years of work. My presentation will include a screening of the first cut of the film on Friday May 1st in Rockwell Hall at 8pm. Following the film, I'll be requesting your feedback as the test audience followed by a Q & A with me (the writer/director/editor/producer). Also - production notes, the script, storyboards, & post-production/ marketing packets will be on display and available for people to go over if they so choose. I am hoping all the supplemental materials will show the amount of work that goes into making a piece of cinema, regardless of its content, budget, or length.

**Presentation Type and Session:**

Rockwell Hall, 8 p.m., Friday, May 1

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## ***Business and Technology***

### **Advantages of Prototyping With SolidWorks**

**Steven Wilson**, Mechanical Engineering Technology  
Faculty Mentor: Professor James Mayrose, Technology

Rapid prototyping provides many advantages to the design process. SolidWorks allows a user to create 3D representations of the object they are trying to produce, and allows easy corrections if any problems or errors are found. In ENT 314, Solid Modeling, we were given the opportunity to design parts and products using the SolidWorks 3D design software. One part was a gear box which was an assembly of multiple parts while the assembly looked fine on the screen the holes of the gear box, when printed using the rapid prototyping machine, were too small to allow the other components to be assembled. Having the opportunity to prototype my own designs and see the benefits first hand, gave me the idea to obtain additional information and use it to help others learn the benefits of prototyping their designs first, prior to having them produced. I will be talking about how prototyping is better for designing and figuring out what works and does not work before having the design produced; how SolidWorks is easy to use and how simple it is to make changes.

**Presentation Type and Session:** Poster VIII

### **Air Bearing Development for High Speed Centrifugal Compressor Application**

**Amauris Rodriguez** and **Shawn Kibler**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Cameron, a local company headquartered in Houston, is a leading provider of flow equipment products, systems and services to worldwide oil, gas and process industries. The Centrifugal Compression division of the Compression Systems group provides compression equipment and systems to these industries. Pinion shafts in Cameron's centrifugal compressors utilize tilting pad bearing assemblies to handle radial loads and thrust bearings to deal with axial loads. These bearings are proven to be effective at handling high loads, reducing vibrations and increasing stability at high speeds. This current technology needs oil to lubricate and cool the moving parts. Using oil to lubricate these bearings requires the presence of oil seals that can fail, causing process gas contamination. The goal of this project is to develop a bearing for a pinion shaft that uses air as its lubricating fluid; it should be able to handle radial unbalanced loads up to seven pounds, and axial loads up to 500 pounds. Two methods of creating an air film are using a porous media or a pocket compensated air delivery port to evenly distribute air across the moving surface. Prototypes

of each design will be produced and tested for load capacity and speed limitations.

**Presentation Type and Session:** Poster VIII

### **Apparatus for Performing Automated Pressure Decay Leak Testing**

**David Siembida**, **Jeffrey Przepasniak**, and **Danny Kalonda**, ENT 465: Electrical Design

Faculty Mentor: Professor D. Steven Barker, Technology

Our ENT465 Electrical Design Capstone project team developed an apparatus to implement an automated pressure decay leak test system. There were two main objectives of the project. The first was to demonstrate our knowledge and skills by the planning, design and realization of the apparatus. This was done by utilizing mechanical, pneumatic, electronic and software components to implement an automatic test system. The second objective was to research and explore the analytical capabilities of National Instruments Labview software in an effort to find creative ways that a user could investigate the apparatus. Many products require sealing which stops the transference of gaseous, liquid or solid materials into or out of the product. After visual inspection, one of the simplest and least expensive leak detection methods is to use a change (decay) of pressure over time to determine a leak rate due the loss or gain of gas particles. The typical user requires performance features such as short cycle times, precise measurements, repeatable readings and the need to be cost effective. The various characteristics that make pressure decay testing attractive can also limit the ability to enhance its performance. This contradiction provides opportunities for the development of creative solutions.

**Presentation Type and Session:**

Oral – Business and Technology

### **Automated Temperature Control Chamber**

**Andres Velez**, **Leonard Wizner**, **Gregory Maciejewski**, and **Nicholas Winkowski**, ENT 465: Electrical Design

Faculty Mentor: Professor D. Steven Barker, Technology

We are designing, building and testing an automated temperature-controlled chamber that can be used by others to analyze and stress test electrical components. The main objective of this project is to create a system that controls and monitors the air temperature inside of a sealed chamber utilizing a temperature-control integrated circuit. The thermal chamber will be designed, constructed, tested and its performance characteristics will be measured over the temperature range of 50 to 120 degrees Fahrenheit. The integrated circuit will be tested and its performance characteristics will be monitored and recorded over the specified temperature range. Heat transfer will be accomplished through thermoelectric cooling and heating.

LabVIEW computer programs are being developed to provide the control and monitor functions. Electrical interfaces between the LabVIEW programs and thermoelectric control circuits will utilize existing cables provided by National Instruments.

**Presentation Type and Session:** Poster VII

### The Business Intelligence Diet

**Ken Lockwood**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

The term Business Intelligence (BI) refers to a marketing software architecture that enhances the decision-making ability of stakeholders at each level of the business. The idea of BI, formerly referred to as Decision Support Systems, has been around for almost 40 years. The driving force for BI solutions is the need for stronger analytics and effective communication of timely, relevant information that enables key decision makers to improve revenue and profit contribution. BI solutions offer a wide range of functionality including forecasting, heat maps, promotion performance, and the visibility of profitability in specified sectors of the business. This project focuses on the components that make up the BI architecture from the perspective of the Seneca Gaming Corporation which will invest over 2.7 million dollars in the project and enlist the services of multiple integration vendors including project managers and analysts, database administrators, application developers, data quality analysts and data mining experts. BI projects are extremely time consuming, expensive, and prone to failure if not properly managed. The purpose of this project will be to extract key concepts from this large installation and develop a methodology that can be applied to a local jewelry retail company operating on a shoestring budget.

**Presentation Type and Session:**

Oral – Business and Technology

### Cheap or Chic? Preference for Outlet Malls vs. Retail Malls

**Rachael Melson, Randi Schwartz, Rebecca Waterbury, and Margaret Willis**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Currently the economic condition in the country is not good. People are losing their jobs. Consumers are cutting back on their spending on food, clothing and dining. Outlet malls tend to be cheaper than stores in regular malls. We will be studying consumers in the Buffalo-Niagara region and will be using qualitative and quantitative questions. Our questionnaire will cover issues on whether consumers will pay full-price for the current season goods or buy through outlet malls for merchandise that may be either be from last season or slightly defective. The objective of this study is to understand consumer shopping decisions between regular malls and outlet malls in hard times

and to find out how consumers are modifying their buying patterns. We will ask random shoppers in both types of malls to fill out a short survey. This study is in progress.

**Presentation Type and Session:** Poster I

### Chinese Culture and Business Practices

**William Logan**, Hospitality and Tourism, **Jonathan Castillo**, Business Administration, and **Quintarra Lee**, Business Administration

Faculty Mentor: Professor Christine Lai, Business

In January 2009, a group of Buffalo State College students traveled to Beijing China for an educational and cultural experience. The objectives of this experience were to: i) Develop intercultural awareness and competence through reflection on the experience of living and studying abroad ii) Enhance key transferable skills through the managing of learning in an independent and taught context, learning with others, problem-solving and maintaining a reflective journal iii) Gain in personal development through residence and studying abroad, and then transfer the skills acquired to both academic work and future vocational work iv) Gain wider knowledge and understanding, and embrace different academic methodologies in various subject areas through taking classes in an education institution abroad. Subject areas include Chinese taxation, culture, economy, and current issues. Cultural sites include Tian An Men Square, the Forbidden City, the Great Wall, and the Summer Palace. Organizational visits include Beijing Hyundai, Zhongguancun “Z” Park, and the American Chamber of Commerce in Beijing.

**Presentation Type and Session:**

Oral – Business and Technology

### Coating Evaluation

**Caleb Hamlin and Paul Schwab**, ENT 422: Machine Design II

Faculty Mentors: Professor Mohan Devgun, Technology and Professor David Kukulka, Technology

This study is undertaken to evaluate protective coatings on various surfaces. The paint film test methods and the falling sand tests that are widely used to test the coatings on materials do not provide useful data for the rubbery, elastomeric silicone-based coatings. Test procedures that use brushes also fall short in that they tend to evaluate only the outermost aspects of a coating surface. The rotating brush abrasion and wear test developed in our laboratory has been proven to overcome the shortcomings of the generally accepted paint film test methods. Nylon bristle brushes will be fixed to a rotating wheel that is positioned below a test piece with the test coating on it. The test piece will be loaded with a mass of 290g to create a static pressure of ~40psi. The brushes will then move through a reservoir containing fresh water or salt water before moving across the surface of the test piece at a rate of 200 brush strokes per second. The removed

coating fragments will collect at the bottom of the water reservoir for later analysis. The coatings will be evaluated after 20,000, 50,000, 90,000, and 145,000 strokes. A water jet test will also be performed. A water jet will be set up with cold and hot water, from 3 in and 12 in, and from 90 deg and 45 deg angle of attack. The water test result will be analyzed in a similar fashion to that of the nylon bristle brush test. Photos will be taken to show the affects of the testing. Surface roughness calculations will also be made for each of the cases.

**Presentation Type and Session:** Poster VIII

### Data Mining and Homeland Security

**Philip Overton**, Computer Information Systems and **Marion Bryant**, Computer Information Systems

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The purpose of this research is to investigate the effective uses and benefits of data mining application techniques used for homeland security and the ethical issues that emerge from such data mining usage. The Government can often find value in mining various data to stop terrorism or prevent crime. Data mining is a powerful tool that can help the government discover important information about terrorism or novel patterns about crime by mining through a large amount of data. With software like Data Miner, Clementine, and Tanagra patterns in data can be discovered like finding trends in terrorism by mining communication data like phone logs, mail logs, and internet server logs. By finding patterns that appear often in certain events and by using data mining software, one can predict possible trends that happen in crimes, terrorist attacks, and other events that can harm the American people. However, ethical issues arise as more and more American's feel their personal space is being invaded without any prior knowledge. Is mining personal data the perfect tool to protect the homeland? Or are we sacrificing too much in the name of safety? Our presentation will be focused on actual case based results involving government data mining and its successful or unsuccessful outcomes.

**Presentation Type and Session:** Poster VIII

### A Demonstration of Wireless Electrical-Energy Transfer Using a Tesla Coil

**Cordero King**, **Hugo Pineda**, and **Christopher Fowler**, ENT 465: Electrical Design

Faculty Mentor: Professor D. Steven Barker, Technology

Engineer and scientist Nikola Tesla once had a vision of providing free wireless electricity to all nations through magnifying transmitters. The Wardenclyffe Tower in Long Island, NY would have been the first transmitter, but was abandoned and ultimately destroyed due to loss of funding. A Tesla coil can transmit wireless electrical energy through electromagnetic

radiation. The intent of our project is to renew an interest in Tesla's experiment through a real demonstration of wireless energy transfer, using a Tesla coil that we will design, build, and test. Measurements of energy transfer as a function of separation and power as a function of output voltage are the primary methods of evaluation. Quantitative measurements of voltage and current will be used to measure power transmission. During the presentation, various light bulbs will be illuminated by the Tesla Coil as a real demonstration of wireless electrical energy transfer. Since a live demonstration is anticipated for the Student Research Creativity Celebration audience, several levels of safety measures will be implemented. These measures include a Faraday cage to protect the team and viewers, a discussion on safety procedures, and the loaning of safety goggles to spectators.

**Presentation Type and Session:** Poster VII

### Design of a Solar Water Heating Panel

**Caleb Hamlin** and **Paul Schwab**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Rigidized Metals is a local manufacturer and world-wide leader in the development and production of textured three dimensional metals. The focus of this project is on the design of a solar water heater with the intended use on residential households, commercial buildings, or for swimming pool heating. Since units of this type have been on the market for many years, Rigidized has given this group the challenge of designing and testing key components of a Solar Water Heating Panel. Currently typical standards for units of this type use a single pane of low-iron glass, both copper or aluminum flat panel absorber plates and copper tubing for water storage. Copper is a common material used because of its physical properties. It contains a very high solar absorptive quality with a very low emissive quality. This project will test several of Rigidized textured metals to be used in the absorber plate designs. Textured surfaces offer an increased surface area that should increase the solar absorption while decreasing the materials emissive property. Selective coatings will also be used to enhance these qualities. Different riser designs will be explored with concentration on the material used and tubing circuits. The main goal is to produce a Solar Water Heating Panel that has the best performance and a reasonable cost to manufacture. Constraints that will be encountered in developing a design are the size of the unit, its cost, and material compatibility. The selected approach is to design an Aluminum textured unit that will perform at a high standard and offset the high cost of a Copper based design.

**Presentation Type and Session:** Poster VI



## **Development of a Metal Rolling Lathe for Production**

**Daniel Adamchick**, INT 689: Research Methods  
Faculty Mentor: Professor John Earshen, Technology

Enidine, a manufacturer of shock absorbers, seeks to upgrade its standard shock absorber models in a nickel-plated finish. Initially, the company obtained nickel-plated cylinders from a local vendor; these cylinders performed within specification but were relatively expensive. When these cylinders were outsourced to China, problems occurred and cracks in the plating appeared. These cracks formed during the crimping process (the final step in assembly). A post-crimping inspection revealed a lack of adhesion causing the nickel plating to flake off. A solution was sought to prevent the cracking the more delicate plating of these less expensive imported cylinders. Instead of crimping the cylinders, a method called “rolling” was attempted; rolling was thought to be a better method due to the lower stress that it imparts on the metal. A series of trial runs showed that rolling worked successfully without cracking the nickel plating. However, the process was time-intensive and produced inconsistent parts. Additionally, to meet demand, a faster production method was needed. This project addressed the need to produce a consistent result using an automated rolling lathe. Success was achieved by designing and constructing a unique CNC lathe. A retrospective case study of this scenario is presented with recommendations for further improvements to the process.

**Presentation Type and Session:**  
Oral – Business and Technology

## **Driving Green With Biodiesel**

**Alex Hubert**, Mechanical Engineering Technology  
Faculty Mentor: Professor James Mayrose, Technology

The major technical challenge of this research project was the development of a biodiesel processor to convert waste vegetable oil from restaurants into usable diesel fuel. This biodiesel processor is a demonstration project that will eventually become part of a new Alternative Energy Club we are beginning to develop here at Buffalo State College. We developed small batches of biodiesel from three different oils namely; Soybean, Canola, and Waste Vegetable Oil (WVO). Through titration testing, we found that the pure soybean and canola oils produced more usable fuel than the waste vegetable oil although WVO was the less expensive option. The cost of the WVO was also cheaper than a gallon of gasoline. This project demonstrates the feasibility of biodiesel as a sustainable fuel supply for use by the transportation industry. The data collected through this research will be used to pursue grant funding to further develop the system and to enhance the learning environment of the Biodiesel Club.

**Presentation Type and Session:** Poster V

## **E-Commerce: Expansion and Development Through Web Mining**

**Michael Rice**, Computer Information Systems  
Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The world wide web’s staggering level of penetration into the consumer market has made developing and managing a website into a vital part of any company’s agenda, especially those which operate in the retail domain. This shift conferred an opportunity for retailers to move into the electronic sector, a transition which offers numerous advantages to any business entering this domain. Often times, the first point of contact between a company and their customer will occur on their website, which allows companies to collect vast amounts of information about a customer’s behavior, activity, preferences, and usage patterns. The techniques which allow this information to be analyzed and applied is known as web mining. Modern web mining techniques catalyze the information gathering process and allows for growth and restructuring to meet the needs of both the consumer and the retailer. Web Mining is split into three distinct types: web structure mining, web content mining, web usage mining. The focus of this presentation will be on the development of web mining techniques, how these techniques are applied and utilized, the effect they have on the world of e-commerce.

**Presentation Type and Session:** Poster VII

## **The Effects of Automatic Withdrawals on College Student’s Accounts**

**Patrick Martin**, COM 390: Investigative Reporting  
Faculty Mentor: Professor Michael Niman, Communication  
**Note:** Complete Abstract in Humanities and Journalism, p. 58  
**Presentation Type and Session:**  
Oral – Arts, Journalism, and Social Sciences

## **The Effects of a Changing Economy on Fundraising Events**

**Alexandra Jenkins**, Hospitality Administration  
Faculty Mentor: Professor Kathleen O’Brien, Hospitality and Tourism

The Steadfast Foundation, a local charity founded by Sabres goalie Ryan Miller, is dedicated to assisting those afflicted and affected by the consequences of cancer, and especially childhood forms of the disease. The goal is to use resources to provide patients and their families support to help improve their circumstances and attitude and give them the best environment and a better ability to battle the disease. Funds are raised through a number of initiatives, including the “Catwalk for Charity” Event. This year the Steadfast Foundation experienced the effects of the changing economy. The Third Annual Catwalk for Charity relied on a more targeted market to ensure the success of the event

in 2009. This research project analyzes data collected from two consecutive years of Catwalk for Charity Event (2008, 2009). The data analysis will reveal that the strategy of target marketing is a very practical and successful tool to use when an economy is ever-changing.

**Presentation Type and Session:** Poster VIII

### **Failure Analysis and Design of a Poppet Style Check Valve**

**Todd Salzler and Peter Greenhalgh**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Cameron Compression Systems is a leader in industrial air and gas compression equipment. Reciprocating compressors utilize a number of spring loaded mechanical check valves to control the flow of gases. There are a couple of typical valve configurations used for this purpose, the plate type and poppet type. A poppet type valve has recently been applied to one type of compressor and this improved reliability and serviceability. However, it was then applied to a different size compressor and the valve failed prematurely. Cameron is sponsoring this project to examine the failed valves and determine the root cause of the failure. As part of this study an alternate design will be proposed for this application. The team is examining the design features of the valve assembly as well as the material properties of each of the components to determine the failure criteria of each. Operating environment information includes speed, temperature, pressures, and type of gas being compressed. An understanding of the types and frequency of forces acting on the valves will enable characterization of the failure. Once an understanding of the fundamental operating parameters has been reached, this information will be utilized in the design of a replacement valve. This design will include calculations of the strength of the materials involved to withstand the extreme operating environment. Another requirement requires that the new valve needs to be able to replace valves currently in service, eliminating any redesign of current compressors. Any design must utilize common production practices and minimize material usage so that it may be manufactured economically. Cameron will receive a failure analysis with relevant calculations utilized to support the cause of failure conclusion(s). Alternate design(s) will be proposed along with a preliminary cost analysis.

**Presentation Type and Session:** Poster IV

### **Four-Bit Circuit Counter Functional Tester**

**Clayton Cutler II, Dan Butch, and Ronald Dolcine**, ENT 465: Senior Design

Faculty Mentor: Professor D. Steven Barker, Technology

Our project will test four-bit counter integrated circuits, which Professor Goldberg can use in her classes. These integrated

circuits include: Discrete D flip flop series 74HC74, Four bit counter integrated circuits in the 74HC160 through the 74HC163 series, and the 74HC190 through the 74HC193 series. The project will include four verification strategies utilizing LabVIEW: Part 1: Design a variable number of states counter circuit using the 74HC160 through the 74HC163 series. Part 2: Design a count up counter circuit with variable states using the 74HC160 through the 74HC163 and the 74HC190 through the 74HC193. Part 3: Design a countdown counter circuit with variable states using the 74HC190 through 74HC193 series. Part 4: Design a count up and then count back down counter circuit with variable states using the 74HC190 through the 74HC193 series and a 74HC74 chip. There will be a protective hardware interface between LabVIEW and counter circuits that enables both the functional test and error test for each circuit with different counter circuits. The LabVIEW program will include: Clocking Controls, Data Acquisition, Data Analysis, Report Generation, and User Configuration Save Functionality.

**Presentation Type and Session:**

Oral – Business and Technology

### **Going Green: Consumerism and Businesses**

**Liz Szeluga, Hilary Lyke, Sara Tremaine, and Jamie Dennis**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Consumers have in recent years shown great interest for a 'green lifestyle'. According to research by Mintel ([www.qsmagazine.com](http://www.qsmagazine.com)) in 2008 the number of consumers buying green products tripled to 36% from the previous year of 12%. However, in more recent research done by Mintel in the last year the number of Americans buying green products is unchanged. This finding maybe due to the economic hardships Americans are facing this year. The objective for this study are four fold: 1) find out what constitutes a 'green lifestyle' in the mind of the consumer; 2) establish the level of commitment in staying green; 3) find out customers values that govern their lifestyle; and 4) establish consumers' beliefs in the economy, businesses/ government and self that affects their lifestyle. A questionnaire will be administered among Buffalo State College students in the age group of 18 to 26 years old. This questionnaire will take approximately 15 to 20 minutes to complete.

**Presentation Type and Session:** Poster VIII

### **How Well Do We Know Our Neighbors?**

**Rashida Dacosta**, BUS 363: Business in the Western Hemisphere

Faculty Mentor: Professor John T. Nolan, Business

With the slow down in the economy, many US companies are looking "off-shore" for growth. Countries in the Western Hemisphere are being targeted due to "proximity and familiarity".

Yet, how much do we really know about our neighbors to both the south and north. Do we know enough to recommend to a company that it should invest its valuable resources in an effort to grow its business? The answer my surprise you! As I found out by following the research process that is used by the US Commerce Department's Commercial Division to help small to mid-sized companies assess international business opportunities, it is not just enough to base a decision on "proximity and familiarity". To fully assess the potential opportunity a country offers, its political, social and economic intra-structures must be taken into consideration. The country I selected to research is Jamaica, the homeland of my grandparents. Jamaica is known for its beautiful beaches, its zesty foods and its joyous music. Should the U.S. company I represent invest in the Jamaican economy? My recommendation may surprise you.

### **Presentation Type and Session:**

Oral – Business and Technology

### **Integrating 5S Into a Job Shop Environment**

**Michael Wyzykiewicz**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

Contemporary manufacturing practice is increasingly influenced by a set of organizing principles generally referred to as "lean". Lean systems aim to reduce waste and inefficiency through the application of organizing principles. One very popular approach to lean manufacturing is a Japanese methodology (5S) that espouses five such principles: Sorting; Straightening; Sweeping; Standardizing; and Sustaining. This project uses a retrospective case study approach to evaluate the implementation of 5S in a job shop environment. Research is limited to areas targeted for the application of 5S principles at the business being studied. The research objective is to evaluate the effectiveness of 5S in the studied environment. Recommendations will be made regarding the future application of 5S principles in other areas of the business.

### **Presentation Type and Session:**

Oral – Business and Technology

### **IR Cooler Redesign**

**Kristopher Konopa** and **Brittney Canty**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Cameron Compression Systems is a leading provider of compression equipment in gas and process industries worldwide. Cameron is working on developing this cooler design for Ingersoll Rand compressors. Objectives for the redesign of the heat exchanger includes a design that is easier to clean and one that is more resistance to fouling. Five design ideas were proposed and using a six sigma cause and effect chart, it has been determined

that fins and ionic technology would be the best design choice. Final designs will be presented to our project sponsor.

**Presentation Type and Session:** Poster VIII

### **Leg Stretching Machine for a Patient With Familial Spastic Para Paresis**

**Shawn Mommertz**, **David Skierczynski**, and **Sharayah Walker**, ENT 422: Machine Design II

Faculty Mentors: Professor David Kukulka, Technology and Professor James Mayrose, Technology

Familial Spastic Para paresis is a spinal cord injury that causes the meltdown of nerve pathways carrying signals from the brain to the spinal cord. Only 3 out of 100,000 people contract this disease. Another name for this illness is Spastic Paraplegia and is part of a group of diseases that have similar symptoms and characteristics as other forms of Spinocerebellar diseases (Hereditary Ataxias). Symptoms often include the loss of coordination in the hands, legs, speech and eyes, which can also lead to an unsteady motion in the body. Patients diagnosed with Spinocerebellar Ataxia (SCA) remain fully capable mentally, but will eventually lose control of physical functions needed to perform daily tasks. After collecting background information about the disease, a better understanding of the objective of this design project was formulated. One of the most important constraints of the device was to integrate the ability of the user to stretch the inner thigh muscles, which can help to prolong the acceleration of symptoms created by the disease. Other constraint considerations were made based on cost, safety, ergonomics, and maintenance. In order to provide a better understanding of the issues and to further develop the device selection, a cost analysis and cause and effect matrix have been created. Based on the research and all of the data collected, a specific design was selected that incorporates all of the features that will best suit the needs of the end user.

**Presentation Type and Session:** Poster VIII

### **The Look of Luxury, But at What Price?**

**Jacqueline Schuchmann**, **Miranda Warner**, and **Amanda Martin**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Knockoffs account for five percent in a 181 billion dollar apparel market. Several magazines and websites dedicate pages to inform consumers of designer styles and the copied versions sold at a fraction of the price. Consumers who follow trends but are strapped for income have enjoyed the opportunity to buy knockoffs and counterfeit through readily available outlets. Designers are beginning to battle this problem by filing lawsuits. Seventy five percent of consumers who have bought knockoffs said that if they were to do jail time for their purchases they would be deterred from buying. In 2007 research indicates that



69% of Americans believed there was nothing wrong with buying counterfeit goods. The purpose of this research is four fold: 1) investigate consumers' perceptions of knockoffs and counterfeit goods; 2) investigate reasons for purchasing these items; 3) determine if consumers understand the nature of this problem; and 4) determine consumers decision making process when buying knockoffs.

**Presentation Type and Session:** Poster VII

### Measuring the Impeller Clearance of a Centrifugal Compressor at Operational Speed

**Todd Salzler and Peter Greenhalgh**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Centrifugal compressors rotate at high speeds during operation. One particular compressor spins a 13-1/2 inch diameter impeller at 25,000 rpm. A clearance of 0.003 to 0.010 inches between the spinning impeller and the stationary inlet has demonstrated maximum operating efficiency. During operation the impeller is subject to centrifugal and thermal growth that decreases the space between the components. The amount of static clearance is determined through a time consuming, manual process. Small "buttons" of a soft material are fastened to the inlet housing so that they are higher than the intended clearance. Assembly of the housing to the compressor with shims ensures a large static space. Once complete, the machine is run at operating conditions causing the impeller to "shave" the buttons. The remaining height of the buttons indicates the space during operation. In order to measure this height the compressor must be disassembled. Any required change to the spacing is affected by removing shims from the stack between the inlet housing and diffuser section during reassembly. Cameron has asked for a design that incorporates an inductive sensor into the inlet housing. This will allow the running clearance to be measured during operation. Some constraints on the inductive sensor are the ability to operate at 400-500°F, a sensing range of at least 0.060 inches, and a frequency response of at least 132 Hz. Identifying a suitable sensor, data acquisition system and sensor mounting in the inlet housing encompass the project. After the clearance has been set with the inductive sensor, it will be removed and a plug will be installed in the mounting hole.

**Presentation Type and Session:** Poster V

### Media and Advertisements Influences on Women

**Kaleigh Foley and Kristina Flippen**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Consumers today are exposed to a vast number of fashion

advertisements. Advertisements besides informing us about trends in fashion are also convincing and influencing us in shaping our values and perception of body image. According to the social learning theory women exposed to advertisements that depict the ideal beauty in unrealistic forms have started to accept this ideal beauty as the expected norm for attractiveness. The objectives for this study are: 1) investigate how fashion advertisements portray the "ideal" body image and 2) determine how fashion advertisements manipulate one's perception of self and others.

**Presentation Type and Session:** Poster VIII

### Objectification in Fashion Print Ads and its Affect on College Women

**Alyssa Guley, Megan Harrick, and Kristin Miller**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Nearly all of the female models within current print fashion advertisements represent a scarce minority of thin, angular women. These ubiquitous images portray grown women as pre-pubescent, unshapely, and, at times, unhealthy beings. Unfortunately in today's society, these thin figures have become the ideal body image for which many women strive. As Frederickson and Roberts' objectification theory presents, "The common thread running through all forms of sexual objectification is the experience of being treated as a body (or collection of body parts) valued predominantly for its use to (or consumption by) others" (1997, p.174). Therefore, not only are female models selling a product by selling their thin body images, female audiences are presumably influenced by, not only these images, but also the idea that their bodies are being judged by all of society: a society that has accepted an unnaturally thin body as, paradoxically, both the norm and the ideal. Through our own study we want to explore how women ages 18-24 react to current print fashion advertisements with thin models selling product. An understanding that women are objectified as "bodies" within print media is already established; our study will focus on the reaction of women to a few print advertisements, as well as ask questions concerning those participants' true feelings about their idea of the ideal body weight and the effects of thin models on their own personal body perceptions. Women ages 18-24 constitute a large consumer base, an age group that pays close attention to fashion and fashion publications. Also, women ages 18-24 seem very body-conscious and may be strongly, yet adversely, affected by these print ads. We would also look into how our participants feel about the idea of body objectification, and whether or not they feel that these print ads perpetuate an unrealistic ideal that female audiences feel is a pressure that is necessary in order to live up to society's standards.

**Presentation Type and Session:** Poster VII



## Offshore Power Supply

**Brittney Canty** and **Kris Konopa**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Cameron Compression Systems is a leading provider of compression equipment in gas and processes industries worldwide. Working with Cameron Compression Systems, a study of possible power supply options for offshore drilling will be conducted. Currently offshore oil well equipment is directly connected to the shore with lengthy power cables stretching across the seafloor to land, requiring a very high voltage input due to the amount of loss. Using this method of power supply is very costly and will soon be impractical as the available oil supply moves further from shore. An investigation of using rechargeable battery packs located on the seafloor will be done eliminating the need for power from shore. Also a look at possible battery charging power sources including solar energy and the idea of buoy power generation. Along with finding an affordable method of generate power miles from shore, the key to this project will be to determine a method of transferring the energy from the surface of the ocean, miles down to the sea floor. Research and calculations will be preformed to find the best option for power delivery considering power losses, ocean currents, and dependability.

**Presentation Type and Session:** Poster VI

## Predicting Preparedness for the Digital Television Transition Using Proven Factors of the Digital Divide

**Jessica Levenson**, Computer Information Systems

Faculty Mentor: Professor William Lin, Computer Information Systems

“On June 12, 2009 all full-power broadcast television stations in the United States will stop broadcasting on analog airwaves and begin broadcasting only in digital.” We’ve all heard the warnings, but will we all be able to make the transition? Or maybe you’ve already unknowingly made it? This study looks at proven factors of the digital divide and applies them to the upcoming DTV transition in order to find out who will be able to make the transition in time, who won’t, and what factors will decide which of these two categories you’ll fall into. Armed with this knowledge, maybe we can improve the efficiency of the DTV transition.

**Presentation Type and Session:** Poster VIII

## Programming for Anyone: Using Alice 3D to Teach and Learn Computer Programming

**Ernesto Miranda**, Computer Information Systems

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The purpose of this presentation is to show how software

programs such as Alice 3D can be used to learn computer programming. Many people, especially those with little experience with computers or insufficient knowledge of mathematics, find computer programming difficult because it is usually taught using various mathematical concepts. Many programming languages also have very specific syntax that is difficult for many people to understand. Alice 3D allows users to create simple games and movie clips to learn basic concepts of computer programming. This research will focus on the uses of Alice 3D for learning and teaching programming. It will include a literature review of the use of the software and how it has impacted learners’ interest and understanding of computer programming. It will also discuss the capabilities and limitations of the software in teaching the programming concepts.

**Presentation Type and Session:** Poster VIII

## Purchase of Intimate Apparel

**Cara Stanton**, **Rachel Shearer**, and **Lisa Atkins**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Intimate apparel is an important part of all women’s wardrobe. Although intimate clothing has a functional purpose most women buy and use them for aesthetic and emotional reasons. The emotional aspect of intimate clothing could be to boost confidence, to excite their significant other or simply to make the wearer feel good. Intimate clothing can be purchased in a variety of stores from expensive boutiques to off-price stores and now through non-store retailers. Advertisers spend a lot of money and techniques to stimulate consumer purchase. Previous studies have shown that purchase of intimate clothing is affected by impulse buying. Impulse buying has been explained as a spontaneous purchase. The purpose of this research is: 1) to investigate shopping habits of women with intimate apparel, 2) determine the external factors influencing purchase, and 3) investigating the gifting aspect with respect this apparel.

**Presentation Type and Session:** Poster I

## Rapid Prototyping

**Barry Rafan**, ENT 314: Solid Modeling

Faculty Mentor: Professor James Mayrose, Technology

The Real Touch of Rapid Prototyping is experienced in ENT 314 (Solid Modeling), where the possibilities of exploration and gratitude are astounding. As a Mechanical Engineering student in ENT 314 I designed a fully functional standard gasoline engine’s piston, a classic automobile and a sleek power boat. These items were all produced utilizing the Solidworks, 3D software program. In addition, the 3D software program allows the student to create larger assemblies from a number of smaller parts they created. This enables a closer look at the functionality of the design in

cases with multiple parts. Upon inspection of functionality a prototype is then produced with the Rapid Prototype printer. The prototype allows others to touch, conceive and live the design intent of the developers product. This allows the student engineer to explore their own ideas and designs in a short period of time allowing for a creative and successful future in product design and development.

**Presentation Type and Session:** Poster VII

### **Re-Engineering the 914th Medical Squadron's Process Flow: Pre-Admission to Discharge**

**Liaquat Ali** and **Mohammad Ali**, INT 689: Research Methods  
Faculty Mentor: Professor John Earshen, Technology

The global war on terrorism has changed the way U.S. Air Force Reserves functions at the 914th Airlift Wing, Niagara Falls, NY. In particular, the medical squadron on base has faced a dramatic increased demand for service. The local base is challenged to process the patient load in a timely fashion; this results in an excessive delay when qualifying airmen for missions. The medical unit not only provides medical evaluation for worldwide duty for 1,200 reservists, they are tasked with domestic and worldwide missions for their own unit. The problem is that it takes too long to process airmen who are being medically evaluated. Issues range from lack of computerized medical records to work-flow space constraints, scheduling, and availability of medical personnel. The performance of the medical squadron needs immediate attention. The investigators are undertaking this project as a team, and aim to address the problem using six sigma/lean and time-study principles. The project goals are to: 1) Improve throughput cycle time from pre-admission to discharge while maintaining a safe, low-stress environment, 2) Re-design process flow and physical layout, and 3) Develop a plan to automate record-keeping in the near future.

**Presentation Type and Session:**

Oral – Business and Technology

### **SAE Mini-Baja: 2009's Model**

**Benjamin Lorenz** and **Barry Rafan**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Mini-Baja is a collegiate design contest held by the Society of Automotive Engineers (SAE). The contests started in 1976, at the University of South Carolina. The challenge of Mini-Baja is for students to design, build, and test a rugged, single-seat off-road vehicle. The vehicle must stand up to the rigorous design requirements set forth by the SAE. Upon completion of their vehicle, students compete at a race in Burlington, WI,

with over one-hundred other schools. This contest is a great chance for engineering students to apply all of their cumulative knowledge, into a real world design scenario. For 2009, Buffalo State College hopes to have created a competitive vehicle, capable of withstanding the abuse of the off-road race. The 2009 vehicle stands apart from other vehicles, due to many different additions. The most notable factor is the use of a semi-manual All Terrain Vehicle transmission. This allows the vehicle to accelerate faster, and have a greater top-end speed. Another distinction of the 2009 vehicle is the use of air shocks. These are far lighter than previous designs, and allow the vehicle to handle better through the course. Vehicle size has also played a major role in the design of this year's 'baja'. The design team has chosen to decrease the overall size of the car, saving precious weight, and creating a more nimble car, overall. Buffalo State College will be competing at SAE Midwest this year in Burlington, WI. The competition is a four-day event, including many events that challenge all aspects of vehicle design. All vehicles that compete must pass the thorough SAE Technical Inspection, which ensures racer safety, and that all design criteria are met. The vehicles are then subjected to an overall judge of appearance, and prototype cost. Vehicle traction is put to the test, with a hill climbing contest, and mud-bog competition. The vehicles maneuverability is also evaluated in a specially designed course. Overall vehicle reliability is tested during the four-hour endurance race. Here, the vehicles race through a course complete with berms, logs, jumps, and drop-offs. All of these things would not be possible without the generous donations of our sponsors. The Mini-Baja team has received many donations of money, materials, and tooling from various local businesses. A generous grant from the Office of Undergraduate Research has also allowed the team to include many of the features that set this vehicle apart from others.

**Presentation Type and Session:** Demonstration – Saturday, May 2, 11:00 a.m. – 1:00 p.m., Student Union Quad

### **Shopping Habits of Male and Female College Students**

**Dennis Pickens**, **CaSandra Reid**, **Laura Mann**, and **Kadia Blagrove**, FTT 355: Research in Fashion Merchandising  
Faculty Mentor: Professor Liza Abraham, Technology

College students enjoy shopping. They shop for various reasons such as checking out an university town or city, establishing a sense of comfort visiting familiar chain stores, socializing with newly made friends, and staying up to date with trends. Shopping habits between males and females is shown to vary. There is also evidence of difference in buying behavior among races. The purpose of this study is to establish the difference in shopping habits between males and females based on race on issues related to where they shop, reasons

for shopping, having a job, support for shopping by parents or relatives, and use of media. We plan to conduct our study on male and female Buffalo State students. We will obtain information from the subjects by administering a survey.

**Presentation Type and Session:** Poster VI

### **Solar Energy Collection and Conversion Experiment**

**Shawn Mommertz, David Skierczynski, and Sharayah Walker**, ENT 422: Machine Design II

Faculty Mentor: Professor James Mayrose, Technology

This experiment was created to demonstrate how a solar panel would be used as an alternative energy source. Some of the various applications in which solar energy could be used include space heating and cooling through solar architecture, safe drinking water through distillation and disinfection, daylighting or natural lighting, thermal energy for hot water and cooking, and high temperature process heat for industrial purposes. Solar energy includes the radiant light and heat filtered through the ozone layer into our atmosphere. In order to harness solar energy a solar panel or photovoltaic module captures the light from solar rays, converts it to electric energy and then stores it in a battery to be used when needed. This method of collecting and storing the energy is characterized as an active solar collection method because it uses electrical or mechanical equipment to convert the solar energy into usable light, heat or electric energy. A passive solar collection system does not use any electrical or mechanical means to harness the solar energy; a green house would be a good example. In a green house, the glass that is used in the construction filters out all the light rays in the spectrum except for infrared. Infrared light rays will generate heat once they pass through the glass, which causes a natural heating of the inside of the green house so that plants can be grown at any time of the year. Once completed, this system will be tested, taking into consideration climate change, location and other variables that would affect the light source. Any data collected during the experiment can be used to determine the optimal operating conditions needed for the panels to work. Finally a fixture will have to be designed, which will be used to gauge the cost and method to manufacture the device.

**Presentation Type and Session:** Poster IV

### **Splunk: A Revolution in Data Mining**

**Daniel Ryan**, Computer Information Systems and **Kyle Root**, Computer Information Systems

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The goal of our research is to objectively analyze Splunk, a new revolution in IT data mining and carefully present the pros

and cons that this new methodology can offer its users. Splunk is an excellent way for a business or an individual to store, search, and mine their data successfully, effectively, and efficiently. It has caught the attention of many organizations and many companies have already benefitted from this software's unique capabilities. Splunk offers Google-like searching capabilities that allow IT professionals to effectively access data activity recorded by company servers. The program allows a company IT department to view and analyze server LOG files that are automatically parsed and sorted into a more understandable format; therefore, making troubleshooting and debugging more efficient. As an added bonus, this program performs on multiple platforms (including both Windows and Linux). An issue many analysts encounter is the misinterpretation of raw data. Traditional web analytical tools do not offer the features and functions necessary to interpret collected data properly. The presentation will be focusing on issues related to Splunk such as the following: benefits and usefulness of the program, primary target market, and system weight vs. performance.

**Presentation Type and Session:** Poster VI

### **The Square Watermelon ... or Creativity and Teamwork in New Product Development**

**Dean Drago, Patty Minard, Kevin Skovenski, and Shawn Hess**, BUS 389: New Product Management

Faculty Mentor: Professor John T. Nolan, Business

New Products are central to the success of most companies. Successful companies in most industries derive up to 50% of their revenue from New Products. In every organization (industry, retailing, government, non-profit, etc.) there is a person or group of persons who, knowingly or unknowingly, are responsible with achieving growth through the development of new products. And like the team that created the square watermelon, these people lead multifunctional groups of people and must deal with the total task - from concept generation to through evaluation to marketing. Companies allocate a significant amount of resources to the development of new products, yet every year between 65 and 80% of new product introductions fail to achieve desired results. In order minimize the risks, companies like the one that invented the square watermelon are undertaking a systematic approach that begins with ideation through creative problem solving techniques similar to those taught by the Creative Studies group. From ideation it moves to concept evaluation through a "voice-of-the customer" methodology. The final phase leverages marketing expertise to generate awareness and gain customer trial. Our teams' "square watermelon" solution was to develop a new "deli meat" product concept and introductory plan that meets the needs of today's 'on-the-go' consumer for Sahlen's



Meat Packing Company using a process called Stage Gate.

**Presentation Type and Session:** Poster II

### **Starting at the Roots: African-American Hair**

**Talethia Cunningham, John Everett, Julie Halliburton,** and **Shavonne Rivera**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Today, young African American women enjoy the freedom of wearing their hair in an array of styles that gives them their own identity. This cultural identity embraces both the European standard of beauty of long, straight hair to the African American trend of wearing it short, natural, afro-bush, twists, and locs. This study has four objectives: 1) understand the importance of hairstyle in the African American community; 2) determine what influences their choice of style; 3) investigate the level of information sought by consumers on techniques, hair products, and services; and 4) investigate consumers' choice of style based on lifestyle, income, and ethnocentricity.

**Presentation Type and Session:** Poster VIII

### **Subsea Power Generation for Subsea Electric Trees**

**Amauris Rodriguez** and **Shawn Kibler**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

Cameron Compressions Systems is a local manufacturer of drilling systems, various valves, and compression systems. The Subsea Systems division of the Drilling and Production Systems group specializes in providing products and services that are vital to oil and gas well operation. Cameron's DC Subsea Electric Tree is powered by an undersea hard-line connected to an onshore power source. Current technology limits the distance wells can be drilled offshore to approximately 100 miles. Limiting factors are the cost and electrical resistance of the hard-line. This project is being conducted in order to devise a method of producing a sufficient amount of power to operate the tree at or near the sea floor. Methods evaluated for producing power at subsea levels being researched are subsea buoys, cavitating underwater acoustic devices, underwater acoustic transducers, and piezoelectric devices. The power output capabilities of each method will be studied and compared to the tree's power requirements.

**Presentation Type and Session:** Poster VI

### **There's Powder in Numbers: Lean Engineering Inspires a Powdercoat Job Shop**

**Glen Kern**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

Today's manufacturing world is highly competitive. Fast, inexpensive shipping now permits even a small job shop to compete for business. Metal fabricating facilities, large and small, are moving away from painted metal surfaces and toward the durability and corrosion resistance of powdercoat. The research question is: how will small "Mom and Pop" operations accommodate the market's trend toward powdercoat? Large shops change colors less often, thus saving on changeover and set up costs. How can the small shops make their changeovers quickly and cheaply? How will they survive? Existing equipment must be utilized in more efficient ways. New, less wasteful processes must be employed to save steps and materials. Tools and equipment must be purchased or fabricated to reduce or eliminate changeover time. Employees must be used not just as another set of hands, but also as engineers. This paper will detail how a small shop will shed its current practices to become a benchmark of flexibility.

**Presentation Type and Session:**

Oral – Business and Technology

### **Transition From 100% Inspection to Quality at the Source: A Manufacturing Case Study**

**Joseph Mazurkiewicz**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

Manufacturers often rely on 100% inspection of finished products to assure compliance with specifications before delivery to a customer. This method of quality assurance does not guarantee a product to be free of defects when received by the customer and adds considerable expense to the cost of goods. This paper addresses the non-value added nature of 100% inspection activities and the problems that 100% inspection cause in the provision of products. Alternatives to 100% inspection will be evaluated for effectiveness in improving first time through quality and eliminating customer complaints related to product defects. The paper limits itself to the practices of a small medical device manufacturer in Buffalo, NY and to one particular product produced in this facility. The following problem statement was formulated as a result of extraordinary customer complaint reports in the first quarter of 2009: to transition from a quality assurance system based on 100% inspection to a system based on problem solving, error proofing and assuring conformance to specifications throughout the production process. The paper will evaluate the effectiveness of current quality assurance practices

and recommend alternatives. These steps are necessary in order to remain a competitive supplier in the global medical device industry.

### **Presentation Type and Session:**

Oral – Business and Technology

### **Virtual Shared Services Organization Governance and Cost Structure**

**Ranjit Kolla**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

Driven by cost reduction and improved quality of service, a multinational bank has adopted shared services organization (SSO) as a governance model to manage their staff functions in IT. This paper seeks to explore this structure using the virtual based model and internal billing methods. A case study of the information technology (IT) unit of this multinational bank is presented to provide detailed insight into the issues involved when adopting and migrating an IT resource system to a shared services organization model. The analysis is extended using conceptual models of the relevant sub-systems developed through virtual shared services organization model. A distributed model is also used to express the transformation to a virtual shared services organization model. This study will spawn further research in the areas of pricing or billing methods.

### **Presentation Type and Session:**

Oral – Business and Technology

### **Waste Heat From Compression of Air: Is it Really Waste?**

**Patrick Pierce, Charles Abbott, and Steven Gardner**, ENT 422: Machine Design II

Faculty Mentors: Professor David Kukulka, Technology and Professor James Mayrose, Technology

Heat energy is a major byproduct of the air and gas compression process. In most instances this energy is considered to be “waste energy”. Absorption is a process typical in refrigeration systems, where a refrigerant is mixed with an absorbent, heated to vaporize the refrigerant, and initiates a vapor cooling cycle. This project involved the theoretical and experimental analysis to determine the feasibility of utilizing the waste heat from a centrifugal air compressor. An absorption refrigeration system, powered by the waste heat, was used to provide cooler inlet air temperatures that resulted in increased compressor efficiency. This “Green” innovative concept could have a significant impact on the global energy usage since compression of air is considered the fourth largest utility after electric, water and gas. Energy used to compress air in the US is estimated to exceed one-half quadrillion BTU’s (35% of a plants energy cost); therefore, any methods of saving energy are vital. This project is sponsored by Cameron Compression and has been entered into a

National collegiate competition hosted by CAGI, Compressed Air and Gas Institute. The possibilities of this concept have initiated a great interest from Cameron Compression Systems and they are currently pursuing a patent on this process.

**Presentation Type and Session:** Poster V

### **Water Meter Cover Lock**

**Tim Curcione and Turrón Daly**, ENT 422: Machine Design II

Faculty Mentor: Professor David Kukulka, Technology

McGard is the nation’s leading manufacturer of mechanical anti-theft devices. The evolution of the unique Intimidator line of products has provided innovative security solutions for access / perimeter control and theft / removal prevention for municipalities, public utilities, the oil field industry, high security facilities, and electronics / telecommunications equipment. The foundation of McGard’s business success has always been our focus on producing products of consistent high quality that insure the greatest value for their customers. McGard has sponsored a project to design a locking system for a water meter.

**Presentation Type and Session:** Poster IV

### **Web Analytics and Google Analytics: Usage in Business Enhancement**

**Matthew Richardson**, Computer Information Systems and **Bethany Tucker**, Computer Information Systems

Faculty Mentor: Professor Sarbani Banerjee, Computer Information Systems

The focus of the present research is on Web Analytics and Google Analytics. Web Analytics is the study of the Internet data that is collected and analyzed to help improve and understand the usage of web sites. Google Analytics is a free service available to everyone but is more focused on businesses looking for statistics on specific websites or website services. Google Analytics allows businesses to learn about specific online strategies that help save money and see how customers use their websites. The main purpose of the research is to find out how businesses use Web Analytics and Google Analytics to better improve their current business techniques to gain access to more customers. It will also focus on how these businesses can take the data and use it to strategize marketing techniques. Our presentation will step through the process of setting up an account, how it monitors onsite and/or offsite statistics, and how to view reports businesses have generated using the data gathered through Web Analytics and Google Analytics.

**Presentation Type and Session:** Poster VI



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## ***Education and Problem Solving***

### **The Advancing Technologies and Emerging Techniques of Art Education**

**Garrett Fallin**, Art Education

Faculty Mentor: Professor Shirley Hayes, Art Education

To better know a field of study, one must first know where it is going. The core value has been the basis of my research in which I've investigated and researched numerous forms of innovative and emerging technologies that can be valuable teaching assets in the art education field. Attending this years New York State Art Teachers Association's (NYSATA) annual conference in Rochester, I was able to interview one-on-one representatives from various top name-brand companies, such as Crayola and Dick Blick, and discover several innovative test products the companies have hopes to release on the market this upcoming year. Talking with different technological scholars I discovered several advancing technologies that hold the potential to become beneficial to the art education field. One astounding innovation I came across was taking the Nintendo Wii Counsel's hand-held controller, and converting it into a top-of-a-line interactive digital white-board. My presentation will consist of a poster presentation, accompanied with hands on interaction with cutting-edge materials and technologies, along with demonstrations upon request and movies to view.

**Presentation Type and Session:** Poster IV

### **Affects of the School Environment on Student Achievement**

**Dalphe Bell, Jennifer Valeri, Lindsey Crill, and Christine Bussa**, EDU 312: Teaching Mathematics and Science in Elementary Schools.

Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

In the Buffalo Public School system, there are 50 elementary schools with the same reading and math programs being used in all of them. They all have good qualified teachers and aides, as well as competent and capable administrators. All students are in school for at least six hours a day and 180 days each year. They also receive transportation to and from school, free lunch if needed and are under a superintendent with over 39 years of experience in the educational field. However, with all of these aspects the same the academic performance widely varies between schools. This makes one wonder what differs between schools that make some students achieve academically while other do very poorly on the same tests. The tests results we will be comparing

are the English Language Arts (ELA) exam and the State Mathematics test that elementary students in most grades must complete every year. In our research we visited different schools in the Buffalo Area and evaluated certain features of their physical learning environment to compare with other schools. These features include the aesthetics of the school, available technology, as well as availability of a variety of materials for students and teachers. Each aspect is rated on a scale from below average to superior. The results of the comparisons will surprise you!

**Presentation Type and Session:** Poster V

### **An Analysis of Technology Education Programs on the High School Dropout Rate**

**Greg Keenan**, INT 689: Research Methods

Faculty Mentors: Professor Steve Macho, Technology and Professor John Earshen, Technology

The dropout rate among American high school students has been a serious problem that has plagued the education field for decades. High school students in the public education setting are continuing to dropout at alarming rates nationwide. It is extremely important to reach out and connect to these troubled students offering them classes and courses that they can relate to in order to keep them enrolled in school. This research paper will address and examine the statistics of how hands-on technology education classes can keep more at risk students enrolled in school and prevent them from dropping out. We will take an in-depth look at the dropout rates among New York State public schools identifying those that offer a high school technology education sequence versus those that do not. This project aims to support the argument that technology education classes in New York State are an important part of a child's education and can help keep more students in school. The high school dropout dilemma will not fix itself, and it is up to us as professional educators to address the issue at hand and take part in doing our best to solve it.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Benefits of Curriculum Mapping at Grand Island Central Schools**

**Jonathan Shelley**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

This project will examine the impact of Curriculum Planning (CP) on the Grand Island high school's Technology Education program. Currently there is no curriculum map for the high school technology sequence, which leaves the school to follow NYS standards. The result is that courses often overlap in content and in some instances, technical content may not receive adequate

treatment. This paper will discuss the importance of curriculum planning, as well as some of the most popular approaches to it. The goal of this project is to develop a curriculum map for the Tech Ed program at Grand Island High School. The investigator will seek collaborative input from all teachers and periodic input from key administrators. Selected students will also be asked to react to curriculum ideas under consideration for adoption. The investigator plans to develop a curriculum map that fits the Grand Island High School situation.

### **Presentation Type and Session:**

Oral – Education and Problem Solving

### **Can Carl Roger’s Theory of the Fully Functioning Human Be Applied to Creative Thinking in Residence Hall Atmospheres?**

**Elizabeth Scharf**, HON 400: All College Honors Colloquium  
Faculty Mentor: Professor Andrea Guiati, Director, All College Honors Program

The purpose of this study is to understand the effect of a living environment on student thinking and creativity. Carl Roger’s theory of a fully functioning, self-actualizing human will be applied to the atmosphere of Residence Halls. This study will explore Roger’s idea that an inviting and appropriate physical environment is essential to maximize student creativity. The effects of recreating the ambiance of a suite style dormitory room will be analyzed in regards to student creativity and attentiveness to schoolwork.

**Presentation Type and Session:** Poster VIII

### **Classroom Team-Building Activities**

**Pamela Lange, Jason Malczewski, Jackie Newell, Sharlyn Ten, Nicole Teti, and Tina Thomson**, EDU 312: Teaching Mathematics and Science in the Elementary School  
Faculty Mentor: Professor Hibajene Shandomo, Elementary Education and Reading

As teacher candidates we are expected to foster teamwork in every lesson we teach. The first lesson we teach is an ice-breaker that allows students to get to know us and one another. Using inter-dependent community building activities such as an icebreaker helps build learning communities. Icebreakers help students warm up for our upcoming lessons. They also promote motivation for interaction. This study is to determine why educators spend valuable class time on team-building activities. Are such lessons appropriate and necessary to create a community of learners in the classroom? The proposed approach is to examine research articles on the topic, interview teaching professionals such as mentoring teachers, and review various successful team-building activities to determine why classroom teachers utilize these lessons. Through research, we have found

that the strengths far outweigh the weaknesses of using these activities. By studying the theory behind these lessons, educators will gain a better understanding of why these activities may be crucial to creating a classroom community.

**Presentation Type and Session:** Poster VI

### **Create, Publish, and Share (CPS) Project Phase II**

**Katelyn Iovino, Sarah Zengar, Nicole Penton, Kristina Zaleski, Jesse Chertow, Jason LeGrett, Samantha Hillis, Kristin DiMillo, Jennifer Augstell, Kayla Maggard, Michelle Kaczmarek, Randall Yu, Corey Wilson, Dave Van Blargan, and Marine Dembrow**, EDU 312: The Teaching of Mathematics and Science in the Elementary School  
Faculty Mentor: Professor Coralee Smith, Elementary Education and Reading

The Create, Publish and Share Project (CPS) Phase II merged the Elementary Education Undergraduate Teacher Candidates, field-based Mentor Teachers, and college course instructor to create, publish and share original mathematical and science based content books integrating English Language Arts for elementary readers. Each Teacher Candidate wrote and illustrated an original book based on mathematics or science content during an urban sixteen-week field-based placement at West Hertel, a Professional Development School. The books’ contents reflect the diversity of the elementary students; the developmental reading levels of the elementary students; and national and state learning standards used by the Teacher Candidates. The Teacher Candidates used the books during their urban-based field placements for teaching mathematics and science to their elementary students. Additional copies of the books will be available in the West Hertel library and in the College Curriculum Library. Buffalo State College Center for Excellence in Rural and Urban Education provided funding.

**Presentation Type and Session:** Poster VI

### **Creative Problem Solving and Academic Success**

**Ted Mallwitz**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor John Cabra, Creative Studies and Professor Andrea Guiati, Director, All College Honors Program

What is the “CPS model” and how can it help me get better grades? Achieving academic success is unquestionably a challenge for all students. By applying elements of the Creative Problem Solving model, more commonly associated with the Creative Studies and business fields, students are better equipped for success in college. Understanding the four “P’s” of the CPS model: Person, Press, Process, and Product can help student’s develop better study methods and achieve academic success. This

research is aimed at illustrating a clear understanding of the CPS model and how this knowledge, when applied to academic studies, can help students reach their academic goals.

**Presentation Type and Session:** Poster V

### **Designing a Program to Promote Literacy and Foster an Appreciation for Literature in Children**

**Leah Kerr, Annika Laughlin, and Kelsey Till**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Lorna Pérez, English

In March, we began working with the North Buffalo Community Center to develop a reading series for the children in their after-school program. Our two main goals in creating this program are to improve their reading and writing skills, and to develop an interest in reading for pleasure. There are seventeen children in the program that range in ages from four to twelve, and have varying levels of reading abilities. We were challenged to create a program that would be able to incorporate the different needs of each student. For our first session, we read the Roald Dahl stories *James and the Giant Peach* and *Charlie and the Chocolate Factory*. Following our readings, we would lead the children in a discussion of the text, a craft related to the reading, or a combination of both. For the future, we want to find the means to provide each child with a copy of the book we are reading so they may follow along, and not just listen to us read. We plan to continue working with the North Buffalo Community Center, but are also developing similar programs with other organizations in Buffalo, thus fostering partnerships between Buffalo State and local agencies through volunteering.

**Presentation Type and Session:** Poster VII

### **Effective Instructional Supports for African American Teacher Candidates**

**Felicia Scott**, Childhood Education

Faculty Mentor: Professor Pixita del Prado Hill, Elementary Education and Reading

Through this poster presentation we seek to stimulate discussion of ways teacher education programs might provide effective instructional supports to African American teacher candidates to encourage greater recruitment and retention of this group of college students. Our poster will share data from a qualitative study and includes data gathered through interviews with teacher candidates as well as a content analysis of a required reflective assignment. The authors include an undergraduate teacher candidate and a teacher education faculty member. Through the poster we will describe the project, share the results

of the data, and discuss possible instructional supports for African American teacher candidates.

**Presentation Type and Session:** Poster V

### **The Effects of Interactive Versus Simple Read Alouds on Young Childrens' Vocabulary Acquisition and Usage**

**Alyssa Kurtz, Melissa Cotton, Lindsey Martin, Sara Schmitt, Suzanne Koons, Samantha Kempis, Meagan Riordan, and Amanda Kach**, EDU 311: Teaching Reading and the Other Language Arts

Faculty Mentor: Professor Maria Ceprano, Elementary Education and Reading

Junior practitioners (JPs) in Kindergarten and First Grade classrooms at the Enterprise Charter School compared the impact of Interactive Read Alouds and Simple Read Alouds on children's Tier two vocabulary meaning acquisition and usage. Using short narratives containing at least 8 tier two words, each JP read a story aloud to four children on a one to one basis. The selected story was read twice using 5 elaborations for each of the target words as they occurred in the story and twice without any elaboration at all. Each child was then asked to retell the story. Each child's usage of the target words during the retelling was noted for occurrence and accuracy of usage. Findings of this study will be forthcoming for the presentation.

**Presentation Type and Session:** Poster IV

### **Elementary Education Undergraduate Responses to an Urban Shadowing Experience**

**Rachel Mooney**, Childhood and Early Childhood Education  
Faculty Mentor: Professor Leslie Day, Elementary Education and Reading

As part of EDU 201, the introductory course to the Childhood Education major, students are required to complete a shadowing experience in a local elementary school in an urban setting. Students were asked before completing the experience to rate themselves as "unlikely," "undecided," or "more likely" to teach in an urban setting, as well as share what they anticipated from the experience. The students were surveyed again after completing the experience, again rating themselves as "unlikely," "undecided," or "more likely" to teach in an urban setting. The data was compared to determine trends. This research is part of an ongoing project by the Buffalo State College Professional Development Schools Consortium Student Representatives.

**Presentation Type and Session:** Poster V



## Enrollment in Tech Education: Identifying Effective Recruitment Strategies

**William Maher**, INT 689: Research Methods

Faculty Mentors: Professor John Earshen, Technology and Professor Clark Greene, Technology

Technology Education courses are mandated in most middle schools but exist only as electives in the high schools. It is believed that high school electives in Tech Ed often are not marketed to the core group of students that they could serve best. The question is: How to reach those students with technological interests, talents, who may not be predisposed to enroll in these electives. It is the goal of this project to identify and test communication strategies that may more effectively convey the benefits of Tech Ed electives to students, their parents, district voters, and school boards. One strategy to pursue is to better communicate course content and learning objectives to various target groups: middle and high school guidance counselors; parents; and the students themselves. Another strategy is to raise core subject area teachers (ELA, math and Science) consciousness of how their courses interrelate with technology education standards. This paper will suggest strategies that can be used in classrooms, in student advisement sessions, and in group settings to increase student interest and enrollment in Tech Ed electives at the high school level.

### Presentation Type and Session:

Oral – Education and Problem Solving

## Experiences and Opportunities Provided Teacher Candidates in PDS

**Amy Henchey**, Literacy Specialist (B-6), **Rachel Mooney**, Early Childhood and Childhood Education, and **Bryana Loos Haas**, Early Childhood and Childhood Education

Faculty Mentor: Professor Leslie Day, Elementary Education and Reading

Partnership, collaboration, and professional development are important components of the Buffalo State College Professional Development School (PDS) Consortium. Teacher Candidates are significant stakeholders in this collaboration as representatives who not only support PDS initiatives and the PDS mission, but also make daily impact on young learners, participate in classroom research, and contribute to the professional learning community. Two undergraduate teacher candidates and one graduate assistant, through a process of departmental nominations and recommendations, are selected to support and work with the PDS Director, PDS Advisory Council, and PDS Consortium. Updating website information, preparing materials for Consortium events, data collection and analysis, disseminating information regarding PDS events during specialized orientations for teacher candidates, and other daily operations are just some of the student representative's responsibilities which aid the

PDS's growth and development. These teacher candidates have early opportunities to develop leadership and collaboration skills through their experience in the Advisory Council, the guiding body of the PDS, where their voices are highly respected and lend significant real world perspectives. In conjunction, all teacher candidates in our PDS have extensive opportunities for professional development through volunteer experiences, expressing suggestions for improvement and enhancement of the PDS, as well as attending Consortium meetings and exploring possibilities for professional presentations. This poster session will highlight the important role played by teacher candidates in the structure and governance of the Buffalo State College Professional Development School Consortium.

### Presentation Type and Session: Poster IV

## Graduate Leadership in Higher Education

**Elissa Mittendorf**, Creative Studies

Faculty Mentor: Professor Cyndi Burnett, Creative Studies

When entering into my graduate studies, I was disappointed that Buffalo State College did not offer any graduate student organizations. Therefore, over this past semester, I have identified and researched the need for a graduate student leadership organization on Buffalo State College's campus. This presentation will be formed around Mel Rhodes 4 P's of creativity. The final product will be a proposal for the future Graduate Student Senate at Buffalo State College.

### Presentation Type and Session: Poster VII

## Impact of Language in Attracting Girls to Technology Education

**Loreen Hayes**, INT 689: Research Methods

Faculty Mentor: Professor John Earshen, Technology

There is relatively low interest among high school graduates to participate in Science, Technology, Engineering and Math (STEM) programs at the post-secondary level. Of those who do pursue post-secondary STEM programs, a disproportionate number are male. Therefore, it should be the focus of the United States government, state and local education departments and local communities to find ways to reverse this trend (National Academy of Science, 2007). This gender-specific disparity in STEM may be due to a girl's decision not to take Technology and Engineering (T&E) classes in grades 9-12; these courses are considered electives in New York State (NYS BOE, 2007). It is postulated that improved enrollment of girls in high school Technology courses may be enabled by careful re-titling of courses. The question to be addressed in this project is: What alternative titles and projects might be more attractive to girls making elective course decisions. The implications of this study

may positively impact enrollment and retention of girls in the future. This will be accomplished through the administration of a middle school survey instrument providing choices between traditional and modern female-friendly high school course titles and projects.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Incorporating Multimedia in Social Studies Instruction**

**Sara Knapp**, Exceptional Education and **Anna DeBalski**, Childhood Education

Faculty Mentor: Professor Pixita Del Prado Hill, Elementary Education and Reading

Social Studies instruction is a vital component in elementary education. It is also the perfect place for incorporating many different types of multimedia. We have planned a comprehensive 2-3 week unit on Canada focusing on 5 Social Studies themes to be taught at the fifth grade level. The students will learn in a variety of ways including performing and visual arts, technology and children's literature.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Inside the Box: A Look Inside the Minds of Creative Masters**

**Ryan Easttum**, Creative Studies

Faculty Mentor: Professor Cyndi Burnett, Creative Studies

Everybody has a story, but what happens if you never share it or no one ever hears it? Getting a graduate degree is a job in itself. Add in family, personal, and work obligations and you have the perfect storm of creative chaos. Given this format, and especially one that rightfully caters to working professionals, connecting and staying connected with peers in Creative Studies is a difficult task. Graduate students don't always share the luxuries of their undergraduate counterparts - living on or near campus, built-in opportunities to socialize, and numerous targeted activities. So, how's a lonely, little grad student to connect? With that, I hope to educate and connect the department - current students, alumni/alumnae, faculty, and future students - through video interviews of students at the International Center for Studies in Creativity. Everybody has a story and I hope to capture them to share the stories and creativity that are integral to the field and program. We come from all over and from all backgrounds, now you'll see how we're all creative.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Interdisciplinary Art Education: Making Connections**

**Tracy Giblin**, Art Education

Faculty Mentor: Professor Shirley Hayes, Art Education

My research is an exploration of the use and effectiveness of interdisciplinary connections in art. Many people are unaware of the extensive connections art can provide to other subject areas: including science, language arts, history, and even math. I hope to convey the benefits of reaching out across these boundaries in the classroom, especially for the learner. I am also researching the benefits of art education, which tends to be one of the first cuts during times of economic hardship. I am in the process of interviewing teachers from schools around Western New York, compiling past and current research on interdisciplinary connections in art, and putting together lesson ideas that cross the imagined boundaries between art and other subjects.

**Presentation Type and Session:** Poster III

### **The Issues, the Process, the Parties: A Political Guide for Educated Dummies**

**April Margarella**, Creative Studies

Faculty Mentor: Professor Cyndi Burnett, Creative Studies

This project is a simplified guide that introduces the fundamental basics of the American Political System. The content of the book was developed based on the issues (the main topics that our country finds important for voting), process (how elections work) and parties (past and present) that make up a United States election. The guidebook includes anecdotes in each section to merge together humor and facts in an enjoyable way for the reader.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Math in Disguise: A Web-Based Approach to Investigating Math Through Literacy**

**Nicole Berg** and **Emily Marvin**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Harriet Sacks, Elementary Education and Reading and Professor Andrea Guiati, Director, All College Honors Program

How can the anxiety be taken out of Math for discouraged students? By pairing Math with intriguing stories and elaborate pictures that draw their attention, children will experience Math through an alternative perspective. Our approach comes from the philosophy that students learn more effectively through real world applications and connections they make with literature. Through integrating Math with multiple subject areas, our online collection of stories will appeal to students with an array of interests. Come



witness the showcase of our website that motivates students to change their outlook on Math.

**Presentation Type and Session:** Poster VI

### Music and Motions for Unforgettable Learning

**Amy Henchey**, Literacy Specialist and **Ashley Konka**, Early Childhood and Childhood Education

Faculty Mentor: Professor Dianne McCarthy, Elementary Education and Reading

Children's brains respond positively toward kinesthetic activities. Activities that include music, movement, and motions throughout the curriculum will help make children's learning unforgettable. Research has shown that children who are exposed to music develop a strong sense of self-confidence and it improves everyday activities. Our poster shows many easy examples to implement music and movement throughout the curriculum. Church, E. B. (2006). Group Time: Enlivening Literature with Music and Movement. *Early Childhood Today*. 20 (6). Shilling, W (2002). Mathematics, Music, and Movement. *Early Childhood Education Journal*. 29 (3), 179-184. Dance and sing! Music Lessons for kids and parents together. Retrieved January 3, 2009, from Benefits of Music Education Web site: <http://www.danceandsingmusic.com/Benefits.html>

**Presentation Type and Session:** Poster VI

### Play: The New Four Letter Word

**Krystal Bellanti**, Elementary Education and **John McGowan**, Elementary Education

Faculty Mentor: Professor Dianne McCarthy, Elementary Education and Reading

Play: The New Four Letter Word By: Krystal Bellanti & John McGowan Abstract: It seems that in today's educational society, play has almost become a swear word. It is a word rarely spoken, mentioned, or seen in the classroom. However, are educators aware of all the facts about what can enhance student learning? Why do students continue to struggle on performance based tests and lack ownership over their education? Could it possibly be because students are confined to primarily seatwork with a traditional approach to education? As the saying goes "all work and no play makes John [(Jane)] a dull boy [(girl)]." Instead of focusing on what we don't know about children, let's focus on what we do know. Children crave and necessitate adequate time for play. Play in a way provides an inlet/outlet for student learning in the creative sense. If educators incorporate play into learning, children will be inclined to be more cognitively, behaviorally, and interpersonally more successful in the school environment, as well as in the outer community, which one day they will inevitably fully encounter. After conducting research on guided discovery

learning and play in the classrooms, we concluded that if children are exposed to education through play, they will be more successful as students and they will take on a more proactive approach to their individual education experience both inside and outside the classroom setting.

**Presentation Type and Session:** Poster V

### Pre-Service Science Teacher's Experience With Middle School SSSNOW Project

**David Maute**, Science Education and **Scott Silverman**, Science Education

Faculty Mentor: Professor Catherine Lange, Earth Sciences and Science Education

A partnership with nationally recognized middle school sixth-grade science teacher Kenneth Huff that incorporated relationships with the NASA, National Weather Service, Buffalo Museum of Science, Mill Middle School, and the Science Education Department at Buffalo State College. Funding for the project was provided through a Toyota Tapestry Grant to provide materials and equipment. Entitled Project SSSnow, the interdisciplinary project was based on the collection and synthesis of authentic weather and snow data using scientific equipment by sixth graders in a courtyard located within Mill Middle School, part of the Williamsville Central School District. Working side by side as part of the team, Buffalo State Students David Maute and Scott Silverman benefited immensely from their participation and involvement in a variety of ways, including: pedagogical modeling, equipment preparation, and the facilitation of student learning. Our presentation will include a description of the project's impact on our self-efficacy as future science educators actively engaging students in the nature of science.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### Reconnecting Students With Nature

**Brittany McCarty**, Elementary/Exceptional Education and **Trisha Podlaski**, Early Childhood/Childhood Education

Faculty Mentor: Professor Dianne McCarthy, Elementary Education and Reading

Richard Louv has introduced today's society members to the term nature-deficit disorder. He has researched how this disorder is not only affecting students, but is also affecting the future of how communities are built. Too many schools have neglected students need to have a recess period where they can run around and have free play outdoors. So much pressure is put on teachers about testing and assessments that it seems impossible to fit in play time for students. Louv's research shows that just ten minutes outside a day can help reduce the risk of nature-deficit disorder. Our poster session will provide information concerning

nature-deficit disorder. This includes what the disorder is, the consequences it has on our children, and ways that teachers can help to reconnect students with nature. Many suggestions for different outdoor activities are provided. These include field trips, gardening, nature walks, and recess. It is up to teachers to take responsibility for their students well being. Most students spend a greater part of their day in our classrooms.

**Presentation Type and Session:** Poster V

### **Refugees in Buffalo: An Understanding of American Education**

**Jessica Poland**, Individualized Studies

Faculty Mentor: Professor Jill Norvilitis, Psychology

The number of refugee children and youth in the Buffalo public school system continues to grow. Although the children themselves have a hard enough time adjusting to the new rules and curriculum here, the parents don't have it easy either. In conjunction with Journey's End refugee services, we are interested in finding out exactly what refugee parents/guardians know and do not know about the education system in the US. Things that are often taken for granted, such as being able to interpret grades on a report card or helping children with their homework, may not be easy for a refugee. We are in the process of completing interviews with over 20 refugee parents and guardians to assess their understanding of the American educational system. This information will enable Journey's End to better educate these parents so they can assist their children.

**Presentation Type and Session:** Poster I

### **Utilizing Educational Technologies in Your ANGEL Online Courses**

**Leah Sciabarrasi**, Educational Technology

Faculty Mentor: Professor John Thompson, Educational Technology

Educational Technologies can be used to create an exciting online learning environment. Furthermore, there are a plethora of open source educational technologies available for students and faculty. Many of these tools can be used in teaching and taking courses in ANGEL. What are the most influential open source educational technologies available today? What are four ways they can be used in online courses in ANGEL? Most importantly, how can they be used effectively? The project will combine feedback from research, administration, faculty, students and instructional technologists involved in ANGEL online courses. The result will be an open source resource for faculty teaching, and students taking, courses in ANGEL. The final project will be developed and presented by Leah Sciabarrasi, Bryant and Stratton College Online's Instructional Technologist and Buffalo State Educational

Computing Master's student. Those in attendance will gain a further knowledge of open source educational technologies and will learn how they can use the technologies in their own courses.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Utilizing Technology to Reach Diverse Museum Audiences**

**Tracy Gladkowski**, Multidisciplinary/Museum Studies and **Danielle Brooks**, History with Museum Studies

Faculty Mentor: Professor Kathryn H. Leacock, History and Social Studies Education

Museums are an ideal environment for visitors to learn in a personal and individual way. The use of technology allows museums to develop exhibitions and programming that accommodates a variety of learning styles. By understanding that people learn best through a variety of sensory experiences, we will explain how museums use different mediums such as digital collections, online exhibitions and websites, podcasts, cell phone and audio tours, and interactive exhibits to deliver information in a variety of ways. Our presentation will explore how technology can best be utilized to reach a broader audience, as well as enrich communication and education for a museum's diverse community.

**Presentation Type and Session:**

Oral – Education and Problem Solving

### **Utilizing Undergraduate Learning Assistants to Redesign Economics 101**

**Ginger DeMita**, **Ashley Hurd**, **Dana Myers**, **Christina Thomann**, **Kyle Kunkle**, **Rachael Edie**, and **Ashley Jabkuzcack**, ECO 495: Special Project– ECO 101 Tutoring

Faculty Mentor: Professor William Ganley, Economics and Finance

Interactive Learning Styles and Undergraduate Learning Assistants (ULA) is in the process of redesigning a large lecture general education course, "The Economic System", into a hybrid course. The new course attempts to utilize a greater amount of online instructional material and ULAs to provide a greater variety of learning activities for students in the course. The Economic System had traditionally been taught in a lecture format and students were graded solely on their exam scores. The redesigned version of The Economic System supplements the lectures with an online text that includes imbedded videos, online quizzes, study guides, as well as various learning activities led by the ULAs. Students in the redesigned course are evaluated based on their participation in online and in-class activities in addition to their exam scores. The proposed poster presentation will highlight the nature and role of ULAs in this course. The

following areas will be highlighted: Recruitment and Training of ULAs; ULA Educational Background; Creation of an Online Course Text with imbedded videos; Coordination of In-Class Skits, Games, and Activities; Development and Control over Online Quizzes; Creation & Use of Online and In-Class Study Guides; and In-Class Review Sessions.

**Presentation Type and Session:** Poster VII

### **What Makes Russia So Different From the United States in Their Teaching Techniques?**

**Crystal Mailloux**, Earth Sciences

Faculty Mentor: Professor Catherine Lange, Earth Sciences and Science Education

This research pertains to how high school students are able to improve their ability to remember problem solving and mathematic solutions when taught with visual techniques. The focus is on how students in Russia compare to the United States in the quality of remembered data by visual means. The research will be based on an interview with Lana Berim, Ph.D., a mathematics teacher who has taught in several different countries including Russia and is currently teaching in the United States. Results from the interview will be compared to several previous studies. This research will also address how the government's involvement in education influences better grades in Russia and United States. This research can help students apply the results to obtain a better overall knowledge of statistics. Neuroscience explains that the brain allows a person to retain information better if they can see a picture in their mind rather than remembering a paragraph of rules and guidelines. The different hemispheres of the brain interpret different information. The left hemisphere is responsible for mathematical reasoning and stores the information in language format while the right hemisphere stores information in a visual or audio format. Using a combination of both sides (or using the hemisphere that will best remember data for a particular subject) could produce positive results in student knowledge. Knowing information about how the brain works allows us to examine the differences in these two countries' teaching techniques.

**Presentation Type and Session:** Poster VII

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## ***Health, Wellness, and Safety***

### **Are Chlorine Levels in Niagara Falls Household Water During the Winter Within Regulation Standards?**

**Jameieka Price**, Geography

Faculty Mentor: Professor Charlotte Roehm, Geography and Planning, and Buffalo State's Great Lakes Center

Chlorine is an important disinfection process to kill bacteria in municipal water. This research is looking at water from the municipal water treatment plant in Niagara Falls, New York to determine if purifying the water with chlorine poses a threat to Niagara Falls residents' health particularly during the winter/spring season. This research aims to measure the presence of disinfection by-products such as trihalomethanes and haloacetic acids and also the residual chlorine that are known to be carcinogens and can also cause other health problems. Even though laws and regulations have been set forth to constrain the level of by-products, there are still some concerns. I will investigate the effects of chlorinating water by testing the residual and disinfection by-products at thirty different houses primarily in the urban, agricultural, and industrial areas of Niagara Falls by using a Gas Chromatography Coupled to Mass Spectrometer and a digital chlorimeter. These tests will indicate if the levels of water chlorination used by the municipal water treatment plant are negligible or not when dispensed to households in Niagara Falls. I plan on showing examples of samples of water taken and showing the instruments used for measurements. I will also do a poster presentation of maps of the areas being sampled, the potential health effects, a diagram of the processing of raw water into clean water, and a prevention plan.

**Presentation Type and Session:** Poster I

### **Baby Mama Drama**

**Jessica Snyder**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

This investigation was done to supply information on the many issues concerning pregnancy and the prevention of birth defects. The environment as well as one's education plays a vital role in the health of infants. Over 150,000 babies are born with birth defects each year; about half of these cases could have been prevented. The mother needs to take care of herself and become more educated on lifestyle risks that affect pregnancy. Some of these risks include drug and alcohol use. A healthy diet is a must while pregnant; you need well-balanced nutritious meals. Folic acid plays a huge role in women's health and the prevention of neural tube birth defects; such as spina bifida. You can get your

daily intake of folic acid by taking a multi vitamin or prenatal vitamins if you are pregnant. Education is crucial for women to understand how poor prenatal care can cause birth defects. A great reliable source for information on proper prenatal care is WebMD.com. The key for a healthy pregnancy is for women to be educated on proper prenatal care.

**Presentation Type and Session:** Poster II

### **Botanical Medicine**

**Leah Campanile**, NFS 330: Seminar on Complementary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

There are many different kinds of botanical medicines and they also serve many different purposes because there are so many and not enough time to touch on them all the two botanical medicines what will be discussed in the power point are Ginseng and green tea. Even though they are common ones there is still a lot to be known to be learned. What will be discussed throughout the power point are what products Ginseng and Green tea are in and the history of the botanical medicines and advantages and disadvantages. Ginseng it found in many forms Tea, energy drinks, supplements diet pills, it is found in beauty products too. Some advantages of consuming Ginseng are from curing illnesses to aid in digestion, lowers blood pressure, increases stamina and even as simple as keeping the body healthy and strong. There are many green tea products just to name a few beauty products, drinks, ice tea, and diet pills. Green tea was found to reduce the risk of breast and prostate cancer, and also can prevent against cardiovascular disease.

**Presentation Type and Session:** Poster III

### **Cesarean Sections on the Rise Locally: Convenience or Necessity?**

**Shrell Krawczyk**, COM 390: Investigative Reporting

Faculty Mentor: Professor Michael Niman, Communication

**Note:** Complete Abstract in Humanities and Journalism, p. 58

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **College Students' Perception of Body Modification**

**Alisha Shantz, Ashley Simon, and Sarah Traylor**, FTT 355: Research in Fashion Merchandising

Faculty Mentor: Professor Liza Abraham, Technology

Body art has been a prominent part of most cultures for thousands of years. Archaeologists have unearthed clues to the time periods and significance of body art in cultures throughout the world. Today, body art continues to be a pertinent part of culture. The record of body piercing can be traced back to the



ancient times when the primitive tribes and clans practiced this unique art of body modification. Tattooing too has had an intriguing and diverse past. Discoveries, such as tattooed mummy discovered by Sergei Rudenko the Altay Mountains, dates tattooing back several thousand years. In our society, body art was often seen as a sign of rebellion, or as a way to distance oneself from the mainstream. Body piercing was adopted by the hippies in the 1960's and the punk subculture later in the 70's and 80's. Tattoos were worn by people in the military, the prison subculture, and for religious purposes. All of these groups used body art to express who they were and to identify with their group. The objective of this study is to: 1) find out the prevalence of body art (piercing and tattooing) among students at Buffalo State; 2) estimate the number/size of piercings and tattoos students have; 3) establish what influences students to choose to get body art; and 4) to understand how it functions as dress. We will study a random selection of students that currently attend Buffalo State College.

**Presentation Type and Session:** Poster II

### **Confronting Childhood Obesity: Teaching Healthy Habits Young**

**Lindsay Putzbach** and **Rawan Shamaa**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Andrea Guiati, All College Honors Program, Professor Tejaswini Rao, Dietetics and Nutrition, and Professor Donna Hayes, Dietetics and Nutrition

For the first time in decades the life expectancy of the current generation of children is shorter than that of their parents. Why is this phenomenon occurring? One possible explanation is the continued rise in obesity and overweight among children. According to recent statistics, the prevalence of childhood obesity has nearly tripled over the past 30 years. Children are now eating more and exercising less and many communities lack opportunities for physical activity and access to affordable and healthy foods. We will outline some of the many steps that can, and should, be taken by parents to teach healthy lifestyle habits at a young age. As well as some of the efforts that are being made by the government to impede this growing epidemic and give our children a healthy future.

**Presentation Type and Session:** Poster VI

### **Diabetes Costs: An Arm and a Leg**

**Brian Battino**, HEW 411: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Scott Roberts, Health and Wellness

Diabetes is a disease that affects people of all races and ages. Diabetes affects seven percent of all children and eleven percent of individuals over twenty. Diabetes is the seventh leading cause of death, and killed more than seventy two thousand people in 2007. It is especially dangerous because it may lead to many other life

threatening diseases such as heart disease, high cholesterol, and nervous system disease. The many new technological advances such as blood glucose meters and insulin pumps, life is becoming easier. With this new invention called the "real time" system, the investigator believes that researchers have basically eliminated the daily care that needs to be provided. Researchers are now working to improve this system by eliminating human interaction. The improvements will make the "real time" automatic, and be considered a true artificial pancreas. In the next ten years, little daily care will be needed, and living with diabetes will not be a concern. Researchers have eliminated the short-term affects, but the long-term affect will always be a concern. This is why the investigator believes that we need to shift our focus from daily living, to finally finding a cure, and eliminating diabetes.

**Presentation Type and Session:** Poster I

### **Disease and Travel: What Are You Picking Up?**

**Derrek Basile**, HEW 411: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Scott Roberts, Health and Wellness

This investigation will provide information about various diseases worldwide. The most prevalent diseases currently, are AIDS, Measles, Dengue Fever, Malaria, Avian Influenza, and Meningitis. Measles, affects almost 20 million people. AID's alone affects nearly 40 million worldwide. Dengue is the most common subtropical disease with an estimated 2.5 billion people living in areas where these infections are fluent. Malaria accounts for around 1 million deaths annually. Avian influenza, commonly known as the bird flu has swept over Asia. Meningococcal disease is a fatal bacterial infection that has transversely affected Africa. These are just a few of the infectious diseases currently spanning the globe today. It is vital to schedule an appointment with a physician 4-6 weeks prior to leaving the United States. There are many vaccines presently available to people traveling overseas. Checking the cdc.gov website is important in order to learn specific knowledge about a particular destination. One should be equipped with enough knowledge to make a cognitive plan of action in regards to traveling abroad.

**Presentation Type and Session:** Poster II

### **Do You Really Want to Be One Less?**

**Megan Kunecki**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

In 2006 a vaccine called Gardasil entered the market to protect against HPV. Gardasil is a series of three shots given to only females between the ages of 9 and 26. The most common forms of HPV are genital warts and cervical cancer. While HPV is very prevalent, it is also very curable. The CDC states that the body's immune system naturally clears about 90% of those



infected within two years. Since the vaccine has been out, it has caused an astounding number of reported adverse effects. The Gardasil vaccine has allegedly caused 5,021 young girls to visit the emergency room. It has been the cause of 152 life-threatening illnesses, 261 disabilities, and 29 deaths. There have also been reports of the vaccine causing blood clots, strokes, cardiac arrest, hemorrhages, blindness, seizures, and paralysis, as well as many more alarming side effects. The Gardasil vaccine has been found to be causing many severe effects on young girls and women. Frightening health problems such as death, seizures, strokes and blood clots are all resulting from this vaccine. As of now, the FDA should pull Gardasil of the market until its effects are further investigated.

**Presentation Type and Session:** Poster III

### **Eat This, Not That: The No-Diet Weight Loss Solution!**

**Megan Kunecki**, Health and Wellness

Faculty Mentor: Professor Sue Baldwin, Health and Wellness

This poster is based on the best-selling books “Eat This, Not That: Supermarket Survival Guide” and “Eat This, Not That: The No-Diet Weight Loss Solution!” by David Zinckenko (2009). Some foods help to prevent or fight diseases. Other foods help with memory, eyesight, osteoporosis, and the immune system, and still others add important vitamins and minerals to our diets. Knowing the right foods not to eat is just as important as knowing which foods to eat. The trick is to be able to determine which foods fall under each category. Research has shown that consuming foods of different colors have distinctive health benefits. Researchers have also found that certain foods such as spinach, yogurt, tomatoes, carrots, oats, walnuts, blueberries and black beans all have active ingredients that help protect the body. It is recommended that these foods become a staple of our daily diet. Foods such as raspberries, salmon, shrimp, red wine, and garlic are said to have a medicinal affect on the body in that they can stabilize blood sugar, protect the heart, protect the bones, fight against aging, and protect the prostate. Thousands of simple food swaps can save your 10, 20, 30 pounds or more! Making smart food choices can protect the body over time as we age. Adding a few healthy foods into one’s daily diet can have profound, health-enhancing benefits. This information was used in the practice with older adults who recently participated in the Passport to Wellness mall walking program across this area.

**Presentation Type and Session:** Poster VI

### **Energy Drinks: To Drink or Not to Drink?**

**Louis Eve**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

“Energy Drinks” have increased in popularity over the past several years, especially among impressionable teens. Young adults are totally unaware of the high levels of caffeine contained in energy drinks. Energy drinks provide temporary and rapid energy boosts from large amounts of sugar and caffeine. These drinks can provide some people with an exuberant feeling, but may also affect individuals negatively. All energy drinks should indicate health risks including nervousness, anxiety, insomnia, rapid heartbeat, damaged intestines, tremors and signs of dehydration. Fatalities from caffeine intake are extremely rare. In comparison, energy drinks contain 3 times the caffeine (80mg) whereas caffeine in soda contains about 23mg. Three possible solutions for solving excessive consumption of energy drinks include using natural ingredients and consuming sugar-free beverages. In addition, timing assures that you treat your body with nutritious foods therefore avoiding muscular fatigue. Energy drinks can overdose your body with unnecessary sugars resulting in poor physical and mental well-being as your body ages over time.

**Presentation Type and Session:** Poster III

### **An Evaluation of Buffalo State Food Services: Available Nutrients, Vegan Diets, Student Food Preferences, and Campus Meal Consumption**

**Laila Marchini**, Dietetics

Faculty Mentor: Professor Donna Hayes, Dietetics and Nutrition

The purpose of this study was to determine the ability of the State College at Buffalo Dining Services’ to adequately meet the nutrient requirements of Omnivore and Vegan students. Method: 115 students were surveyed to determine dietary preferences and frequency of use of on campus dining services. Two one-week-long menus were developed for vegans and omnivores. The nutrient content of each day was compared to the U.S. Recommended Daily Allowances or RDAs for an 18 year-old female. Results: Results from the student surveys showed 84% of surveyed students consider themselves to be omnivores, 11% vegetarian and 3% vegan, 29% of surveyed students use the campus dining services daily and 23% never eat on campus. Results of the menu development found that the campus dining services was able to meet the needs of a vegan or omnivore student for all nutrients. Conclusion: It is possible for students with vegan diet preferences to meet all recommended nutrient needs while dining exclusively with campus dining services.

**Presentation Type and Session:** Poster VI

## Fit to Fight: The Impact of the MMA Phenomena on Health and Fitness

**Amanda Jurdi**, HEW 411: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Scott Roberts, Health and Wellness

In today's world, being fit is the number one concern on everyone's mind. Participation in cardio classes, using treadmills, and lifting weights are popular trends for most non-athletes. Recently, a new sports phenomenon known as Mixed Martial Arts (MMA) has changed the way the average person looks at working out. Until now, there was a paucity of workout choices for the average person to stay fit. What is remarkable is how MMA styled strength and conditioning training has become popular, even among those who are not MMA fighters. You can find MMA fighter's workouts in magazines, online, and on TV. Watching them train for a fight is almost as popular as the fight itself. MMA has opened the door for functional performance fitness training to find its way into the average person's workout. Since MMA style of training is based on more complex muscle movements; one's workout is done with less time than traditional bodybuilding style workouts. The impact of MMA has also influenced nutrition. Its motto is "lift heavy, eat clean, and looks will follow." Before MMA went mainstream, these types of workouts were reserved for professional athletes only. That's why the popularization of MMA styled strength and conditioning training is so phenomenal.

**Presentation Type and Session:** Poster I

## The Five W's of Melodic Intonation Therapy

**Caralyn Lopez**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Andrea Guiati, Director, All College Honors Program and Professor Deborah Insalaco, Speech Language Pathology

Have you ever heard of Melodic Intonation Therapy? Do not be discouraged, most people have never heard of it before, unless they know someone who has suffered a stroke or is involved in the therapy field. Melodic Intonation Therapy is a popular treatment method for individuals who have Broca's Aphasia, a type of non-fluent aphasia that is caused by a lesion in the left hemisphere of the frontal lobe. Not everyone who suffers a stroke is a candidate for Melodic Intonation Therapy. The goal of this project is to explain Melodic Intonation Therapy by answering six simple questions. Who, what, where, when, and why are the beginning steps to understanding the significance of therapy along with the important role it will play as the occurrence of strokes increases.

**Presentation Type and Session:** Poster VIII

## Herbs as Dietary Supplements

**Chelsey Becker**, NFS 330: Seminar on Complementary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

Using herbs as a dietary supplement has become a debated issue amongst medical experts and dietitians. Although there have been several studies conducted to analyze the effectiveness of such products, the quantity and sometimes quality of this research is limited. Therefore, doubts and reservations have risen when it comes to prescribing these products to patients amongst various professionals. Although many professionals are weary when it comes to prescribing herbs as dietary supplements, there are reports that some herbs do indeed have health benefits. Many herbal supplements grace the market today, available at various health food shops and grocery stores, yet there is a select handful of those that have been documented to definitely serve a medicinal purpose. A few examples include garlic, thyme, black cohosh, basil, ginkgo biloba, ginger, and several others. These herbs can help treat various health issues, ranging from difficulties associated with premenstrual syndrome to prevention of heart disease. However, even though these herbs have documented health purposes, they do not come without any possible negative reactions either. People react differently to different products, and it is crucial to understand all the possibilities and safety concerns when taking any health-related product.

**Presentation Type and Session:** Poster III

## Hormonal Therapy: Human Growth Hormone and Hormone Replacement Therapy for Anti-Aging

**Blair Dawson**, NFS 330: Seminar on Complementary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

In today's society everyone is looking for the latest trend, the best diet, and how to look and feel younger. There are so many gimmicks out there that guarantee to add years to your life, increase your sex drive, and make you feel younger than ever before. Although these may work temporarily, we must actually look at the biochemical side of aging as a disease. As we age, our hormone production decreases, the first hormone to go is melatonin, which helps the body naturally fall asleep. The next hormone is the human growth hormone, which stimulates many bodily functions including sex hormones. Many men believe that only women go through that big "change of life" called menopause but they are sadly mistaken. During their mid-thirties, men go through a form of menopause called andropause. Men have, among much functional impairment, a loss of strength, increased body fat, decreased muscles mass, decreased libido called "couch potato", etc. Women encounter some of the same

symptoms of menopause, which includes osteoporosis, memory loss, hot flashes, and mood swings. Replacing hormones to levels of a normal 26 year old may reverse some of these symptoms. This presentation will discuss the risks, benefits and long-term effects that hormonal replacement therapy has on the body. It will explain the process one might go through to get back their stamina and the vibrancy of life. This seminar will tell the history of hormonal growth therapy and the many diseases associated with this therapy. It will answer the important questions many seniors may have, such as why do we age, why is age considered a disease, are there safer/easier replacements for HRT, and are you a good candidate for hormonal replacement therapy. This presentation may give hope to those people suffering from the disease of aging.

**Presentation Type and Session:** Poster II

### **The Impact of Antioxidants on Anti-Aging**

**Megan Braun**, NFS 330: Seminar on Complementary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

Aging is the process by which the body changes over time and continues throughout life. One theory of aging states that most changes are due to damage caused by free radicals. Build up of free radicals in vital biological structures can interfere with functions and may cause death. While it is not possible to stop the aging process, it is possible to prevent chronic diseases (which furthers the aging process) with a diet rich in antioxidants. Natural antioxidants are substances found in food that decrease the detrimental effects of free radicals on the human body. Antioxidants donate electrons to free radicals to neutralize. Good sources of antioxidants include vitamins C, E, A, carotenoids: lutein, lycopene, and beta carotene, and the mineral selenium. These sources can help strengthen the immune system, help promote cardiovascular health, promote vision and the growth of bones and teeth, as well as protecting against many types of cancer.

**Presentation Type and Session:** Poster II

### **Inside the Lives of Dancers**

**Marissa Gibbons**, Communication

Faculty Mentor: Professor Tim O'Shei, Communication

This presentation follows a variety of high-level dancers and focuses on how wellness affects their careers. This includes body image, experiences with parents, teachers/mentors and fellow dancers, and spirituality. This work will show how the personal aspects of a dancer's life affects their performance, and how a dancer's performance can affect their off-stage life.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Is There a Kryptonite to the Infamous Superbug?**

**Jelani James**, HEW 411: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Scott Roberts, Health and Wellness

MRSA (Methicillin resistant Staphylococcus aureus) is a type of staph bacterium that causes infections throughout the body. Known as a “superbug,” it is a germ that is resistant to most, nearly all types of antibiotics. Though most staph bacteria such as MRSA are infectious, it is commonly carried on the skin or in the nose of many people. MRSA is considered dangerous because it enters the body through abrasions or contaminated items. Individuals such as athletes or health-care personnel are extremely vulnerable. It is one of the most common causes of pneumonia, skin and bloodstream infections in the United States, which can lead to death. MRSA is becoming more perilous because it is occurring in the community setting amongst the general population. MRSA is caused by many decades of doctors who have over prescribed antibiotics in order to treat infections. The germs that have survived developed a robust resistance to the antibiotics. Today, common practices of hygiene and cleanliness are one method of fighting this deadly disease. Investigators do not think this is sufficient enough to stop the spreading of this fatal bacterium. Like every other fatal disease, prevention is always essential. However, this method is inconsistent because there is always a possibility of someone not practicing proper etiquette.

**Presentation Type and Session:** Poster I

### **It's a Vagina, Not a Vending Machine!**

**Steve Scrocchi**, HEW 411: Critical Issues in Health and Wellness  
Faculty Mentor: Professor Scott Roberts, Health and Wellness

When you hear in the news of a woman having octuplets you are shocked. One becomes aggravated when thinking of tax dollars being spent on her huge family. Nadya is a single mother, unemployed living with her mother and on disability. Her doctor is under review for allowing this unemployed single mother of 6 to have 8 more children. The part that is really “head scratching” is all 14 children are from in vitro fertilization. The doctor ignored guidelines and implanted above the recommended amount of embryos. Protocol dictates women under 35 should only have one or two embryos transplanted. To care for all the children up to age 18 it is estimated at 20 million dollars. The state of California now has to foot the bill during one of the country's toughest economic times. There is not a good support system to help her. After this debacle, regulations at IVF clinics should be stricter. This investigator recommends psychological and emotional exams should be passed, and a means of financial support should be provided. Much smarter decisions need to be made by future parents and their doctors.

**Presentation Type and Session:** Poster I

## It's Not a Dream, It's Neem

**Megan McCormack**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

Is it possible to imagine one herb for all medicinal needs? For over 4000 years people in India have known the Neem tree to be their "village pharmacy". This is due to its powerful strength to cure disorders and diseases ranging from malaria, ulcers, dry skin and bad teeth. Until recently, many western doctors have overlooked the benefits of Neem, claimed its powers were only a myth. Modern scientists have begun studies to find the truth within this miracle herb. More than 100 pharmacologically active substances have been discovered throughout every part of the Neem tree. The seeds, roots, leaves, and bark contain compounds with proven antiviral, anti-inflammatory, antiseptic, antifungal, antipyretic, and anti-ulcer uses. Traditional medical approaches when treating illness and disease can encounter drug resistance and harsh side effects. Neem is all natural and according to recent studies and has few reported side effects. So far research has shown many medicinal attributes of Neem to be a success. If further research remains successful, Neem may be the natural answer to many global health problems.

**Presentation Type and Session:** Poster III

## Live a Berry Good Life

**Dallas Bell III**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

The Brazilian Acai (ah-SAH'-ee) berry is one of the most popular fruits in health, science, and marketing today. This berry is very unique; in fact it can only be grown in the Amazon rainforest of South America. Acai has been in Brazil for hundreds of years providing natives with a sense of strength, energy, and high nutritional content. Many wonder what makes the Acai berry the world's greatest super food. With all of the magnificent health factors the Acai berry carries, it may be the cure for many diseases. Research will help determine how the Acai berry can help make human life better. Acai berry is viewed as the greatest super food because of its high nutritional value. Studies have shown that one berry contains protein, antioxidants, fiber, and numerous minerals. In the berry's preserved form, it killed cancer cells in a laboratory and may be the first step in developing a cure for cancer. Investigation done on the Acai berry has concluded that with its high nutritional value, it can sustain human life. The Acai berry is definitely capable of being used as a cure for many diseases including cancer. The investigation found that the Acai berry is fairly new to the western science world. The berry does have some promising early results, however it is important to look for the long-term results as well.

**Presentation Type and Session:** Poster III

## The Often Ignored Epidemic: Bullying in Today's Schools

**Jonathan Skender**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

Bullying has become a major problem in today's school communities. The ever-growing emphasis on beauty, athleticism and heterosexuality causes many young adults to fall prey to this behavior. Bullying is the most common form of violence in our society. From 1994 to 1999, there were 253 violent school deaths. Fifty-one of these were the result of multiple death events. Over two-thirds of students believe that schools respond poorly to bullying, with a high majority believing that administrator and teacher help is infrequent and/or ineffective. The economic downturn affecting our country causes many to believe that implementing anti-bullying programs is costly and unnecessary. Bullying is not an issue that can be taken lightly. Schools and organizations should push for all levels of funding for research, development and testing of new programs. Nearly one-fourth of school officials feel it is not important to intervene in bullying situations. Early intervention, teacher training and setting up a positive school environment are paramount to ending this crisis. The approach must be a multi-tier attack. If the proper steps are not taken to combat this epidemic, children will not be able to flourish toward their fullest potential.

**Presentation Type and Session:** Poster I

## Potters Wellness: An Exploration of Stretches and Exercises to Prevent Injury

**Chad Pentoney**, Design (ceramics)

Faculty Mentor: Professor Robert Wood, Design

Pottery making can be very relaxing and a big stress reliever, but it can also be very wearing on one's body. As a potter, I have begun throwing larger with upwards of 30-40 pounds of clay at a time that creates stress on my joints and muscles. I will be working with a chiropractor, massage therapist and physical therapist to develop exercises that will prevent long term injury to my body. I also want to share this information with my colleagues on the risks and measures one should take to prevent long-term injury.

**Presentation Type and Session:** Poster Session I



### **Self-Monitoring Blood Pressure and Walking Program: Translating Research Into Practice**

**Ashley St. Onge**, Health and Wellness

Faculty Mentor: Professor Sue Baldwin, Health and Wellness

The number of sedentary people is increasing at a rapid pace. The rising price of health care, due to lack of physical activity and chronic illness has many employers wondering what the effects will be on the future status and viability of their businesses. This program evaluated the effectiveness of an 8-week walking and blood pressure self-monitoring, worksite health promotion program conducted at a Western New York education facility. The program was previously implemented in a Western Pennsylvania school district and is designed to be a template for other employers to replicate. The research project involved 115 employees at the worksite. Employees completed a needs assessment six months prior to this health promotion program. Employee physical activity and stages of readiness regarding physical activity and blood pressure behaviors were assessed utilizing the International Physical Activity Questionnaire (IPAQ) and the Stages of Change Model. The IPAQ assessed employees' perceived levels of physical activity and placed participants in low, moderate, or vigorous physical activity categories pre- and post-intervention. One of the program goals at post-test was to move employees to the next category of physical activity involvement based on the IPAQ and Stages of Change Model. Employees were given pedometers and encouraged to walk 10,000 steps per day and were encouraged to self-monitor their blood pressure at least once a week. Participants received incentives for program participation. To promote self-monitoring of employee blood pressure, educational "how to" stations were created. These stations were then incorporated into all four company sites. In addition to step and blood pressure monitoring, two randomly selected sites received four, 30 minute interactive, educational workshops.

#### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Sleep Apnea: A Rising Disorder**

**Brittany Waters**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

Awareness of sleep apnea as a syndrome has become an issue in the United States. Sleep apnea is when the breathing is interrupted during ones' sleep. A significant number of people are living with this syndrome and are not treated. These people stop breathing repeatedly about 30 times a night. Since our country has such high rates of obesity, eating healthy could have an effect on ones' sleeping habits. Obesity is a number one factor that is

considered when being diagnosed with sleep apnea. The first thing that a health professional will recommend is to watch your diet. Considering that we are a fast food nation, eating healthy might be all it takes to limit the incidence of sleep apnea. There could be a genetic link to sleep apnea as well. If you know that other people in your family have sleep apnea, you may have the same problem. Medical professionals have evidence that genetics influence chances of obtaining obstructive sleep apnea. Overall, sleep apnea will become more common as time goes on. A great deal of people have sleep apnea occur and do not know they have the condition. Hopefully, sleep apnea will be able to be recognized a lot sooner in a person's life. In the near future there should be more research done on sleeping problems, and this condition.

**Presentation Type and Session:** Poster II

### **St. John's Wort**

**Brianna Marrin**, NFS 330: Seminar on Complementary and Alternative Nutrition

Faculty Mentor: Professor Suk Oh, Dietetics and Nutrition

St. John's wort comes from the flowering tops of a perennial plant called hypericum perforatum L. The flowering tops are used to prepare teas and tablets containing concentrated extracts. The most common use for St. John's wort today is for the treatment of anxiety and depression. The recommended dosage for St. John's wort is 300-1800mg/day, divided into three doses. There are several adverse effects that result from taking St. John's wort. Side effects include dry mouth, dizziness, gastrointestinal symptoms, fatigue, headache, and skin reactions. St. John's wort may also interact with other drugs and affect the way the body processes or breaks down many drugs. The types of drugs that can be affected are antidepressants, birth control pills, cyclosporine, digoxin, indinavir, irinotecan, and warfarin. Short term studies, lasting 1-3 months, suggest that St. John's wort is more effective than a placebo and equally effective as tricyclic antidepressants when it comes to treating mild-to-moderate major depression. One study from the British Medical Journal proved this by comparing the effectiveness and tolerability of St. John's wort with imipramine, a commonly used tricyclic antidepressant. Overall, at the end of 6 weeks of treatment, it was said that hypericum and imipramine were therapeutic equivalents.

**Presentation Type and Session:** Poster II

### **Testosterone: The Answer?**

**Michael Gloss**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

Testosterone production can decrease 50% shortly after age 50. Recent estimates show approximately 13 million men in the U.S. experience testosterone deficiency and less than 10% receive

treatment for the condition. A low testosterone count can lead to loss of energy, diminished libido, erectile dysfunction, muscle weakness, and mood disorders. In fact, recent research has shown that about 30% of men diagnosed with depression may actually have hypogonadism (low testosterone). A 1996 study found virtually no adverse effects when anabolic steroids in the form of testosterone, were administered at dosages of 600 mgs. per week for ten weeks. The 600 mgs. is about 6 times the natural replacement dosage. If taken in mega doses, testosterone can be very dangerous. It has been linked to accelerated growth of cancer, blood clots, testicular shrinkage, accelerated baldness, and risk of heart disease. Due to the 1990 Anabolic Steroid Act, which lists steroids (testosterone) as controlled substances, it has become very difficult for scientists to study these potential life-savers. The fact is men with low testosterone levels are in serious danger of health risks. There are treatments out there, but are they worth the risk?

**Presentation Type and Session:** Poster I

### **Wii Fit or Wii Fat?**

**Whitney Yaksich**, HEW 411: Critical Issues in Health and Wellness

Faculty Mentor: Professor Scott Roberts, Health and Wellness

Fitness and staying healthy is a major concern for many people today. Wii Fit is a video game by Nintendo that gets the player active and body-conscious. It offers yoga, strength training, aerobics and balance drills. The game is questionable because body mass index is not a good indicator of one's fitness, and that is mainly what the game measures. This investigation focuses on the legitimacy of Wii Fit as an exercise tool. Early studies show that Wii Fit is claimed to be a very reasonable alternative to a gym membership relative to cost, distance, and time constraints. All of the games require some physical activity, whether it is to swing an arm, bat or to throw a bowling ball. Wii Fit takes fitness to another level by keeping track of a player's progress and setting goals for weight loss or BMI reduction. It truly has something for everyone at every level of ability, which is probably why it is such a hit with senior citizens. Wii Fit incorporates fitness with interactive games, which seems to be a great way to make getting fit fun. The game may be more beneficial if the workouts are organized into one routine, as opposed to going back to every individual activity.

**Presentation Type and Session:** Poster III

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## *Humanities and Journalism*

### **Arrest or Kidnapping: What Happened to Syaed Ali and His Family?**

**Sandra Perrin**, COM 390: Investigative Reporting  
Faculty Mentor: Professor Michael Niman, Communication

When I first read about what happened to Syaed Ali, I was upset for him and his family. Their story is what motivated me to investigate what happened when the Buffalo Police came to his house and confiscated his and his relatives' personal property. I collected all the secondary data written about him and acquired the search warrant that failed to list many confiscated items. Geoff Kelly, the editor of Artvoice, instructed me to write a human-interest piece on Syaed's family in tandem with the paper's coverage of the legal and political side of the story. He supplied me with Ali's contact information. Syaed Ali was the target of the search warrant, but his family was also victimized and almost four months has gone by, yet their confiscated belongings have not been returned to them. For my project, I am documenting the details of this story and writing it up on narrative form.

#### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Britney Spears: Pop Icon**

**Brittany Jackson-Machmer**, Media Production and **Tiffany Monde**, Journalism

Faculty Mentor: Professor Tim O'Shei, Communication

This project examines Britney Spears' influence as a pop culture icon since the 1998 release of her Lolita-like single and video, "...Baby One More Time." Using the framework of mystification theory, the researchers convey how the media built the teenage Spears into a musical sex symbol whose influence was felt across the Western world in households with adolescent girls. The researchers also tap into demystification theory to show how in more recent years the media played a role in deconstructing her iconic status. Finally the researchers explore whether mystification theory will take hold once again as Spears attempts to rebuild her public image, and with it her career. This project includes both a written analysis of Spears' image as a fashion and sex symbol and a video that highlights key moments in her career through the perspective of music industry insiders and Generation Y fans.

#### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Cesarean Sections on the Rise Locally: Convenience or Necessity?**

**Shrell Krawczyk**, COM 390: Investigative Reporting  
Faculty Mentor: Professor Michael Niman, Communication

Cesarean sections are increasing nationwide despite recommendations from the World Health Organization and other medical research groups to keep their occurrence to a minimum. Also known as a C-section, this operation can be life saving to a mother and baby when performed in the case of an emergency. However, it appears more doctors are performing cesareans as a means of convenience, for both themselves and their patient's. A cesarean is major abdominal surgery and poses various physical health risks as well as emotional risks when it's performed unexpectedly and/or without good reason. Through interviews and discussions with targeted doctors in the area as well as with various birthing women, I will explore the motivations behind the high cesarean rate in our Western New York community. I am analyzing statistical data on cesarean rates in the area hospitals along with related documentation. I plan to present an explanation and potential discussion of these findings at the presentation.

#### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Documentary: Habitat for Humanity in Portugal**

**Charles Paddock**, Technology Education  
Faculty Mentor: Professor Robert Delprino, Psychology

This presentation will consist of a documentary filmed on site in Braga, Portugal of the activities of a group of international Habitat for Humanity volunteers. The documentary explains the mission and goals of Habitat for Humanity through interviews with local and international Habitat coordinators and volunteers. The documentary tells the story of how a group of strangers from around the world met and bonded to create a home for a family in need. The documentary also reveals not only how the recipient family benefited from the experience, but also how a group of volunteers benefited and grew from the experience and created lasting friendships.

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

### **The Effects of Automatic Withdrawals on College Student's Accounts**

**Patrick Martin**, COM 390: Investigative Reporting  
Faculty Mentor: Professor Michael Niman, Communication

I am interviewing students who have established auto-withdrawal accounts for bill payments in order to see what the consequences are for students who do not have adequate funds in their accounts, as well as the repercussions accessed by banks

for overdrawn accounts and the late fee penalties assessed by the companies accepting payment. I am interviewing multiple students who have had issues with this type of payment, as well as students who have not had any problems. I will interview representatives from several companies (Geico, DirecTV, Progressive and more) and find out what their policy is when such a 'not sufficient funds' (NSF) occurs, as well as what happens when this gets to be a recurring problem. I will also interview multiple representatives from local banks to see what the banks policy is for NSF, and recurring NSF.

### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Eighteen to Life for Stealing a Camera: Investigating a Suspected Miscarriage of Justice**

**Olabusayo Soetan** and **Shawn Kline**, COM 390:

Investigative Reporting

Faculty Mentor: Professor Michael Niman, Communication

Mitchell Montgomery was arrested in 1997 and charged with climbing through an open window into an empty apartment and stealing a UB student's camera. He was arrested before the crime was reported and convicted of Burglary. With two similar prior burglary convictions, and no prior convictions involving violence or the threat of violence, Montgomery was sentenced to an 18 year to life prison term. This project involves investigating an apparent sentencing disparity, suspected incompetent counsel on the part of a court appointed defense attorney, and what appears to be a false charge of assault on a police officer who may have suffered a boxer's fracture on his finger. So far the team has learned that no camera was ever placed into evidence, and the story concerning the arresting officer's injury is not supported by the available evidence. Mitchell is currently serving the twelfth year of his sentence at Wende State Prison.

### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **The Exile and Home**

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

Faculty Mentors: Professor Laurence Shine, English and Professor Andrea Guiati, Director, All College Honors Program

Walking the streets of Dublin, Ireland, I contemplated Joyce's verse about growing into adulthood. As I observed the passers-by on the streets and visited sacred sites, I sensed the restless nature of Ireland's most esteemed writer. I slowly realized that James Joyce's wandering nature, reflected both in his literary works and in his life, seem to center around his Catholic upbringing. Raised a Roman Catholic, James Joyce eventually rejected the religion and became an atheist. Joyce and his future wife, Nora, went into

self-imposed exile in Trieste. As my feet stumbled over the same stones that James Joyce crossed, I did not know that the Dublin Gate was the entrance to a labyrinth. This labyrinth took me to the Andes Mountains of Peru, the golden stone Cathedrals of Spain, the Moroccan seacoasts, and to a small apartment in London. My travels led me through cities in four other countries and introduced me to other exiled individuals such as Cesár Vallejo, Abderraman I, and Miguel de Unamuno. The histories of these exiled individuals seem to center around personal and ideological debate in the realms of religion and politics. These cities seemed connected in history and language through our imperial past. The more time I spent in each place, the more evident that these mirrored images were skewed. Catholicism, the dominant religion in Latin America, Europe, and in parts of the United States, such as Buffalo and other industrial cities and ports, share the same Holy Book. However, as I found in my individual experience, they differed greatly. By studying the lives of these individuals, I will unravel the chords that connect and divide them in history. I will also examine the desire for immortality in each of these distinctive people, and how they realized their immortality within their lives.

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

### **An Exploration of Radicalized Romantic Rudiments Present in "Song of Myself"**

**Lauren Kochel**, Secondary English Education

Faculty Mentor: Professor Peter Ramos, English

In this analytical essay, I discuss a selection of literary elements characteristic of the Romantic Movement, as they occur in the various works by Ralph Waldo Emerson and Henry David Thoreau. The ultimate purpose of this study is to illustrate how these ideals are also present in Walt Whitman's "Song of Myself;" however, in this poem, they are rendered in such a fashion that they appear heightened, transfigured, and intensified. Specifically, I explore Emerson's endorsement of contradiction (and the images of cycles that result in the works at hand), the Thoreauvian belief in the connection between the physical and metaphysical, and the Emersonian notion that one should obey and trust in beliefs that begin as whims of his heart. I will demonstrate how Whitman has "alchemized" these concepts in his piece.

### **Presentation Type and Session:**

Oral – Humanities



### **History of Canadian/US Border: Buffalo, Detroit, and Vancouver**

**William Dickerson**, French

Faculty Mentor: Professor Rafika Merini, Modern and Classical Languages

**Note:** Complete Abstract in Social Sciences, p. 81

**Presentation Type and Session:**

Oral – Social/Political Science

### **Identities in Exile: Examining Tension and Conflict Between Haitian and Dominican Immigrants in New York City**

**Huewayne Watson**, History

Faculty Mentor: Professor Aimable Twagilimana, English

**Note:** Complete Abstract in Social Sciences, p. 82

**Presentation Type and Session:**

Oral – Social/Political Science

### **The Imbalance of Power Distributed in Society Based on Dystopian Fiction**

**Tynesha Davis**, English

Faculty Mentor: Professor Theresa Harris-Tigg, English

Utopia is an ideal, nonexistent political and social way of life. Dystopia is the opposite of utopia and applies to works of fiction that represent a very unpleasant imaginary world in which tendencies of our present social, political, and technological order are projected into a disastrous future culmination. More specifically, this literature contains an element of social and political criticism of contemporary western society. The three novels that most clearly embody these particular themes of dystopia are 1984 by George Orwell, Brave New World by Aldous Huxley, and We by Yevgeny Zamyatin. The power structures within the societies in each text are imbalanced and as a result serve as the capital form of dystopia. Two theorists who describe some of the elements of power distribution are Louis Althusser, and Michel Foucault and the foundation of each theorist is based on Karl Marx's theories. This literary analysis will give a more coherent understanding of some of the problems that shape how mass of individuals within dystopian societies can be conditioned to fear, to be complacent, and to form their individual mental prison system. This will be done through analyzing the power structure in each dystopian text and showing how each relationship of the authority figures and institutions of power oppress their subordinate citizens.

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

### **Inside the Lives of Dancers**

**Marissa Gibbons**, Communication

Faculty Mentor: Professor Tim O'Shei, Communication

**Note:** Complete Abstract in Health, Wellness and Safety, p. 54

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Literacy: A Ticket to Success**

**Katie McGowan**, Journalism

Faculty Mentor: Professor William Raffel, Communication

This series of five television news stories explains the importance of literacy and the challenges posed by illiteracy. Installments focus on the importance of reading skills among adults and children, how technology is impacting children's reading abilities, how parents' lifestyles influence their children's academic achievement, and several organizations working to promote literacy in Western New York. Their preparation used the journalistic process of gathering background information before interviewing teachers, parents, children, members of non-profit organizations, and literacy experts. To accompany excerpts from interviews, a video camera was used to capture sounds and images. Scripts were written and recorded before the news stories were assembled using non-linear editing software. I will introduce and play the series in its entirety to show the experiences of people overcoming illiteracy.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **The Nature of Technology in "The Great Gatsby"**

**Caitlin Hogan-Lazar**, English

Faculty Mentor: Professor Peter Ramos, English

Much of the writing of the Modernist period can be seen as a reaction to the devastation witnessed during World War I. The use of technology for destruction rather than construction introduced doubt whether scientific advances were actually progressive. This skepticism is illustrated in F. Scott Fitzgerald's 1925 novel, The Great Gatsby. Fitzgerald uses various relatively recent inventions, such as electricity and the telephone, to demonstrate the cold, indiscriminate, and ultimately sinister potential uses of technological advances. In the novel, the most compelling example of volatile technology is the automobile. I will discuss five incidents of escalating violence revolving around the automobile. The damage sustained in these incidents is not necessarily the fault of the machinery, but a combination of the new technology and the moral natures of the people operating the machinery. The cars are widely available, popular, and volatile tools at the disposal of anyone who can purchase one. When The Great Gatsby's wealthy, careless and irresponsible characters are in control of

the machines, the harm inflicted ranges from the loss of a button to vehicular manslaughter. I will explore the direct link in these incidents between the lack of morality on the part of the driver and the amount of damage caused.

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

### **Rebellion in Ireland: Why Did Hugh O’Neill Challenge the Tudor Monarchy?**

**Shannon O’Sullivan**, Journalism and History

Faculty Mentor: Professor Andrew Nicholls, History and Social Studies Education

The Nine Years War in Ireland, also known as Tyrone’s Rebellion, was not only the largest military conflict in the Elizabethan period, but marked a turning point for Anglo-Irish relations. The war took place at the end of Elizabeth I’s reign from 1594 to 1603, and was mainly fought in the northern province of Ulster. The rebellion began with the earl of Tyrone, Hugh O’Neill, who along with his allies, which would eventually include Catholic Spain, resisted the assertion of English authority and the subsequent spread of Protestantism in Ulster. Although ultimately unsuccessful in achieving Irish sovereignty, it proved to be one of the most noted challenges to royal authority in the Tudor period. In terms of historiography, the accounts and interpretations of the Nine Years War vary and can be at times controversial, especially in regard to the character of Hugh O’Neill. Through my research, I will determine O’Neill’s primary aim in leading the rebellion against the Tudor monarchy. Was he on a quest for personal power, a staunch defender of the Catholic faith, or attempting to create a new Irish nation? Historians have come to various conclusions, but I predict the common denominator among his motivations is his political opportunism.

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

### **Sometimes They Are Forgotten: Investigating Police Response to Children Left in Cars**

**Kari Sumner**, COM 390: Investigative Reporting

Faculty Mentor: Professor Michael Niman, Communication

I am studying the phenomena of children left in cars and the police response to this abuse. Toward that end I have been researching primary data such as articles, talking to Assistant District Attorneys, Police Officials and Hospital representatives to get records and data on these types of crimes. I want to know if the parents tend to be properly prosecuted, how many children have died because of heat exhaustion, and how many have complications because of being left in the cars.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Trauma on the Train: A Case of NFTA Police Brutality**

**Shannon O’Sullivan**, COM 390: Investigative Reporting

Faculty Mentor: Professor Michael Niman, Communication

Law enforcement officers are entrusted with the power and responsibility of serving and protecting the public. Our social order and sometimes our very lives depend on them to fulfill their duties responsibly and ethically. However, what consequences do police officers face when their conduct enters the realm of corruption? Buffalo State College alumna Kara McKinney has learned firsthand just how difficult it is for victims of police brutality to get the justice they deserve. On January 5, the first Monday following the NFTA rate hike, McKinney planned on riding Metro Rail after work to the gym. She rides the subway regularly, and typically has exact change. However, being \$0.25 short would cost her more than the typical fine. By the end of the evening, NFTA officer David Capretto would verbally harass, physically assault and arrest McKinney for not having her ticket. Her testimony is harrowing, and the scar from the stitches in her eyebrow and the photos of her just after she was assaulted are shocking. By the end of the ordeal, which lasted several hours, McKinney would have all charges dropped and the assurance from Capretto that this incident would all go away. However, McKinney is determined to bring Capretto to justice. Through thorough research of the incident, ranging from interviews to relevant documents to filing a Freedom of Information Act request for the surveillance video of the incident, I will conclude that McKinney is a victim of police brutality.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **“We Didn’t Do It”: USG and the Camp Weekend Accusations**

**Amanda Hernandez**, COM 390: Investigative Reporting

Faculty Mentor: Professor Michael Niman, Communication

Last semester a USG funded student organization was accused of damaging USG’s student-owned campsite. The consequence of the accusation was a decrease in the organization’s budget as well as the imposition of punitive community service on its members. Worse, the organization was also on the verge of being unrecognized. My research involves authenticating this accusation and determining what really happened that weekend. My hypothesis is that the accusations are unfounded. If my research backs up this hypothesis, then it will serve to dismiss the controversial accusations and harmonize the relationship between the organization and USG.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

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## ***Physical Geography, Science, and Mathematics***

### **Adsorption Isotherms for a Planar Slit Between Non-Identical Solid Walls**

**Joe Crawford**, Mathematics and **Mark Lojacono**, Biology  
Faculty Mentor: Professor Svetlana Berim, Mathematics

Adsorption of a fluid in a slit between parallel chemically homogenous solid walls depends on temperature, chemical potential of a reservoir of fluid molecules, and on the parameters of the intermolecular fluid-fluid and fluid-solid interactions. The purpose of the present study is to understand how the amount of fluid adsorbed depends on the chemical potential and nature of the walls of the slit. While parameters of intermolecular interaction are constant for a given composition of walls and a given fluid, the chemical potential ( $\mu$ ) and temperature can be easily changed in real situations. In the present study, the  $\mu$ -dependence of argon adsorption in the slit with walls composed of different materials is considered on the basis of the density functional theory. It is assumed that one of the walls is made from the solid CO<sub>2</sub> and the second wall differs from the first only in regards to the energy parameter, which characterizes interaction between molecules of the fluid and solid. At given temperature and various values of chemical potential, the fluid density distributions of argon are calculated as a function of the distance from one of the walls by numerical solution of the non-linear Euler-Lagrange equation. Then the amount of adsorbed fluid was estimated and analyzed as function of the chemical potential. Calculations were performed for several compositions of the second wall.

**Presentation Type and Session:** Poster VII

### **Air Quality on Campus: Friend or Foe?**

**Rachael Smith** and **Shawn Eckert**, GES 460: Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

This research is being conducted in order to compare the air quality of different buildings on the Buffalo State College Campus. We believe that the research will show that administrative buildings have a higher quality of air than classroom buildings and residency buildings. The research will also show the difference in air quality in new buildings, compared to those that are older. We will be collecting both particulate matter and pump test air samples for six different buildings on campus. The particulate matter testing will give us the opportunity to visually identify large particles. The air samples will test for specific levels of Ammonia, Benzene, and Carbon Monoxide. We choose

these contaminants for a few reasons. Carbon Monoxide is the most common cause of poisoning death in the United States and Benzene is a known carcinogen in humans. Ammonia is one of the most highly produced inorganic chemicals and is found in many of our household products. When we are finished collecting our data, we believe we that these chemicals will show a higher reading in the classroom and residency buildings than in the administrative buildings. The buildings that we will be testing include two administrative buildings, Moot Hall and South Wing; two classroom buildings, the Science Building and the Classroom Building; and two residency buildings, Porter Hall and Tower Three. We will be placing two sets of particulate matter testing equipment in each room, in two or three rooms throughout the building. The rooms being compared will be as similar as possible. For example, when comparing a room in the Science Building to a room in the Classroom Building, they will be similar in size and set up, including what particular activities the room is used for.

**Presentation Type and Session:** Poster VIII

### **Analyzing Foliation Intersection Axes (FIAs) From the Appalachian Mountains With World Expert in Australia**

**Peter Nyznyk**, Geology

Faculty Mentors: Professor Bettina Martinez-Hackert Earth Sciences and Science Education and Professor Gary Solar, Earth Sciences and Science Education

Foliation intersection axes (FIAs) are fold axes defined by inclusion trails in porphyroblastic metamorphic rocks that represent changes in symmetry across the axes. The inclusion trails act as the recorded for the foliation intersection axes. The Appalachian region in the northeastern part of the United States provides a wide distribution of metamorphic rocks that contain inclusion trails within the porphyroblasts. These metamorphic rocks in the Appalachian region contain porphyroblasts that may have grown during the Taconic, Acadia, and Alleghanian mountain building periods that range from 500 to 300 million years ago. These rocks containing FIAs are ideal to help determine deformation and metamorphic processes and whether porphyroblast growth can be distinguished microscopically for different periods of metamorphism within or between these periods of mountain building. This research will provide a greater understanding on metamorphic processes and the time period they formed. Obtaining samples that contain FIAs from various locations in the Appalachians will be prepared at Buffalo State College. The samples will then be further studied at James Cook University in Townsville Australia under Dr. Timothy Bell who specializes in the analysis of FIAs.

**Presentation Type and Session:** Poster VI



## **Are Children in the City Exposed to More Harmful Elements Than Children in Suburban or Rural Areas?**

**Ryan Feickert** and **Lauren Wittlinger**, GES 460:

Environmental Field Methods and Analysis

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Our objective is to examine the integrity of the soil on and around local playgrounds throughout Erie and Niagara Counties, within city, rural and suburban environments. Our investigation will determine what elements are present within each soil sample taken, and give us a better understanding of what children who frequent these playgrounds are being exposed to. My partner and I will be looking for traces of copper (Cu), lead (Pb), and zinc (Zn); while our counterparts on this project will be focused on arsenic (As), chromium (Cr), and cadmium (Cd). We will be taking three soil samples from each playground site. One will be taken directly next to or under the playground equipment. The second will be in the middle of the playground area (a few yards from the equipment), and the third will be taken a few yards outside the boundaries of the playground. We suspect that the city playground soil will contain more worrisome elements than the soils from other areas. This suspicion is based on the fact that the city is much more populated with factories and daily automobile traffic, which could lead to the area having a much higher pollution rate.

**Presentation Type and Session:** Poster VII

## **Are Chlorine Levels in Niagara Falls Household Water During the Winter Within Regulation Standards?**

**Jameieka Price**, Geography

Faculty Mentor: Professor Charlotte Roehm, Geography and Planning, and Buffalo State's Great Lakes Center

**Note:** Complete Abstract in Health, Wellness, and Safety, p. 50

**Presentation Type and Session:** Poster I

## **Bear Ridge: Is it a Drumlin?**

**Nicholas Loncto**, Earth Science

Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

Drumlins are mounds of sediment that generally consist primarily of unconsolidated till and are orientated in the direction of glacier ice flow. Previous work has mapped a feature known as Bear Ridge in Pendleton, N.Y. as a drumlin whereas others have called it a beach deposit. If this feature is a drumlin, a possible problem arises in that its characteristics suggest ice flow in the opposite direction of known past ice flow in this area. By studying this area in detail, we will determine what type of depositional

events occurred and whether it was a glacial or fluvial process that deposited these sediments. A combination of geological and geotechnical techniques are used to tackle this problem. A literature review of previous mapping and paleogeology records was performed to gain a base knowledge of our research area. We then compared morphometric characteristics of other drumlins in the area to those of Bear Ridge to see if a correlation exists and to determine whether a regional effect caused the anomalous shape of Bear ridge. Ground Penetrating Radar (GPR) and soil trenching are also used so we can get a better picture of the internal structure of this ridge to determine whether it coincides with the typical internal makeup of a drumlin or a fluvial deposit. Utilizing these various techniques will lead us to a conclusion of how the Bear Ridge feature was formed.

**Presentation Type and Session:** Poster V

## **Comparing Gap Junction Structures Using Tryptophan-Scanning**

**Yvonne Woolwine**, Biology, M.A. and **Jennifer Karcz**, Biology, M.A.

Faculty Mentor: Professor I. Martha Skerrett, Biology

A tryptophan-scanning technique was applied to the first transmembrane domain (M1) of connexin43 (Cx43) and connexin32 (Cx32) with a primary aim of identifying sites of transmembrane domain interaction and a secondary aim of determining whether connexins share a common transmembrane domain architecture. The tryptophan-scanning technique has been used successfully to identify sites of transmembrane domain interaction in other proteins and is based on the premise that the large bulky side-chain of tryptophan is tolerated when positioned in a lipid environment but disrupts protein function when inserted at a site of protein interaction. Tryptophan was substituted sequentially for amino acids within M1 of Cx43 and Cx32 and channel function was assayed using the *Xenopus* oocyte expression system. At least six sites of transmembrane domain interaction were identified in M1 of Cx43 and at least three sites were identified in Cx32. Sensitive sites in Cx43 and Cx32 overlapped but were not identical. The results suggest that the packing of M1 helices relative to other transmembrane domains is different in these two connexins.

**Presentation Type and Session:** Oral — Sciences

## **Contact Angle of a Drop on Smooth Solid Surfaces**

**Joe Crawford**, Mathematics, **Mark Lojacono**, Biology, and **Veronica Concra**, Biology

Faculty Mentor: Professor Svetlana Berim, Mathematics

Contact angle, which a drop makes with a solid surface, is an important characteristic of wetting properties of the



surface. Generally, contact angle depends on temperature and on the nature of the surface and ranges from very small values (hydrophilic surfaces) to very large values of the order of 180° (ultrahydrophobic surfaces). In the present study, the contact angle of liquid argon is calculated for various surfaces at different temperatures. The obtained results show that for a specific choice of energy parameter ( $E$ ) of a liquid-solid interaction potential, the contact angle can be almost independent of the temperature. At constant temperature, the contact angle is a linear function of  $E$  for a wide range of values of that parameter. We will also examine contact angles for rough surfaces.

**Presentation Type and Session:** Poster VIII

### Critical Steps Required for Successful Geologic Field Research

**Thomas Bohlen**, Geology

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

In order to have the most successful experience in field geology investigation, appropriate preliminary work, including background research and, if available, laboratory work on collected samples, are critical activities before embarking on any excursion. In addition, it is just as important to be as prepared through training and initial experiences as is possible. As part of a larger-scale project, my research will be focused on the record of collisional tectonic processes that were recorded in rocks at great depths ( $> 10$  km), but now exposed in Maine, USA (collision ca. 400-300 million years ago; the Appalachian orogenic episode). For my part, I am focused on rocks located north of Portland, Maine, where rocks are part of a belt that extends through Canada and New England. Evidence shows partial melting of these rocks during their deformation, and the emplacement of associated granite bodies of various sizes as the collision progressed. Building on previous study of these rocks (see LaFleur, 2007 SRCC), and parallel study (see Nyitrai, this year), I am studying the relations of the mineral patterns and associated granite bodies at several scales, including rocks with regional significance to the contact of a large body of granite, known as the Sebago pluton (ca. 293 Ma). Field work is scheduled for summer 2009, and objectives include mapping of rock types and structures, as well as additional sample collection. I will follow this work in the lab in order to augment both field work, and previous lab work.

**Presentation Type and Session:** Poster VII

### Cutting Crime: SEM Analysis of Saw Marks in Bone

**Christi Rattle-Hinman**, Forensic Science

Faculty Mentor: Professor Scott Goodman, Chemistry

In situations in which a victim's body is mutilated in order to prevent identification after a murder, investigators are sometimes faced with the task of identifying dismembered remains. After attending this presentation, attendees will learn a useful technique to assist in the evaluation of saw marks found on large areas of bone or in cases where multiple saw blades from the same class need to be examined. It was one goal of this study to be able to determine whether or not 10 identical reciprocating saw blades would leave behind saw mark patterns that exhibit individual characteristics. In order to determine if this was possible, cadaver skulls were used for bone samples and the blades were then worn in the exact same manner. Scanning Electron Microscopy (SEM) is a useful method for analysis of saw marks in bone due to its ability to produce images of high-powered magnification. This instrument allows one to take a closer look at the kerf, or sawed groove left behind in the bone and also makes it possible to identify striations or patterns left behind that record the blades stroke. With this information it is likely to determine if the questioned saw mark in the bone matches the saw mark from a known source. To eliminate problems associated with placing bone directly in the SEM, a negative-positive impression technique was used to make a replica of the bone containing the saw marks. This technique was useful and made it possible to propose a numerical approach to saw mark pattern analysis by measuring striation spacing on the surface of each saw mark shown by the SEM images. This method of analysis may reduce the subjectivity involved with traditional of tool mark analysis. This study will impact the forensic community by assessing the capabilities of the forensic identification of saw mark patterns in bone as well as an impression technique using PVS and epoxy resin.

**Presentation Type and Session:** Oral – Sciences

### Determining Behavioral Responses to Boat Traffic and Noise in the Northern Diamondback Terrapin (*Malaclemys terrapin terrapin*) in Barnegat Bay, New Jersey

**Andrew Harrison**, Biology and **Lori Lester**, Biology (Drexel University)

Faculty Mentors: Professor Edward Standora, Biology, Professor Wende Mix, Geography and Planning, and Professor Hal Avery, Biology (Drexel University)

The diamondback terrapin is North America's only estuarine turtle and is subject to increasing anthropogenic pressures. To

determine the behavioral responses of terrapins to vessel noise, we will attach a motion-sensor data logger and a temperature/depth recorder to terrapins in Barnegat Bay, NJ. Boat engine sound recordings will be played when the terrapins approach an underwater speaker and any response will be measured. To determine behavioral responses to vessel traffic, terrapins will be monitored and tracked with attached biotelemetry devices when exposed to such traffic. Since GPS devices are ineffective in salt water, alternative methods will be developed in order to record terrapin movements. Because turtles turn by banking, we can utilize a formula typically used for airplanes to predict the radius of a turn based on the banking angle. We will use the motion sensor, temperature, and depth data along with the release/recapture points to plot the path of submerged terrapins. We hypothesize that terrapins will display erratic behavior when in close proximity to an operating boat and boat noise. Our data will be used to help wildlife and conservation agencies to prioritize special management zones of protection in Barnegat Bay and in other estuaries in North America.

**Presentation Type and Session:** Poster III

### **Determining Phosphorus, Nitrogen, Iron Ratios Which Optimize Algal Blooms in Fresh Water Wetland Systems**

**Monique Wilson**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Charlotte Roehm, Geography and Planning and Professor Andrea Guiati, Director, All College Honors Program

Algal blooms are large biomasses of phytoplankton that form unsightly surface scum on nutrient rich stagnant waters. It is known that phosphorus and nitrogen are limiting nutrients for bloom development, while iron is specifically important to nitrogen fixing species. Waters that are high in phosphorus and nitrogen often experience bloom development and flourishing. These blooms have also been associated with eutrophic and hypoeutrophic wetland states. Depending on the concentration and stoichiometry of nutrients, different types of cyanobacteria will dominate at a given time. Though these shifts in species dominance have been studied for years, very little has been done to determine why wetlands that are environmental and biologically similar show different dominant species or show an absence of blooms all together. In this study we intend to determine what physical, chemical, and biochemical conditions promote the development of algal blooms in freshwater coastal wetlands bordering Lake Erie and Ontario. We will execute both field and laboratory components. The field component will include the characterization presence or absence of algal blooms across the wetlands, and the areal extent thereof. To better understand developmental responses species identification must

be completed. In the laboratory bioassays we will manipulate phosphorus, nitrogen, and iron ratios to determine the optimal mixture required to promote various species development into blooms. We seek to understand the growth dynamics of algal blooms and what environmental and biochemical conditions optimize the growth of various cyanobacterial species and how these wetlands perform once an algal bloom has developed.

**Presentation Type and Session:** Poster IV

### **Did a New Island Grow in Caldera Lake Coatepeque, El Salvador?**

**Michael Reilly**, Geology

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

Lake Coatepeque is a collapsed caldera that erupted last 52,000 to 70,000 years ago. This caldera filled in with meteoric water and is used by the locals for food water and clothes washing. It is also used for recreation and tourism. Our research site in the western part of the lake is an old rhyodacitic dome field. The original plan was to measure water temperatures and discharge volumes to determine possible water diversion for keeping the lake to be polluted by detergents. Upon arrival we discovered an island at the location in the lake that was not recorded on the most recent topographic map (1:25000, 1979). The locals believe the water level has receded in the last 20 years. This brought forth the question of whether or not the island is a growing volcanic dome or revealed topography. Data was collected with the help of fellow classmates to locate some viable areas of increased geohydrothermal activity. Our research found three hydrothermally active springs suggesting hot rock in the subsurface. There are 2 active volcanoes within 4 km of the lake. This volcanic activity could open underground fissures and cause the lake water to find it way down to the rock heated by near surface magma chambers possibly causing the geothermal spring water surrounding the unmapped island. More research is needed.

**Presentation Type and Session:** Poster V

### **Do You See What We See? A Comparison of Crime Scene Interpretations**

**Ashley Dauphin** and **Harvey Mosher**, HON 400: All College Honors Colloquium

Faculty Mentors: Ms. Anne Marie Sokol, Chemistry and Professor Andrea Guiati, Director, All College Honors Program

The popularity of Investigative Police Dramas in television can generate misconceptions about crime scene analysis and processing. Once evidence is extracted from a crime scene, many detailed analytical tests are performed. This not so glamorous process typically fails to make the cut in popular television

programs. It is the goal of this research to gain insight into the layperson's perceptions of the forensic process. By staging a crime scene and having participants analyze the photographed scene, comparisons will be made between the layperson's perspectives and those of a scientifically trained student. It is hypothesized that the general population will have a narrow view of what crime scene information is truly valuable, focusing on aspects that are popularized by these television dramas.

**Presentation Type and Session:** Poster IV

### Drinking Water Quality on Campus

**Ernest Thalhamer**, Geology and **Kerri Spuller**, Earth Sciences

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

At Buffalo State College we have approximately 9,300 undergraduate students, 25% of whom live on campus in dorms. Most of these students will consume water on campus in some form. We plan to test water from both on and off campus locations where students live to understand the overall quality of our drinking water. In order to assess the water quality for students at Buffalo State we will be testing three dorm buildings, two off-campus houses in the vicinity of the school, and at the hotel which is currently housing some students. In order to get the best results we will be taking these tests twice, once in the morning when the water has been sitting stagnant in the pipes and once in the middle of the day when the water is being used. Also, we will take samples from both the bottom and top floor, in order to get one sample very close to the inlet source, and one sample far away. We will be performing tests to measure arsenic, lead, chlorine, copper and iron content. We will also measure pH, hardness and turbidity. We believe that older buildings will have an overall poorer water quality when compared to newer buildings.

**Presentation Type and Session:** Poster VIII

### The Effect of Curing Conditions on the Structure and Stability of Amino-Functionalized Organic Films on Silicon Substrates

**Catherine Fill**, Forensic Chemistry, **Alicia Maneen**, Forensic Chemistry, and **Lindsay Brignon**, Chemistry

Faculty Mentor: Professor Jamie Kim, Chemistry

This project focuses on the investigation of effects of curing conditions on the structure and stability of amino-functionalized organic films on silicon substrates using Fourier transform infrared spectroscopy (FTIR), ellipsometry, and fluorescence microscopy. Amino-terminated organic films were prepared on silicon wafers by self-assembling 3-aminopropyltriethoxysilane (APTES) in toluene, cured at different conditions, and washed by

sonication in water. For APTES films without curing/or cured at 25 °C, the thickness of APTES films decreased by as much as 65% after sonication in water. FTIR spectra indicate that a substantial amount of physisorbed and/or partially condensed APTES was removed and surface amino groups were oxidized to imines. For APTES films cured at 100 °C, ellipsometric measurements and FTIR spectra showed that the thickness was decreased by ~10% and that remaining loosely bound APTES had become condensed after curing. Further sonication in water caused no significant changes in the thickness and structure. Independent fluorescence measurements support ellipsometric results and FTIR studies. Our investigations suggest that freshly prepared APTES films are mechanically unstable in aqueous solutions and that proper curing process is required to form physically stable APTES films.

**Presentation Type and Session:** Poster III

### Effects of Aging Verdigris in Artist Prepared Paint

**Megan Berkey**, Art Conservation

Faculty Mentors: Professor Aaron Shugar and Ms. Katrina Bartlett, Conservator

Verdigris (copper acetate) is known to discolor and darken with time in various artists' media. Previous research was conducted to observe changes in the optical properties and morphology of the pigment in freshly prepared, naturally aged and artificially aged samples. Verdigris pigment samples were dispersed in three common artists' media: egg tempera, watercolor vehicle (gum Arabic), and linseed oil. In addition, a control sample of verdigris dispersed in water and ethanol was also employed. All samples were observed, analyzed and documented. The present research (using the same media and aging parameters previously established in section one) further analyzed pigment samples through the use of spectrophotometry, Fourier transform infrared spectroscopy (FTIR), X-ray diffraction (XRD), and Raman spectroscopy to establish variations and changes in chemical composition and crystallinity that verdigris pigment undergoes as it ages in various artists' media.

**Presentation Type and Session:** Poster IV

### Effects of Dietary Fatty Acids on Growth of Alewives, a Key Great Lakes Fish Species

**Chad DeMarche**, Biology

Faculty Mentor: Professor Randal Snyder, Biology

Alewives were fed one of two artificial diets. One of the diets contained fish oil (high in omega-3 fatty acids) and the other contained corn oil (high in omega-6 fatty acids). Fish receiving both the fish and corn oil diets were further separated into high and low ration. The fish were fed via electronic feeders

that delivered numerous feedings throughout the day until the daily ration was complete. The fish were sedated and weighed individually every three weeks over a six-week period, including an initial weigh in. Upon the final weighing, there were significant differences in growth between those fish receiving high ration and those receiving low ration. There were also differences between the fish oil subjects and the corn oil subjects, with the fish oil groups exhibiting higher growth rates. These differences, and others, are still being analyzed.

**Presentation Type and Session:** Poster III

## Elemental Analysis of Chert

**Krista Ventura**, Earth Sciences and Anthropology

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Chert is a cryptocrystalline variety of Quartz that is found in layers and nodules in sedimentary rocks. Chert is very hard (around 7 in the Mohs' Hardness Scale) and extremely resistant to weathering. With typically clean conchoidal fractures, chert is great for making edged stone tools. Because the size of the crystals is so small, the material has no preferred way of breaking. Therefore, skillful craftsman could control the way the chert would fracture. Our goal is to determine if the chert samples can be categorized by their trace element content, and see if this information can be used to determine if the samples have a common geologic source. Using X-ray Fluorescence (XRF), we can analyze the samples for their trace element content. The Anthropology Department at Buffalo State College has a collection of chert samples collected from the Western New York area. Historically, such collections have been classified visually. For example, some of the chert samples are uniform gray in color while others show some combination of colors. However, this coloration does not guarantee that the chert came from the same place. In doing this classification, we hope to be able to understand travel and trade patterns of early native tribes.

**Presentation Type and Session:** Poster VII

## Environmental Degradation vs. Artistic Intention: The Darkening of Lead Pigments on Japanese Woodblock Prints

**Christina Finlayson**, Art Conservation

Faculty Mentors: Professor Aaron Shugar, Art Conservation and Professor Judith Walsh, Art Conservation

The blackening of lead pigments on works of art due to hydrogen sulfide exposure has been well documented. In particular, Japanese woodblock prints display instances of lead discoloration that can be attributed to environmental conditions. However there are examples where a silvery discoloration appears to be a patina desired by the artist. This research revisits earlier

work on the subject conducted by Judith Walsh, et al. (1997), but in addition, it will attempt to reconstruct possible traditional methods for creating the surface patina. Samples will be printed with red lead dispersed in water and mixed with rice starch paste. Half of the samples will be overprinted with a 5% acetic acid solution and placed in a chamber containing sodium sulfide and sulfuric acid to produce hydrogen sulfide; the others will be overprinted with rice vinegar and exposed to hydrogen sulfide vapors produced with a variety of period-appropriate materials. The morphology, chemistry, and crystallinity of the resulting lead sulfide will be observed and compared using polarized light microscopy, SEM, and XRD. It is expected that alternative techniques for producing the lead patina will have unique qualities that will help differentiate it from red lead blackened using laboratory reagents.

**Presentation Type and Session:** Poster III

## Ernest Untermann Revisited

**Jennifer Grasso**, Geology

Faculty Mentor: Professor Richard Batt, Earth Sciences and Science Education

Ernest Untermann is a renowned artist originally from Germany known best for his beautiful paintings. Untermann became the staff artist at the Utah Field House of Natural History in Vernal, Utah. Here he continued painting his depictions of the Jurassic period's (206 to 144 mya) flora and fauna. He also painted numerous landscapes of the Uinta Mountains. Many of his paintings are still housed in the museum's collections. Two particular paintings caught my eye while employed at the museum. One was a view of the Jurassic through Untermann's eye painted in 1949 (FHPR 437). The next was the same scene updated with the latest science of the times, painted in 1953 (FHPR 368). The idea struck me that I could create a third painting in this series updating the science and attempting to keep the cartoonish Untermann style.

**Presentation Type and Session:** Poster VIII

## Fishing for an Alternative to the Traditional Source of Isinglass: Preliminary Investigations

**Eileen Sullivan**, Art Conservation

Faculty Mentors: Professor Aaron Shugar, Art Conservation and Professor James Hamm, Art Conservation

Isinglass has become a generally accepted tool in Western conservation as an adhesive and consolidant. Isinglass is a natural polymer consisting of collagen, having relatively low viscosity, high tack properties, and low gellation temperature, which distinguish it from traditional animal glues and synthetic adhesives. These unique properties have made it an indispensable



tool for a variety of paper and paintings conservation treatments. Isinglass is traditionally produced from the inner membrane of the Russian beluga sturgeon. However, due to dwindling sturgeon populations in the Caspian and Black Seas an alternative to the traditionally Russian produced adhesive is necessary. This study provides an overview of various traditional methods of producing isinglass. Potential replacements for traditional Russian sturgeon will be explored, focusing on the availability of sturgeon in the United States. Isinglass will be prepared in a variety of processes, utilizing American farm-raised white sturgeon. FTIR will be used to compare laboratory prepared and traditional isinglass samples. Differential calorimetry will document and compare phase transitions of the samples. Additional traditional analytical methods will measure key adhesive properties such as pH, molecular weight, and gelling properties. These results will be compared with the available published data. A determination will be made as to the feasibility of replacing traditional Russian isinglass with more easily obtainable alternatives.

**Presentation Type and Session:** Poster III

### **Food Web-Mediated Transport and Bioaccumulation of Flame Retardants (PBDE) in Lake Erie**

**Jessica Wuerstle**, Biology and **Jon Tarasiewicz**, Biology  
Faculty Mentor: Professor Alicia Perez-Fuentetaja, Biology

Many contaminants found in Lake Erie bioaccumulate in fish, posing a risk to aquatic populations and their consumers. Polybrominated diphenyl ethers (PBDEs) are contaminants highly persistent in the environment that have similar structure to the banned polychlorinated biphenyls (PCBs). The United States is the world's largest consumer of PBDEs, which are used as flame retardants in many items such as building materials, plastics and textiles. These chemicals leach into aquatic systems through waste disposal and breakdown of materials. PBDEs have been shown to alter the endocrine system and can disrupt thyroid activity and affect reproduction. Many aquatic invasive species have become established in Lake Erie and have modified the food web. These exotic species have the potential to increase the concentration of contaminants in top predators while reducing the amount of energy reaching them. Our research will look at the concentration of PBDEs in different levels of the food chain including predatory (sport) fish, forage fish, zooplankton, benthos, water and sediment. We will use stable isotopes ( $^{13}\text{C}$ ,  $^{15}\text{N}$ ) to determine trophic levels and interactions among organisms. This research will provide insight into PBDE bioaccumulation and energy pathways in food webs dominated by exotic species in Lake Erie.

**Presentation Type and Session:** Poster II

### **Genetic Analysis of American Bald Eagle Populations in the Northeastern United States**

**Amelia F. Alessi**, Biology Education

Faculty Mentor: Professor Amy McMillan, Biology

In the first half of the twentieth century American Bald Eagle, *Haliaeetus leucocephalus*, populations were nearly extirpated as a result of habitat destruction and the bioaccumulation of organochlorine compounds, like DDT. In 2007, after nearly a quarter century of extensive conservation efforts, American Bald Eagle populations had increased to numbers that warranted its removal from the Endangered Species List. In New York State this recovery was particularly significant because Alaskan eagles had been introduced to rescue the remaining breeding pair. Drastic population reduction and repopulation events such as this are frequently associated with the loss of genetic diversity, which may impact a species' ability to adapt to its environment. Previously no population genetic studies had been completed to determine the amount of diversity in Bald Eagle populations. During the summer of 2008 I genotyped approximately four hundred eagle samples from the Northeastern United States at seven polymorphic microsatellite loci. Analysis of these genotypes will provide an estimate of global genetic diversity within Northeastern Bald Eagle populations and inform continuing conservation efforts in New York. Preliminary results and ramifications of the genetic analysis and the methods used to collect data will be presented.

**Presentation Type and Session:** Oral – Sciences

### **Geomorphic Mapping in Margaritifer Terra, Mars: MTM - 20022**

**Jacob Hodgson**, Earth Sciences

Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

Mapping of a 5 degree by 5 degree quadrangle in the Margaritifer Terra region on Mars has shown past fluvial activity through the presence of valley networks, channels and alluvium deposits. There are also volcanic resurfacing events and extensive cratering within the map area. Mapping has delineated regions of different ages and has revealed a likely sequence of geologic events that shaped the features of Margaritifer Terra. Some notable features in the mapped area include the large crater Jones that is located in the northeast part of the quadrangle. Sections of the third outer ring of the Ladon/Holden impact basin are also visible, located southwest of Jones in the South central portion of the map area. Together, the mapped units in this area of Mars show a complex history of cratering, deposition, and fluvial erosion.

**Presentation Type and Session:** Poster VI

## **GIS Analysis of Impact of Industrial Remediation Sites to Cancer Incidents Across New York State**

**Casey Anderson**, Urban Planning

Faculty Mentor: Professor Tao Tang, Geography and Planning

Understanding the spatial patterns of diseases in a population can provide insight as to their causes and effects. The analytic capabilities of computing technology, particularly geographic information systems (GIS), have greatly improved the ability to measure and assess these patterns (Boscoe et al. 2004). On the other hand, GIS spatial analysis has long been applied for environmental contamination studies. The objective of this study is to utilize GIS in analyzing the spatial relationship between the distribution of brownfield (remediation) sites and cancer incidences across the sixty-two counties of New York State. Brownfields are defined as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant (US Environmental Protection Agency, 2009). Two datasets were utilized in this study. The cancer incident dataset was derived from the New York Department of Health cancer registry. The brownfield dataset was derived from The New York Department of Environmental Conservation. ArcGIS was applied in this research: 1) to perform geostatistic analysis to find the spatial trends of cancer incidences and brownfield sites; and 2) to visualize the spatial relationship between concentrations of cancer incidences and concentration of brownfield sites.

**Presentation Type and Session:** Poster I

## **GIS Visualization of Lead Contamination Effects to Children in the City of Buffalo, New York**

**Justine David**, Urban Planning

Faculty Mentor: Professor Tao Tang, Geography and Planning

Most homes in the City of Buffalo were built before or during the 20th century. The lead based paint was applied for household painting in the city until 1978. The presence of lead based paint contaminations is hazardous to the residents of these homes, in particular it is toxic to children who are 5 years of age and younger. Two major datasets were applied to conduct this research. These are: a) the population of children ages 5 years and younger, and b) the year of built of each residential structures. By applying Geographic Information Systems (GIS) computer software, I was able to analyze each census block group in the city that helped me to visualize the contaminated areas of lead pollution and the geographic risks of lead based paint hazards to children in the City of Buffalo.

**Presentation Type and Session:** Poster II

## **How Fast is Greenland's Ice Sheet Melting?**

**Jason Bartoszek**, Earth Sciences

Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

Greenland is about one quarter the size of the United States, and ~80% of this large island is covered by an ice sheet. The Greenland ice sheet contains 5% of the world's ice and has been the focus of many studies because the ice is melting. This project uses data about the ice melt rate since the start of ice sheet measurements by satellite in 1979 in order to compare the melt rate with the rate of temperature increase. It has been shown scientifically that the buildup of carbon dioxide levels in our atmosphere is one of the main contributors to increasing air temperatures, including those measured over Greenland. The amount of carbon dioxide in the atmosphere has increased as population has grown dramatically over the 20th century. Today, humanity generates the equivalent of about 50 billion tons of carbon dioxide per year through burning fossil fuels, agriculture, deforestation and other processes. Since 1991, air temperatures on the Greenland ice sheet have increased by about 3.9 degrees Celsius, therefore increasing the melt rate of the ice sheet. From 1979 to 2002, the maximum surface-melt area on the Greenland ice sheet increased by 16%. In 2007, the ice sheet melted at a record rate, with the extent of the melt area being 10% greater than in 2005. Melting also occurred 25-30 days longer in 2007 than the average melt duration over the previous 19 years. The melt rate of Greenland's ice sheet has increased at an alarming rate since measurements were first collected. This project will summarize those rates and compare them to regional temperature records for the ice sheet in order to correlate changes in air temperature to changes in ice melt rate.

**Presentation Type and Session:** Poster IV

## **Inexpensive Very High Speed Photography for Mechanics**

**Steven Wilser, Melissa Chudyk, and Steven Dutter**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Dan MacIsaac, Physics and Professor Andrea Guiati, Director, All College Honors Program

High-speed photography is a growing science whose roots go back to Harold Edgerton, who discovered an, until then, improbable use of stroboscopes to aid the capture of high-speed phenomena on film. His discoveries gave way to the development of high-speed cameras, which have come to be very expensive. Since high-speed photography can be a valuable asset in physics classrooms for evaluating high-speed phenomena, it would be extremely helpful to have a low-cost way of allowing students to take high-speed photographs. Loren Winters contributed to

this study through the use of the Vivitar 283 flash unit, multiple sensors of his own design, and a regular film camera. In our study, we utilized a Vivitar 285 flash unit, Nikon D100, and The Time Machine, a device created by Brian Mumford. The Time Machine is a relatively inexpensive interface for a camera, flash unit and sensors that allows one to easily take photographs of high-speed events. The average duration of a flash from a flash unit being 1ms, we were able to achieve an average flash duration of  $0.6\mu\text{s}$ . Some of the images we were able to capture were of breaking balloons, fired pellets in mid-flight, and bouncing balls.

**Presentation Type and Session:** Poster IV

### Innexin Studies

**Adam DePriest**, Biology

Faculty Mentor: Professor Martha Skerrett, Biology

Gap junctions are aqueous cell-cell channels. They mediate passive diffusion of molecules smaller than about 1,000 daltons between cells. In invertebrates, gap junctions are composed of the innexin family of proteins. Compared to the vertebrate gap junction-forming proteins, connexins, very little is known about innexin structure and function although it is speculated that the general function of innexins is similar to that of connexins. Sequence analysis suggests that each innexin protein crosses the membrane 4 times and it is presumed that innexin proteins oligimerize in groups of six to create a protein-lined pores that spans the cell membrane. When membrane-spanning channels from adjacent cells dock in the extracellular space intercellular channels are created. ShaxB encodes an innexin expressed in neurons of *Drosophila melanogaster*. Disruption of the gene alters seizure susceptibility. After obtaining a construct encoding ShaxB from the Phelan at University of Sussex the gene was amplified and sequenced. The gene was identified as ShaxB(lethal) variant A, a variant essential for viability. In order to study the structure and function of this innexin, RNA was expressed in *Xenopus* oocytes and intercellular currents were recorded. We are now in the process of creating mutations using site-directed mutagenesis in order to better understand the structure of resulting gap junction channels.

**Presentation Type and Session:** Poster III

### Investigation of the Formation and Structure of Amine-Terminated Organic Films on Silicon Substrates

**Lai Sze Wan**, Forensic Chemistry and **Michael Munella**, Biology

Faculty Mentor: Professor Jamie Kim, Chemistry

We present the formation and structure of amine-terminated organic layers on a silicon surface monitored by Fourier transform infrared spectroscopy (FTIR) with a grazing-angle

attenuated total reflection (GATR) mode and ellipsometry. Amine-functionalized organic films were prepared by self-assembling 3-aminopropyltriethoxysilane (APTES) on silicon wafers in either anhydrous toluene or water for varied deposition times. FTIR and ellipsometry have shown that the structure and thickness of APTES films are governed by the deposition time and reaction solution. Deposition from an anhydrous toluene solution produces APTES films with a thickness ranging from 10 to 144 Å depending on the reaction time. Film growth proceeds by adsorption of APTES to the silicon surface followed by siloxane condensation, while APTES molecules at the outer layer are bound to the underlying APTES film via either covalent bond or noncovalent interactions. In an aqueous solution, most APTES molecules in films are loosely bound and are easily removed by sonication, producing the formation of monolayers of APTES films.

**Presentation Type and Session:** Poster IV

### Juvenile or Aged: SEM Images of Santa Ana Volcanic Ash, El Salvador

**Elizabeth Scheeler**, Geology

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

Santa Ana volcano is a massive stratovolcano measuring 2,381-m-high is andesitic-to-basaltic and is located in El Salvador. Santa Ana volcano lavas are composed dominantly of olivine-pyroxene basalts and hypersthene andesites. The eruption on October 1, 2005 was preceded by increased seismic and fumarolic activity. After the eruption seismicity fluctuated and small explosions occasionally occurred. Analyzing ash from this event will help determine if the eruption produced juvenile material. If new magma is found it implies a recharge of the magma chamber. If only fragments of aged and altered rocks were ejected then the eruption was of phreatic nature. Scanning Electron Microscope methodology will shed light on ash morphology and composition. Preliminary research will be done on the history of eruptions, documented since the 16th century, the activity prior to eruptions and the nature of them, looking specifically at ash emissions, gas emissions, and seismicity. El Salvador is a developing country and most of the scientific work that has been done is primarily for disaster prevention, not necessarily for the knowledge gain or research. The work that I would like to do could be used as valuable information in disaster prevention and could help in gaining a better understanding in the nature of the volcano.

**Presentation Type and Session:** Poster IV



## **Labile Carbon Influences Soil Respiration Along an Old-Field Succession Gradient in Western New York**

**Phillip Kenline**, Biology Education

Faculty Mentor: Professor Daniel Potts, Biology

Shifts in plant community composition associated with disturbance and succession may alter soil structure and function. While changes in plant community composition have been well studied in the context of agricultural land abandonment (old-field succession) associated changes in soil microbial respiration (SMR) are less documented. Understanding SMR is vital because this process is an important determinant of terrestrial ecosystem carbon balance and a critical link in the global carbon cycle. We predicted that increasing soil organic matter (SOM) in soils sampled along an old-field succession gradient near Akron, New York, would influence a decline in the sensitivity of SMR to labile carbon addition. Results from a laboratory experiment indicate that soil water content, initial soil organic matter content and labile carbon additions combine to influence patterns of SMR along this old-field succession gradient. Furthermore, the recovery SMR, an important ecosystem function, may lag behind the recovery of plant communities in the course of old-field succession.

**Presentation Type and Session:** Poster I

## **Measurement of the Mossbauer Line Width as a Function of Sample Material**

**Joseph Steiner**, Physics

Faculty Mentor: Professor Michael DeMarco, Physics

In the Mossbauer Effect, originally discovered in 1957, a gamma ray is resonantly absorbed by a sample containing the same Mossbauer isotope. In this experiment, we use  $^{57}\text{Fe}$ . The gamma ray comes from the nuclear decay of  $^{57}\text{Co}$  to  $^{57}\text{Fe}$ . This absorption measurement process involves the actual profile of the gamma ray width (in energy) that depends on the uncertainty principle. However, the line width also depends on the resonant cross section for absorption.  $^{57}\text{Fe}$  is used because it has a natural narrow line width that is easily measured at room temperature. The performance of the experiment depends on using a source containing  $^{57}\text{Co}$  and an absorber containing  $^{57}\text{Fe}$ . One obvious question is how much  $^{57}\text{Fe}$  to place in the absorber to observe the resonance? One might think that more is better but in this case more is not better. Too much  $^{57}\text{Fe}$  and there is no resonance. Measurements presented here have been made using Doppler shift techniques for varying thicknesses of samples which show the line broadening due to the amount of  $^{57}\text{Fe}$ .

**Presentation Type and Session:** Poster V

## **Mineral and Textural Variations in Granites of the Sebago Pluton at its Eastern Contact Zone, Southern Maine**

**Kelly Nyitrai**, Earth Sciences

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

Collisional tectonic processes (e.g., at the Himalayas) are recorded at great depth ( $> 10$  km), and out of direct view. Therefore we look at ancient cores of collision zones to study this record where the rocks are exposed after erosion (e.g., the Appalachians, collision ca. 400-300 million years ago). This research is part of a larger-scale project that focuses on rocks in the northern Appalachians, north of Portland, Maine, where rocks are part of a belt that extends through Canada and New England. 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. I studied this particular area because new field work along a 2.3 km-long roadcut section, along a previously mapped contact of the Sebago granite pluton. My work focuses on the collected specimens of the granites at this site in order to understand the hand-specimen and microscopic textures in relation to the field occurrences. Specimens are composed of two-mica granites, biotite granites, and granite pegmatites. Specimens are grouped according to texture and mineral content. Laboratory studies indicate that the specimens from this outcrop contain weak foliations, and thin sections of select specimens representative of the groups revealed that a granitic composition is common throughout the specimen collected, but that solid-state deformation is recorded within grains.

**Presentation Type and Session:** Poster IV

## **Mineralogical and Textural Variation in a Roadcut Exposure of Meta-Anorthosite Near Indian Lake, Adirondacks, NY**

**Lindsay Tebo**, Geology

Faculty Mentors: Professor Gary Solar, Earth Sciences and Science Education and Professor Elisa Bergslein, Earth Sciences and Science Education

Mineralogical and textural variations were investigated along a single large road-cut exposure along NY Rt. 30 near the town of Indian Lake, central Adirondacks, New York State. In the field it was observed that the two main rock types in the exposure over a span of  $\sim 100$  meters do not have clear contacts; the outcrop appears to grade north to south from sub-anorthositic to meta-anorthosite. Stronger fabrics formed by the alignment of ferromagnesian minerals are found in only one specimen; at



the outcrop level there appears to be only a very weak local fabric formed by the alignment of large plagioclase porphyroclasts. Point counting and XRD results indicate the protolith of the northern part of the exposure to have been at least sub-anorthositic in composition. The south-central exposures are anorthositic, with a greater relative percent of labradorite, pyroxenes and opaques. To augment field and thin-section data, we have used XRD to investigate the bulk mineralogical variation across the transition of rock compositions. XRD results confirmed the specimens to be composed primarily of plagioclase, particularly labradorite, quartz and pyroxenes. In some cases, the calculated percent and the identity of minerals in the XRD results conflict with that observed in thin section.

**Presentation Type and Session:** Poster V

### **Modeling Storm Water Runoff From the Buffalo State Campus in Support of State Storm Water Permit**

**Jason Pantano**, Geography

Faculty Mentors: Professor Kim Irvine, Geography and Planning and Mr. John Bleech, Environmental Health and Safety

This project applied a personal computer version of the Storm Water Management Model (PCSWMM.NET) to estimate flow in the sewer system from a portion of the Buffalo State campus for specific storm events. Flow data were recorded in a 54" concrete conduit under Catch basin 232, in the outfall 06 sewershed in April and May of 2008. The model was calibrated satisfactorily using flow data recorded at ten-minute intervals from this site. The results of this model are presented along with the observed flow data and an examination of the calibration process for PCSWMM.NET. The model appears to have good potential as a decision-making tool for storm water management and results from this study will be used by the Environmental Programs Coordinator John Bleech in support of the State Storm Water Permit for this campus.

**Presentation Type and Session:** Poster IV

### **Plant Population Dynamics: How Flood Frequency Delays Competitive Exclusion**

**Melissa Jeckovich**, Applied Math

Faculty Mentors: Professor Joaquin Carbonara, Mathematics and Professor Daniel Potts, Biology

Cellular automata have been used to model the spatial dynamics of nonnative plant invasions for purposes of resource management and biodiversity conservation. Typically, these models are built around static rules, which govern outcomes of competitive interactions among plant species and have not traditionally incorporated episodic disturbance into their structure. Episodic disturbance plays an important role in

structuring natural plant communities by temporarily altering competitive outcomes among species. For example, wetland plant communities are shaped by the effects of episodic flooding, which may remove existing vegetation and provide opportunities for other species to gain a foothold. Our objective was to incorporate disturbance, in this case episodic river flooding, into a cellular automata model originally developed by Huang et al. (2007) to predict the expansion of smooth cordgrass (*Spartina alterniflora*) in a Yangtze estuary salt marsh near Shanghai, China. To model episodic flooding, we ran the model with n% chance at each time step of an extreme flooding, for different values of n. The extreme flooding was characterized by 90% chance of any cell to become unpopulated (due to flooding), and on the following time step, the transformation rules for the cellular automata would apply to the flooded land. Results of these virtual experiments are analysed to provide scientist several possible scenarios for the outcome.

**Presentation Type and Session:** Poster I

### **Possible Sources of E. coli and Relationship to Turbidity in Cayuga Creek, Niagara County, New York**

**Jessica Bakert**, Geography

Faculty Mentor: Professor Kim Irvine, Geography and Planning

For years, water quality has been of concern in Cayuga Creek, Niagara County, New York. Water quality samples were taken from an upstream and downstream site in 2007 and 2008. E. coli was analyzed using the Coliscan Easygel system and turbidity was measured using Hydrolab Datasonde 4a's. Turbidity and E. coli levels were higher during storm events than dry weather at both sites. Maximum E. coli levels observed during storm events at the two sites ranged between 11,500 and 19,000/100 mL while turbidity frequently was 1,000 NTU. The downstream site typically had higher turbidity and E. coli levels than the upstream site. This study focuses on the possible sources of E. coli and the relationship between E. coli and turbidity. Finding a relationship between these parameters would be beneficial to understanding patterns in levels of E. coli throughout storm events as well as optimizing lab costs.

**Presentation Type and Session:** Poster III

### **Properties of Intercellular Channels of Human Connexin 31 Implicated in Skin Disease**

**EmmyLou Hock**, Biology

Faculty Mentor: Professor I. Martha Skerrett, Biology

Gap junctions enable intercellular communication by forming an aqueous pore between cells, allowing small molecules and ions to move passively. In multicellular organisms, gap junctions

maintain tissue homeostasis, synchronize response to stimuli, and control growth and development. Mutations in connexins cause several human diseases. Mutations in connexin 31 (Cx31) cause a type of skin disease known as Erythrokeratoderma variabilis a disease characterized by the presence of abnormal redness and thick patches of the skin. In order to investigate the functional consequences of mutations in Cx31, the *Xenopus* oocyte expression will be used. *Xenopus* oocytes are ideal for studies of membrane protein structure and function because of their large size, about 1mm in diameter, which makes them well suited for electrophysiological studies. The gene encoding Cx31 has recently been modified for oocyte expression by D. Schranz and J. Cutre in Dr. Skerrett's lab. I plan to create mutations that cause skin disease using site-directed mutagenesis and investigate the functional consequences of mutations in transmembrane domain one (M1;S26T and L34P), two (M2;C86S; three (M3;F137L) and four (M4;L209F)

**Presentation Type and Session:** Poster III

### **Reconstructing the Paleoclimate of Northern Baja California Through the Analysis of Packrat Middens**

**Jolani McClellan**, Geography

Faculty Mentor: Professor Camille Holmgren, Geography and Planning

This study seeks to explain and recreate the paleoclimate of Baja California, Mexico during the Holocene Era (last 10,000 years). Specifically, vegetation and climate changes were reconstructed through the examination of four packrat midden samples from Cañada el Diablito in the Sierra San Pedro Martir in northeastern Baja. The materials within the middens provide a natural record of past vegetation, which gives clues to the climatic conditions during the Holocene era. In the paleoclimatology lab, midden samples were sorted, materials were placed into groups according to their species, and each species was assigned a relative abundance number ranging from zero to five based on the number of fragments encountered. The relative abundance numbers show what species were plentiful in Baja at different time periods and what species have appeared or disappeared during the Holocene Era. This study is significant in that it helps us to understanding past climate and vegetation changes, as well as providing an historical baseline for assessing present and future vegetation patterns. Results will be discussed during the presentation.

**Presentation Type and Session:** Poster IV

### **A Record of Continental Collision in Western Connecticut: Laboratory Analysis of the Famous "Log-Jam" Schist**

**Charles Harding**, Earth Sciences and Earth Science Education

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

As part of an ongoing study of the tectonic record of the Northern Appalachians, I have documented mineral pattern and compositional variations in a collection of oriented rocks from the famous "log-jam" schist and surrounding localities in western Connecticut. These metamorphic rocks represent middle-crust during the formation of the Appalachians ~300 million years ago (now exposed after erosion), but are known the world over for their unusually large (up to 1m long) kyanite crystals that appear at first glance as if in a scattered or 'log-jam' arrangement. This pattern along with the other minerals in the rocks required documentation in order to understand their record of the continental collision episode. Fieldwork was completed previously, so my work concentrated on the collected specimens in the laboratory. Work included basic rock processing such as cutting for hand-specimen analysis and making thin sections (0.03mm thick slices) for microscopic analysis (6 rocks). In all 60 thin sections were made from 7 hand specimens. Hand specimen analysis revealed intricate textural relations between mineral grains, and a general kyanite- and matrix-preferred orientation in each rock. Microscope analysis revealed a similar microfabric of the matrix grains, and permitted both a calculation of the mineral percentages and an estimate of the bulk rock geochemistry. The quantification of the grain-shape fabrics was determined using a gridding approach/intercept method. In all, in combination with the results of previous work on these rocks, these data are the newest part of the data set used in the northern Appalachian mountain belt history.

**Presentation Type and Session:** Poster VII

### **The Role of Static Charge in Dirt Accumulation on Paintings**

**Jamie Abbott**, Chemistry

Faculty Mentor: Professor Gregory Smith, Art Conservation

The tendency of acrylic paintings to collect dust is often ascribed to their "plastic" nature, meaning that they should behave as electrical insulators, becoming static charged and attracting dust particles to their surface. This theory was tested by measuring the surface resistivity and static charge capacity of numerous pigmented acrylic paints and comparing those results to identical experiments on similarly pigmented paint media and varnished paints. The experiments were performed at several relative humidities spanning 14% to 75% RH. Furthermore, we tested the anecdotal evidence of increased dirt accumulation rates

for acrylic paintings relative to other paint media by conducting an accelerated dust accumulation experiment on numerous painted and varnished paint mock-ups. The possibility that differences in dirt accumulation could be correlated simply to the softness of the paint film surface was tested by measuring the glass transition temperature of the media and varnishes and comparing those values to the dirtiness of the paints as measured by particle counting experiments and loss of gloss. Based on these results, it is concluded that static charge on paintings is unlikely to be a concern for dirt accumulation, especially at moderate to high RH where almost all paints behave as static dissipating materials. Conservation paints based on n-butyl methacrylate (MSA-type) as well as some varnishes were found to be insulating even at a moderate RH of 54%, although the accumulation of dirt on these surfaces as evidenced by the accelerated dirt exposure test suggests this is not a practical concern. Harder paint surfaces, such as the MSA paints, are less likely to trap dirt, and so they are easily brushed or wiped clean of any accumulated particles. Because of the correlation between dirt accumulation and T<sub>g</sub>, the use of harder latex emulsions or the application of harder varnishes onto the surface of softer paints is perhaps warranted to reduce dirt accumulation and entrapment of dirt in acrylic emulsion paint media.

**Presentation Type and Session:** Oral – Sciences

### **Seasonal Forecasting Using Past Seasons**

**Colin Bittner**, Geography

Faculty Mentor: Professor Stephen Vermette, Geography and Urban Planning

The purpose of this research is to assess whether the climate of past seasons can be a predictor of future seasons. For example, does a cold, snowy winter mean that a cool, dry summer will follow? This study looks at climate data from Buffalo, NY recorded over the past 65 years. The two meteorological variables used in this research are temperature and precipitation. These variables are averaged for all four seasons, over the 65 year study period, and each yearly season is compared with the average to determine whether these seasons are warmer or cooler, and wetter or drier than the average. Using a statistical forecasting approach, every season type is compared with a season that follows to find which ones are the best predictors for certain seasons. This research will also look at how atmospheric oscillations, like the North Atlantic Oscillation (NAO), affect the seasonal climate prediction here in Buffalo.

**Presentation Type and Session:** Poster I

### **Seeing the Unseen**

**Sarah Chudyk**, HON 400: All College Honors Colloquium  
Faculty Mentors: Professor Gary Pettibone, Biology and Professor Andrea Guiati, Director, All College Honors Program

Many people in today's society live very busy lives. Going to school, work, stores, restaurants, and any other public place seems to be a regular part of our lives. In these places, we open doors, use railings, drink from water fountains, use the restrooms, and buy items from vending machines. We often do this without thinking about what we are actually touching. Think about it. How many people are touching these common items? What are they leaving behind after touching them and what are we picking up from touching them? Is this something we should be concerned about? These common items were tested for bacteria in different buildings on the Buffalo State campus. By taking bacteria counts and using statistics, comparisons will be made between different items and buildings. We can get an idea of how many bacteria really are settling on these common items that we always seem to be touching. It just might make you think the next time you open a door or get a drink from the water fountain.

**Presentation Type and Session:** Poster III

### **Snowspotting on Campus 2008-09**

**Joseph Petre**, Geography

Faculty Mentor: Professor Stephen Vermette, Geography and Planning

The National Weather Service oversees a network of over 200 snowspotters across the western and central New York regions. The purpose of this network is to give an account of the "ground truth", or the actual surface reports of snow conditions (snowfall and snow depth) throughout the snowspotting season, (traditionally, November 1 to March 31). Each member of the network is responsible for collecting daily snow depth measurements, creating a seasonal archive. This poster describes snow depths and winter 2008-2009 conditions on the Buffalo State Campus. Snow depth measurements are taken using a ruler that is placed into the snow, in an area that represents the true amount of snowfall (least affected by wind drifting, trees, etc.). Additionally, current weather conditions were recorded, and water equivalents were taken weekly when the amount of snow on the ground was 4 inches or more. Preliminary results indicate that snowfall for the year was somewhat average, it was the low temperatures that were the most significant aspect of this winter.

**Presentation Type and Session:** Poster I

## **Structural Damage Analysis of Urban and Rural Buildings Impacted by Sichuan Earthquake Applying Remote Sensing**

**Li Xie**, Urban Planning

Faculty Mentor: Professor Tao Tang, Geography and Planning

The 2008 Sichuan earthquake, which was also known as Wenchuan earthquake occurred on May 12th, 2008 in Sichuan Province, China. It was one of the deadliest earthquakes to hit China. More than 90,000 people in total were perished or missing in the earthquake. Sichuan is a province in southwest China. The province lies in the Sichuan basin, surrounded by the Himalaya Mountains to the west, the Qinling Mountains to the north, and mountainous areas of Yunnan to the south. Plate tectonics formed the Longmen Shan fault, running north-easterly in northwest part of Sichuan. According to studies by the China Earthquake Administration, the earthquake occurred along the Longmen Shan fault, a thrust formation along the border of the Indian Plate and Eurasian Plate. The epicenter, Wenchuan is one of the counties in the Ngawa Tibetan and Qiang Autonomous Prefecture in the north Sichuan. This study is to utilize the remotely sensed images and field photographs taken by Dr Tao Tang in the summer of 2008 to analyze the geographic distributions of building structural damages from the epicenter to the heavily impacted regions. The results show that the damages vary from 70% to 100% depends on the distances to the epicenter.

**Presentation Type and Session:** Poster IV

## **Toxic Soils on Playgrounds?**

**Amanda Dory**, Geology and **Diane Dory**, Geology

Faculty Mentor: Professor Elisa Bergslien, Earth Sciences and Science Education

Do levels of toxic elements on playgrounds vary between urban, rural and suburban areas? The purpose of our project is to determine if the presence of heavy metals fluctuate between sites located in and around local playgrounds. This includes those located within school boundaries as well as local parks. We will focus our study on diverse locations within Erie and Niagara County including in and around industrial corridors. Our group will visit three sites per region for a total of twelve samples. Soil samples will be collected from three different areas of the playground: directly under the structure, on the perimeter and five feet from the perimeter. Once the samples have been dried out, we will be using X-ray Fluorescence (XRF) and X-ray Diffraction (XRD) to analyze the soil for heavy metals. Running the samples through XRF for two minutes will help us identify contaminants such as arsenic, cadmium and chromium. The analyzed soil samples will be compared in hopes of finding distinct differences in the levels of heavy metals

between playground soils. We expect that results from urban playgrounds will yield a higher number of toxic elements than their counterparts due to its industrial history.

**Presentation Type and Session:** Poster V

## **An Unbearable Mystery: The Drumlins of Western New York**

**Dan Serianni**, Geology

Faculty Mentor: Professor Kevin Williams, Earth Sciences and Science Education

Drumlins (elongate hills) are among the most extensively studied surficial landforms on Earth, but they retain the greater part of their enigmatic shell. Part of our understanding of drumlin formation is being challenged by an anomalous, drumlin-like landform, named Bear Ridge. It is located in Pendleton, N.Y., on the western edge of one of the largest drumlin fields in the world and appears to be facing the wrong way. The stoss end of a drumlin generally points to the direction from whence the iceflow came, however, the stoss end of Bear Ridge faces the direction opposite the origin of the iceflow. The aim of this project is to reconcile how Bear Ridge could be a drumlin but be facing the wrong direction. This is being accomplished through background investigations of drumlins around the world along with fieldwork examining Bear Ridge.

**Presentation Type and Session:** Poster V



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## *Social Sciences*

### **Academic and Personal Stress and Problematic Alcohol Use: A Cluster Analysis**

**Nicole Bayldon**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

Previous research has shown that many people may use substances to cope with stress, but research has not focused on the academic stress that often affects college students. The purpose of this research was to identify possible subgroups in which academic stress and alcohol use were highly correlated. Students selected from Buffalo State College psychology classes completed a questionnaire that measured stress levels, negative affect, alcohol related problems, drinking motives, and alcohol consumption. A two-step cluster analysis based on personal stress, academic stress, and negative affect scores found the participants fit into three clusters. The clusters that emerged were a high stress with low negative affect group (31.0%), a high stress with high negative affect group (37.4%), and a low stress with low negative affect group (31.5%). A series of ANOVAs was run to test for group differences based on alcohol consumption, alcohol related problems, and coping as a motive for consumption. The results suggested that the two groups of students with similar stress scores (clusters one and two), did not significantly differ in the amount of alcohol they consumed. However, cluster two showed significantly higher rates of drinking to cope and alcohol related problems. The results indicate that among high stress students it is those who are also experiencing high levels of negative affect that are at greatest risk for problematic drinking outcomes.

**Presentation Type and Session:** Poster I

### **Academic Stress and Reasons for Stimulant Use Among College Students**

**Nicole Bayldon**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

The use of non-medical stimulants on college campuses is receiving increased attention in the media and in research journals. The goal of the present study is to examine the different reasons college students have for using non-medical stimulants as well as the negative consequences they may experience as a result. The present study will differ from previous studies in that it will include a wider range of motives as well as a more comprehensive array of stimulants. It will also assess stimulant-related problems rather than simply levels of stimulant use. The stimulants examined will include caffeinated energy drinks, over-the-counter medications, black market ADHD medications, and amphetamines. Previous research on alcohol and marijuana

found that using these substances as a means of coping with stress and negative affect is predictive of experiencing negative consequences. Stimulants may differ however in that they may not be driven as much by avoidant coping motives (trying to address the negative affect rather than the underlying problem) as by active coping motives (trying to enhance academic performance). Approximately 200-300 students will be recruited from a Western New York college and asked to complete a self-report questionnaire designed specifically for the present study. It is predicted that recreational and active coping motives will be the strongest predictors of stimulant use but avoidant coping motives will predict problem stimulant use. It is also expected that academic stress and academic self-efficacy will interact when predicting stimulant use such that higher academic stress coupled with lower academic self-efficacy will predict higher rates of stimulant use. Results and implications for future research will be discussed.

**Presentation Type and Session:** Poster II

### **ADHD Symptomatology and Motivations to Attend College**

**Sisi Chen**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

This study examined relationships between ADHD symptomatology and reasons for attending college. Recent research has shown that ADHD can persist beyond childhood and exist in adults. It is estimated that one-half to two-thirds of children who are diagnosed with ADHD continue to show symptoms into adolescence and adulthood (Resnick, 2005). Although relatively few studies of ADHD symptomatology in college students have been conducted, it appears that college students with symptoms of ADHD have higher rates of a variety of academic problems, including difficulty making career choices and making a poorer adjustment to college (Norwalk, Norvilitis, & MacLean, 2008). These problems could be the product of the varying reasons for students attending college. One hundred-thirty six college students completed a questionnaire regarding personality and academic choices. College students with more ADHD symptoms reported lower levels of career-based and humanitarian reasons for attending college, but greater levels of attending college to prove self-worth and as a default choice because there was no other good option.

**Presentation Type and Session:** Poster I

## **Assessing Student Appreciation of the Liberal Arts at BSC**

**Brian Kline**, Psychology

Faculty Mentor: Professor Howard Reid, Psychology

A 15-item Appreciation of the Liberal Arts Scale (ALAS), which has good reliability, was recently developed at BSC by Drs. Reid and O'Quin (2009). It was found that students who reported more positive attitudes towards the liberal arts on the ALAS also indicated that they were less materialistic, had greater life satisfaction, and were better able to defer gratification. The present study extends this work by examining whether student appreciation of the liberal arts is enhanced as they progress through college. In addition, we will also examine whether scores on the ALAS are related to a series of psychological constructs, including openness to experience. In order to accomplish these goals, we are utilizing a stratified sample of BSC students with a wide range of academic majors.

**Presentation Type and Session:** Poster VII

## **The Association Between Prenatal Cocaine Exposure and Physiological Regulation in 13-Month Old Infants**

**Susan Danielewicz**, Psychology

Faculty Mentor: Professor Pamela Schuetze, Psychology

This study examined the association between prenatal exposure to cocaine and autonomic regulation at 13 months of age. Respiratory sinus arrhythmia (RSA) was obtained from 156 caregiver-infant dyads during baseline (physiological reactivity) and during tasks designed to elicit positive and negative affect (physiological regulation). The results show significant differences between cocaine exposed infants and non-exposed infants on physiological measures of regulation. Specifically, results showed a significant gender by group interaction effect for baseline RSA indicating that exposed boys had less optimal physiological reactivity than females and unexposed infants. Infants in the exposed group also failed to show decreases in RSA (suppression) during the challenging tasks indicating less optimal regulation to negative affect. This effect was pronounced in exposed boys relative to exposed girls. Consistent with the general developmental literature, the present findings provide evidence that boys are more vulnerable than girls to the effects of prenatal substance exposure as early as infancy.

**Presentation Type and Session:** Poster V

## **Behavioral and Physiological Response of a Rat to Predator Scent as a Function of Environment Familiarity**

**Vincenzo Piraino**, Psychology

Faculty Mentor: Professor Jean DiPirro, Psychology

This study is designed to investigate the relationship between rat defensive response (behavioral and neurochemical) to a predator stimulus and site of predator stimulus exposure. In other words, is a predator threat experienced as greater in a familiar "safe" environment or in a less familiar environment? Previous research found that a rat's defensive response to a predator stimulus was more extreme when the stimulus was presented in the rat's home cage versus a less familiar non-home open field. However, because the size of the home cage differed from that of the open field in the previous study, it is unclear whether this finding can be attributed to the difference in the familiarity of the exposure site or to the size of the apparatus. We predict that rats exposed to a predator stimulus (i.e., cat scent) in the home cage will show a greater magnitude of defensive response compared to those rats exposed to a cat scent in the less familiar non-home cage, when the size of the testing cage is the same. Data are currently being collected to answer this question.

**Presentation Type and Session:** Poster VI

## **Black Hawk Up: American Intervention in Somalia**

**Timothy Walters**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

The need for U.S. intervention in Somalia is once again a rising concern. My poster will classify the importance of the failing state of Somalia has towards the U.S. security and economic structure. My research focuses on Somalia harboring terrorist havens and the piracy issue and how these issues hamper U.S. trade and security in the region surrounding the Horn of Africa and affecting everyday citizens at home. The argument to solving the issue and to trying to stabilize Somalia will be with the use of the 3-D (Defense, Diplomacy, and Development) effort outlined by the U.S. State Department. I will use this model in prescribing how the U.S. can intervene in Somalia with the help of other International Organizations. The time for intervention is now and my presentation will argue this point.

**Presentation Type and Session:** Poster VI

### **Can You Hear Me? An Assessment of the Current Adoption Process**

**Faith Hoffman**, Social Work

Faculty Mentor: Professor Louis Colca, Social Work

The current adoptive process can be overwhelming and act as a deterrent for perspective adoptive parents. The continuing research aims to explore flaws in the adoption process as perceived by potential/current adoptive and foster parents as well as child and family welfare workers. Reform of social services has become a popular topic in recent times. Few people report on the less sensationalistic topics that are critical to children/youth awaiting adoption. According to trends found by the US Department of Health and Human Services, in 2007 287,000 children were served in foster care systems. Of these, only 51,000 were adopted and placed in permanent homes (U.S DOH). Surveying child and family welfare workers, potential/ current foster and adoptive parents on the flaws and successes of our current adoption process a consensus of pros and cons facing those involved with this process will be formed. The ongoing research currently shows trends in dissatisfaction of child and family welfare workers in their ability to support their clients. With few changes in the adoption process over many years this research advocates for those who have not been heard.

#### **Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences

### **Can Eyewitness Accuracy be Improved?**

**Abigail Pardue**, Psychology

Faculty Mentor: Professor Robert Delprino, Psychology

Eyewitness identifications are not as accurate as the general public might think, yet many individuals have been sentenced to long terms of incarceration based solely on eyewitness identification. This study examines techniques that may be used to improve the accuracy of eyewitnesses. Specifically this study compares interview types (Cognitive and Structured) and photograph presentations (Photo Array and Sequential Presentation) in relation to eyewitness' accuracy and confidence of identifying suspects. Analysis indicates that interview type can influence eyewitness' confidence level in their identifications. While no significant gender differences were found in confidence levels, females tended to be more confident overall with their identifications.

**Presentation Type and Session:** Poster VII

### **Copyright and Plagiarism Among College Students: Where's the Line?**

**Bethany Wagner**, Psychology

Faculty Mentor: Professor Jill Norvilitis, Psychology

Although the Internet age has brought many advances, concerns have risen about the potential abuse of information. The current generation of college students have unprecedented access to technology. Sometimes called the "Net Generation," this new breed of college students has grown up with access to high speed Internet and home computers. College students have come under scrutiny for two forms of copyright violation: downloading music and plagiarism. In the present study, the researchers examine digital piracy and plagiarism to determine if there exists a slippery slope effect. Are people more likely to be tolerant of greater infringements if given the lesser infringements first? It also examines personality factors potentially related to a person's choice to break copyright. Results will be presented at the Student Research and Creativity Celebration.

**Presentation Type and Session:** Poster II

### **The Development and Evaluation of a New Academic and Personal Stress Scale**

**Nicole Bayldon**, Psychology

Faculty Mentor: Professor Michael MacLean, Psychology

The purpose of this research was to evaluate a newly developed scale titled the Academic and Personal Stress Scale (APSS). The scale was designed to assess two types of stress found in typical college students: personal stress and academic stress. Since no scale could be found that evaluated both academic and personal stress, the creation of the APSS was required. Given the many ways stress may be interpreted, the present study has defined personal stress as the perceived stress caused by or associated with personal relationships, family, and everyday social situations. Academic stress was defined as perceived stress caused by or associated with school, people within the school, the transition to college, and the daily time management involved. The study examined construct validity through face validity and content validity. A confirmatory factor analysis was computed to assess convergent and discriminant validity as well. Cronbachs coefficient alpha helped to assess the internal reliability of the scale. The results showed that the APSS is effectively measuring two separate types of stress, but the fit on the two-factor model was not as good as previously expected. Future research should address the lower than expected internal reliability and problems associated with content validity.

**Presentation Type and Session:** Poster IV

## Dissecting the African American Presidential Candidacy: How Media Favorability Led to Success of Barack Obama

**Star Johnson**, Political Science and **Nicholas Gonka**, Political Science

Faculty Mentors: Professor Kyeonghi Baek, Political Science

Although there has been substantial research done on the milestone election of Barack Obama, there is a lack of information discussing the candidacies of previous African American presidential hopefuls. Throughout 1972 to 2008 there have been five African Americans, Shirley Chisholm (1972), Jesse Jackson (1983, 1988), Carol Moseley Braun (2004) and Al Sharpton (2004), who have sought the democratic nomination with varying degrees of success. This paper will discern the factors that led to a democratic presidential nomination for Obama and how these same factors led to failed bids for Chisholm, Jackson, Moseley Braun and Sharpton. In our study we develop a theory called Media Impact, to explain why Obama received the nomination and the other four candidates did not. We argue that the manner in which the media handles a candidate affects that candidate's viability. Through a content analysis, using data from Lexus Nexus, we can determine the degree of favorability exhibited by the media for each candidate. We found that candidates with a positive media impact received more funding that heavily contributed to their success in the primaries.

**Presentation Type and Session:** Poster VII

## Does Motivation to Play Siate?

**Gina Benevento**, Psychology

Faculty Mentor: Professor Jean DiPirro, Psychology

Ecstasy (3, 4-methylenedioxy-N-methylamphetamine, MDMA) is an illicit recreational drug reported by users to induce a variety of pro-affiliative effects, such as intense feelings of empathy, love, and closeness to others. However, recent literature suggests that a large cohort of adult individuals who consumed MDMA during adolescence may now face deficits in social behavior due to altered activity in the neural systems that mediate social behavior. For example, DiPirro et al. (2007) found an immediate reduction in motivation to play and long lasting changes in neurochemistry (i.e., serotonin and oxytocin) after binge-style exposure to MDMA in juvenile rats. It is not known, however, if this reduction in play motivation was the result of binge-style exposure to MDMA or the result of a decrease in the motivation to play due to repletion, as the rats in the DiPirro et al. study were co-housed and therefore had ample opportunity to play prior to play testing. The present ongoing study is designed to clarify interpretation of the relationship between MDMA exposure and play observed in the DiPirro et al. study, and thereby build on

prior research investigating the long-term behavioral effects of binge-style exposure to MDMA during adolescence.

**Presentation Type and Session:** Poster VII

## Does Your Finger Length Predict Your Longevity?

**Vincenzo Piraino**, Psychology

Faculty Mentor: Professor Howard Reid, Psychology

The present study is investigating the relationship between adult index and ring finger (2D:4D) length and longevity. Men are generally found to have a greater 2D:4D ratio (relatively shorter index than ring finger) than women. Previous research findings suggest that greater 2D:4D ratios occur due to the male fetus being exposed to higher levels of testosterone in utero. Research has also reported that women with 2D:4D ratios that are more commonly found in men (i.e., more uneven) tend to exhibit masculine characteristics. The reverse has also been reported; those men with 2D:4D ratios that are more commonly found in women (i.e., more even) have been found to exhibit feminine characteristics. As women tend to have a greater life expectancy than men, we predict that those males who reach old age will have 2D:4D ratios that are more similar to those commonly found in women (i.e., index and ring fingers of approximately the same length). If so, this will indicate that feminine 2D:4D ratios are a significant predictor of increased longevity in older males. Participants have been recruited from a variety of BSC classes as well as local retirement homes and the data are currently being analyzed.

**Presentation Type and Session:** Poster VIII

## The Effects of Character Evidence and Judicial Instructions on Juror Decision Making

**Andrea Edick**, Psychology

Faculty Mentor: Professor Jennifer Hunt, Psychology

Past research has shown that character evidence tends to have a strong influence on jury decision making. In particular, jurors tend to misuse negative information that is presented in cross-examination, which leads to an increase in guilty verdicts (Hunt & Budesheim, 2004). We are conducting a study to see whether the stereotypicality of character evidence influences jurors' decisions in a trial involving an African American defendant. In addition, we are examining jurors' understanding of judicial instructions for character evidence and how this relates to misuse of the evidence. Participants so far include 76 undergraduate students. The participants were asked to read a transcript of a fictitious trial in which the character evidence was manipulated to be stereotype consistent or inconsistent and then to make judgments as to whether the defendant is guilty or not. So far we have found a low



rate of understanding the judicial instructions, and we have found that those people who did not understand judicial instructions for negative character evidence typically found the defendant guilty more often than those who did understand those instructions,  $F(1,28) = 5.45, p < .03$ . There are still data being collected to show whether or not stereotypical evidence affects verdicts. These results will be included in the presentation.

**Presentation Type and Session:** Poster VII

### The Effects of Young People in Politics

**Mouminatou Diallo**, Political Science, **Emily Miller**, Political Science, and **Ashlee Lovette**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

In our paper for Political Statistics, we plan to do research about how certain events and factors impact their efficacy, and how their efficacy affects the government of their country. Some of the issues that we will be looking into are things such as violence, civil and international wars, racism, and other important issues that affect the population and governance of such. We will look into the affects that the young population has on elections, including voter turnout, determining issues that young people find important, and the effects that their environment has on these factors. Our goal is to highlight and encourage the involvement of young people worldwide to become more involved and focused on their government and its policies and increase its ability to work to benefit the entire nation and not just a small portion of people from it. One advantage of young communities around the world is that many of us can connect via the worldwide web, and this is something that has never before been able to accomplish throughout history. We have the ability to influence a person millions of miles away just by using the Internet and doing things such as blogging or searching the web.

**Presentation Type and Session:** Poster VI

### The Enduring Battle of Education and Motivation

**John Metzinger**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

Education is a multidimensional process in which educators hope to not only to dole out information, but provide the foundation of knowledge on which a student can build upon later in life. It seems worth questioning then whether or not this really happens. In small personal interviews I have repeatedly found that students identify themselves as less interested in their major once they spend a couple years learning about it. I intend to research the possibility that education is actually deterring interest in social science students at Buffalo State College. I will accomplish this by distributing a survey that attempts to determine the interest level of students of various class ranks. It is my belief that seniors will

score significantly lower on interest level tests than their freshman counterparts.

**Presentation Type and Session:** Poster VII

### An Examination of Alcohol Policies at Colleges and Universities in New York State

**Kristen Campise**, Individualized Studies

Faculty Mentor: Professor Amitra Wall, Sociology

An examination of the Buffalo State Handbook reveals the need to revise the Buffalo State College's alcohol "policy." The alcohol "policy" outlines two mandates: 1) a person cannot consume alcoholic beverages if he or she is under 21, and 2) a person may consume alcohol in his or her room if over the age of 21 years. Other references to alcohol relate to the catering of events. Further, the selling of liquor on campus is prohibited. The purpose of this poster is to identify and compare alcohol policies at SUNY and private schools in the state. This researcher will compile information about each alcohol policy at the different colleges in the hopes of crafting a new and complete alcohol policy for Buffalo State College. Suggestions for an updated alcohol policy include the following: limiting drinking on and off campus to ensure safety for all students and concretely outlining the proper measures to be taken if students violate the policy in hopes that the same violation does not happen again.

**Presentation Type and Session:** Poster I

### An Examination of Personality Characteristics of Women Who Engage in Romantic Relationships With Authoritative Figures

**Alexis Krieger**, Psychology

Faculty Mentor: Professor Howard Reid, Psychology

A national survey by Pope et al., 1979 found that the preponderance of sexual misconduct involves men in the more powerful role and women in the less powerful role. While numerous subsequent studies have focused upon instructor-student sexual relationships, no research has examined the personality characteristics of these women. The purpose of the present study is to discover if women students who engage in sexual relationships with their faculty have a distinct personality profile. The present study is designed, therefore, to discover if a link exists between women's personality characteristics and the likelihood of their becoming involved in romantic relationships characterized by unequal power. Students of Buffalo State College are serving as the subjects.

**Presentation Type and Session:** Poster VIII

## **Eyewitness Testimony and the Usefulness of the Cognitive Interview**

**Jelisa Tonge**, Psychology

Faculty Mentor: Professor Robert Delprino, Psychology

A study is proposed to examine the accuracy and confidence rates related to eyewitness identification. The literature indicates that eyewitness testimony is one of the leading causes of wrongful conviction of the accused in the legal system (Wells & Bradfield, 1998; Scheck, Neufeld & Dwyer, 2000). The cognitive interview has been suggested as a way to improve results obtained from eyewitness identification. The cognitive interviewing process asks participants to re-create the crime scene mentally and report every single aspect they can remember. The proposed study will determine whether or not the Cognitive Interview produces a greater accuracy rate and confidence level among eyewitnesses as opposed to no formal interview at all.

**Presentation Type and Session:** Poster VIII

## **Factors Predicting Negative Attitudes Toward Canadians Among Western New Yorkers**

**Alexis Luttrell**, Psychology

Faculty Mentor: Professor Jennifer Hunt, Psychology

In the past year, the relationship between Americans and Canadians has been changing with the American dollar dropping in value in comparison to the Canadian loonie, Canadians' increased buying power, and the possible move of the Buffalo Bills football team to Toronto. This study is assessing whether Americans possess negative attitudes towards Canadians and if so, what factors may contribute to these attitudes. Eight factors are being assessed, including four from the Integrated Threat Theory, which are realistic threat, symbolic threat, intergroup anxiety and negative stereotypes. Other factors include distinctiveness threat, intergroup annoyance, social identity theory, and relative deprivation. Moderators (e.g., intergroup contact, social dominance orientation, and patriotism) are included to see if they change the relationship between prejudice and the predictors. We have created a questionnaire to measure Western New Yorkers' attitudes towards Canadians and the different factors that may contribute to these attitudes (e.g., realistic threat, symbolic threat). We have collected data from approximately 150 students thus far and currently are working on data entry and analysis. Results will be presented at the conference.

**Presentation Type and Session:** Poster VII

## **Green House Environments**

**Shaniqua Palmer**, Social Work

Faculty Mentor: Professor Ronnie Mahler, Social Work

Few studies of the elderly within nursing homes located in Buffalo, New York, include an assessment of the quality of care within a green house setting. As defined by William H. Thomas, M.D., the green house setting is an environment of high quality person-centered care, collective and positive work from staff members, and high technological facilities for the elderly within an agency. As stated by Thomas at the WNYAHSAs (Western New York Association of Homes and Services for the Aging) Alliance for Person-Centered Care, the green house environment should not focus on the declining health of the elderly, but rather on helping the elderly continue to enjoy their last years through innovative and imaginative activities in a home-like setting as opposed to a clinical environment. Most writings to date have focused either on the quality of care in traditional nursing homes or elderly abuse within nursing homes. This is because there are only three green house nursing homes within New York State. Nevertheless, the quality of care in the green house settings and how it impacts the quality of life of the elderly and the work attitudes of the staff are essential to investigate. This survey research project hopes to answer this simple question—does the Mercy OLV green house environment enhance the elderly residents' functioning and satisfaction level? The effect of this work environment on staff will also be explored. Survey research of 10 residents and 10 staff members at Mercy-OLV will be used to determine the answer.

**Presentation Type and Session:** Poster VII

## **History of Canadian/US Border: Buffalo, Detroit, and Vancouver**

**William Dickerson**, French

Faculty Mentor: Professor Rafika Merini, Modern and Classical Languages

I am studying the history of Canadian Borders and the security across the major borders between the United States and Canada. My focus is on three major cities: Buffalo, Detroit, and Vancouver. The way that French history ties in with this project is intertwined with the history and geography that I will study in this paper. The French immigrated to these places from Europe and had different struggles in establishing a territory (or province) here. Politics played a part here in the distinguishment of rightful ownership in lands between the British and the French. As a result, Quebec and Ontario will given special attention in my study being the francophone and anglophone provinces closest to Buffalo.

**Presentation Type and Session:**

Oral – Social/Political Science

## **How Individuating Information and Racism Affects the Activation and Use of the African American Stereotype**

**Rhudwan Nihlawi**, Psychology

Faculty Mentor: Professor Jennifer Hunt, Psychology

To what extent can individuating information, that is, knowledge about the unique attributes and characteristics an individual possesses, affect the activation and use of stereotypes? This study investigates how individuating information can affect the stereotyping process in terms of both implicit (automatic) and explicit (deliberate) stereotyping. An initial study was conducted to assess both stereotypical and non-stereotypical word associations for two well-known African Americans, Barack Obama and Oprah Winfrey, and African Americans as a group. Results showed that participants did not associate Obama and Winfrey with stereotypical traits, such as hostility. The primary study compared implicit associations about the same well-known African American individuals to implicit stereotypes about African Americans. Using the Go/No-Go Association Task (Nosek & Banaji, 2001), participant indicated their implicit associations by pressing a button quickly if a word was associated with either the person/group or a trait. Based on the frequency of errors, it was determined that participants cognitively disassociated Barack Obama and Oprah Winfrey from the African American stereotype. Due to individuating information, participants implicitly identified these individuals as more hardworking, intelligent and kind than the African American stereotype. This research is important because it sheds light on how and when stereotyping occurs.

### **Presentation Type and Session:**

Oral – Social/Political Science

## **Human Rights: May I Have Your Attention Please?**

**Vanda Brinson**, Political Science and **Peter Anthony**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

The United States has been continuously criticized for the role played in many international issues concerning human rights. While the U.S. has strongly supported the Universal Declaration of Human Rights; the issue of human rights has continuously fallen off of our Foreign Policy agenda for multiple reasons that will be evaluated within this paper. First is the role in which public opinion and personal bias plays with policy making. Public opinion polls are a regular occurrence when politics are concerned. Not only do the general constituents like to know what other citizens are thinking about issues and policies but so does the elected officials. It has been proven that officials tend to respond almost immediately after public opinion polls have been tallied. The media has a huge impact on advising the citizens

as to exactly what international crises are occurring and what policies and/or actions (if any) the U.S. is taking as a result of the crises. Therefore, because the media in a sense controls what is brought to the forefront they have the potential of swaying public opinion and inadvertently public policy. The last reason that will be evaluated is the role of partisanship. Many believe that partisanship is a major determining factor as to if and how the U.S. will respond when there have been proven human rights violations. From my research thus far a distinction between the different party affiliations is seen however, a larger impact appears to be that of the media and public opinion. While policymakers regardless of party affiliation will weigh the benefits of responding or standing back to international conflict the way the media relays the information and the response of the American people tend to control the way officials immediate reaction whether it be through statements, legislations, suggesting sanctions etc.

### **Presentation Type and Session:**

Oral – Social/Political Science

## **Identities in Exile: Examining Tension and Conflict Between Haitian and Dominican Immigrants in New York City**

**Huewayne Watson**, History

Faculty Mentor: Professor Aimable Twagilimana, English

The island of Hispaniola has historically been plagued by tension and division between Haiti and the Dominican Republic for territorial, political and economic reasons. Interestingly enough, Haitians and Dominicans who migrated to the United States of America, particularly in New York City, have brought with them their hatred and aggression in exile. It can be observed that the relationship between the second generation of Haitians and Dominicans continue to be shaped by the Haitian-Dominican conflict. The purpose of my study is: (1) to give a quick overview of the history of the island of Hispaniola and the political forces that led Haitians and Dominicans to migrate to the United States; (2) to study where they settled in New York City, particularly if there was any sustained effort for Haitians and Dominicans to live in specific areas of the city; and (3) to analyze the political and cultural origins of the continuing conflict between the two groups. My initial hypothesis is that the division between the two immigrant groups stems from the continuing dissemination of historical, ethnic, and cultural identification.

### **Presentation Type and Session:**

Oral – Social/Political Science

## Inside the Emerging Refugee Community on the West Side of Buffalo

**Benjamin Grisanti**, Sociology

Faculty Mentor: Professor Amitra Wall, Sociology

Over the last ten years, there has been a dramatic increase in the sheer number of refugees that have been relocated to the Buffalo area. Buffalo has become a popular place for refugees to come because of its low cost, ample housing and relatively low crime rate. Refugees that are relocated to the Buffalo face adversity every day. Be they Asian, African, or Middle Eastern, refugees need to become acculturated to life in America in a variety of ways. This presentation illustrates some of the issues facing the growing refugee population on Buffalo's West Side, including the problems of getting proper identification, finding employment, obtaining medical care and beginning an education. While refugees attempt to build a life for themselves, they need to adapt quickly to a new country, often they have to learn a new language, and almost always there exists cultural differences that may be difficult to deal with. Despite the hardship, a close knit refugee community has sprung up on Buffalo's West Side to help deal with this emerging issue. This presentation will explore the trials and tribulations of this community, while also providing a broader view of the refugee phenomenon during the current War on Terror.

**Presentation Type and Session:** Poster II

## Is Healthcare for the Elderly Going to the Dogs?

**Lori J. Olivieri**, Individualized Study

Faculty Mentor: Professor Jean M. DiPirro, Psychology

Animal-assisted therapy has been shown to have a positive impact on both mental and physical health. The purpose of this study is to examine the effects of animal-assisted therapy (using a therapy dog) on depression and anxiety in elderly residents of the Erie County Home with a diagnosis of Alzheimer's disease or other form of dementia. Three groups will be tested: 1) a tactile stimulation group (in which participants hold a small lap dog); 2) a visual stimulation group (in which participants can see the small lap dog, but make no physical contact); and 3) a researcher visitation group (in which participants interact with only the researcher and no dog is present). Exposure to the therapy dog or researcher will take place repeatedly over 6-8 weeks. We hypothesize that the participants in the tactile stimulation group will show the most improvement in depression and anxiety, and that participants in both the tactile and visual stimulation groups will show more improvement than participants in the researcher visitation group. The results of this ongoing study should add

to our understanding of the benefits of animal-assisted therapy and may suggest that the future of our psychological healthcare should be going to "the dogs."

**Presentation Type and Session:** Poster V

## Israel-Palestine: Attempts for Peace

**Brandi Kennedy**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

Israel-Palestine: Attempts for Peace Israel and Palestine have suffered a long conflict over borders, refugees, and Jerusalem. The US has been involved in several attempts for peace between Israel and Palestine, these include, The Camp David Accords, The Madrid Conference, The Oslo Accords, The Taba Summit, and The Arab Peace Initiative. I am interested in covering what actors were involved, how long the meetings or talks went on for, and whether or not the attempts were successful. Obviously thus far there has not been a strategy that has been successful enough to end the conflict in Israel and Palestine. There are specific subjects such as Jerusalem that are never brought to the table. My research explores why there has yet to be peace between Israel and Palestine. I am interested in looking to the future and exploring how the current Secretary of State, Hilary Clinton, is planning on handling the conflict and what future attempts for peace we might see.

**Presentation Type and Session:**

Oral – Social/Political Science

## Just Don't Marry One: Explicating the Gap Between Low Interracial Marriage Rates and High Interracial Sexual Relations Rates

**Star Johnson**, Political Science

Faculty Mentor: Professor Staci Newmahr, Sociology

Interracial relationships are often studied by examining marriage rates. As a result, it is commonly assumed that low interracial marriage rates are indicative of a relatively low rate of interracial sexual encounters. This paper will investigate whether sexual relationships are more common between people of different races, despite the fact that these relationships may never amount to marriage. This topic will be examined using Blacks and Whites as the two racial groups since these groups are the least likely to intermarry; thereby having the lowest rates (U.S. Census Bureau 2000). This study will contrast the low interracial marriage rates with the high rates of black and white sexual relations and subsequently look for explanations of this gap. I will explore the idea that sexual script theory and the power structures associated with gender roles explain the aforementioned gap. (Wiederman, 2005) Further, I will explore the question of whether



societal and cultural pressures to marry within one's race lead to exploration of interracial sexual relationships.

### **Presentation Type and Session:**

Oral – Social/Political Science

### **LBJ Isn't Here Today: Why Negative Ads are Not the Same as They Once Were**

**Maegen Hall**, Political Science

Faculty Mentors: Professor Patrick McGovern, Political Science and Professor Kristin Campbell, Political Science

The purpose of this project is to assess the impact of negative advertising. In 1964 Lyndon B. Johnson came out with “daisy girl” advertisement. It was shown only once and it blew the American audience away. It was said that people voted for him strictly because of this ad. It was generally understood that these negative ads worked. “Daisy girl” was revolutionary in that it shaped the way the presidential campaigner goes about with his ads. Nominees are much bolder with their ads than they once were because, of this ad. What I would like to research is if these ads work today. I would like to research this in a presidential setting because of the amount of publicity presented in the national election. Are people getting sick of the constant negativity? Is it the case that they are still used even if they may not be doing the job that is intended. This research is important because, if the ads aren't doing their intended job, why are they still used? I am keenly interested to see if these ads are or are not doing the job.

**Presentation Type and Session:** Poster II

### **Move Towards the Center-Left: Upstate is Democratic, Finally!**

**Clifford Cawthon**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

The Democratic Party has re-emerged as the “good party” after the presidential elections; both nationally and on the state level. Although, normally upstate New York has been a Republican stronghold; this power-grab in New York, compels us to ask: Why has upstate New York Leaned to the right? Why is it leaning towards the center left now? The democrats are “the center-left” because, the democrats are relatively centered as a whole compared to other liberal-left parties in modern democracies. The Democratic Party, while relatively moderate, on average favors government spending and public programs; therefore, impoverished upstate New York may appear as a clear democratic stronghold but, on average from Albany (its suburbs) to Buffalo citizens have voted strongly towards the right. For this study I intend to poll the public directly via phone, across geographic and sociopolitical lines. In addition to polling I intend to use philosophical and political literature by established authors and

political commentators. In summation, what we will discover from this study is: Why upstate New York has leaned towards the right in the past, and why is it leaning to the center-left?

### **Presentation Type and Session:**

Oral – Social/Political Science

### **The Naked Public Square: Technology, Consumption, and the Rise of the Unelected**

**Ryan Stearns**, Political Science

Faculty Mentor: Professor Patrick McGovern, Political Science

The notion that the public square is naked, along with recent literature concerning the health and well-being of civil society suggests that individuality has been compromised. As a result of an evolutionary process known as modernity, American culture has been stripped of its citizenship in favor of a hyperreality. Understandings of individuality as a concept in political theory have been narrowed by three interconnected factors: technology, consumption, and a rise of unelected representation. This problem is conceptualized as taking place within a fundamental tension within politics involving the individual and society. Traditional forms of understanding the individual have been diminished and as a result a less robust individual is left in a depoliticized culture.

**Presentation Type and Session:** Poster II

### **Name Discrimination of Job Applicants: The Influence of Modern Racism and Commuter Stress**

**Jessica Chilicki**, Psychology

Faculty Mentor: Professor Dwight Hennessy, Psychology

The purpose of this study was to examine the influence of displaced aggression and commuter stress on name discrimination of potential job applicants. Recent research on name discrimination of job applicants suggests that African-American job applicants may be discriminated against on their name alone, whereas “white” names receive more “call backs” for an interview (Bertrand & Mullianathan, 2003). Stress has the potential to increase negative behaviors because it reduces the restraints we hold against socially undesirable behavior. The results showed that those who reported greater commuter stress and racist attitudes (independently) were more prone to provide poorer ratings of African American applicants, despite the fact that they were not “poorer” quality candidates. This has important implications for potential employees in that the experience of stress and negative existing attitudes can lead to unnecessary and unfair treatment of minority applicants.

**Presentation Type and Session:** Poster II

## Natural Resources and Civil Wars

**Mouminatou Diallo** and **Ashlee Lovette**, PSC 330:

American Foreign Policy

Faculty Mentor: Professor Kyeonghi Baek, Political Science

In our paper for American Foreign Policy we've decided to do research about Natural resources and wars. We will discuss civil wars, diamonds and oil, and ultimately explain how their efficacy effects their government. We will explore the phenomenon of violence in terms of civil and international warfare and how the natural resources create such conflict in many of the countries in Africa. We will attempt to explain how these natural resources contribute prosperity, how the wealth is distributed, what kind of impact it has on Africa and the effect the environment has on its native people. Our ultimate objective is to emphasize on the peril natural resources cause some states and determine a better understanding as to why certain states are successful while others suffer from continuous warfare thus lacking the unity to grow and develop economically and socially. This is our attempt to expose the true side of international trade as far as natural resources and influence people worldwide to see what the price of a diamond ring or gas can cause someone else in another country. We want to encourage the creation for a new policy to intervene and hopefully prevent future brutality in regards to the trading of natural resources.

**Presentation Type and Session:** Poster VIII

## New Kids on the Block: How Developing Countries Growing Energy Needs are Bullying the U.S.

**Nick Gonka** and **Jerry Krajna**, PSC 330: American Foreign Policy

Faculty Mentor: Professor Kyeonghi Baek, Political Science

Although there is substantial research on Energy Consumption in the United States, there is a lack of information discussing how the growing energy consumption of developing countries can affect the United States on foreign and domestic policies. For the purpose of this paper we will be focusing on the growing consumption of energy in developing countries and how it affects the United States policies on National Security. In our study we argue that as developing countries expand their need for limited energy resources, the American way of life will be affected in areas such as National Security and standard of living. We argue that as the developing counties gain access to more energy the National Security of the U.S. will need to be increased and the standard of living of the average American will decrease. The data will be collected through academic articles (using Jstor and LexisNexis), news articles, and government supported case studies. With the data we will use the statistics provided and the seen policy changes to help support our arguments.

**Presentation Type and Session:** Poster VII

## A New Silk Market Vision

**Yolanda Rondon**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Laurie Buonanno, Political Science and Professor Andrea Guiati, Director, All College Honors Program

A New Silk Market Vision Ni Hao! The world is continuously changing and China is not too far behind. Studying and traveling in Beijing, China in January 2009 I witnessed a society attempting to converge traditional necessities with modern luxuries. People from all over the world travel to China with only one thing in mind, shopping. The silk market is best described as an adventure; full with people bargaining, bustling around, a business and a shopaholic's paradise. Two systems, one nation defines China and exhibits its change from a planned economy to a market economy. Traditionally money was never of important value to the Chinese, enough money was made to sustain the family and additional funds were saved. However making money and trade in the international community is now vital to the survival of China. Has China become the world's factory?

**Presentation Type and Session:** Poster VI

## Prenatal Cocaine Exposure and Physiological Regulation at Three Years of Age

**Cory Clontz**, Psychology

Faculty Mentor: Professor Pamela Schuetze, Psychology

Prenatal cocaine exposure has been associated with regulatory disturbances in infancy. This study looks at the effects of prenatal cocaine exposure on physiological regulation at three years of age. Measures of heart rate (HR) and respiratory sinus arrhythmia (RSA) were obtained from 150 caregiver-child dyads (cocaine vs. non-exposed) as measures of regulation and reactivity. The measures were taken at baseline and during tasks designed to elicit frustration and empathy. Empathy was elicited by introducing the sounds of a baby crying in another room, while the child remains in a separate room. Frustration was elicited by giving the child a wrong set of keys to open a clear box containing a gift. We hypothesized that children prenatally exposed to cocaine will exhibit more physiological dysregulation compared to non-exposed children.

**Presentation Type and Session:** Poster VI

## Prenatal Cocaine Exposure and Physiological Regulation: Does Physiological Regulation at One Month Predict Regulation at Two Years of Age?

**Jennifer Vitaris**, Psychology

Faculty Mentor: Professor Pamela Schuetze, Psychology

Infants prenatally exposed to cocaine are generally more dysregulated than infants not exposed to cocaine. However,

most studies have assessed physiological regulation during the first year of life so it is unclear if physiological dysregulation continues into early childhood. The purpose of this study was to determine if physiological regulation in 1-month old infants predicts regulation beyond infancy. It was hypothesized that infants who are physiologically dysregulated at one month of age would show more signs of behavioral dysregulation at two years of age. Infants were recruited at birth into a longitudinal study of the effects of prenatal cocaine exposure and other drugs. Physiological regulation was assessed using measures of respiratory sinus arrhythmia (RSA), which is a measure of heart rate variability (HRV). RSA was assessed at one month of age during a ten-minute period of sleep, because measures of HRV are more pronounced during sleep. At two years of age, behavioral regulation was assessed during several standardized tasks designed to elicit positive and negative affect.

**Presentation Type and Session:** Poster VI

### **A Psychometric Evaluation of the Zimbardo Time Perspective Inventory**

**Dave Musielak, Jessica Pates, Maureen Brett,** and classmates, PSY 450: Research Methods in Psychology  
Faculty Mentor: Professor Michael MacLean, Psychology

Zimbardo has proposed time orientation (also known as time perspective) as a personality trait characterized by whether a person tends to focus on the future, present or past. He has described his widely used measure, the Zimbardo Time Perspective Inventory (ZTPI), as “one of the best individual difference measures available” and indeed it has been shown to predict a number of important outcomes, including academic achievement and risky behavior. However, the items that comprise the subscales of the ZTPI closely resemble those of other measures that assess the more widely established personality traits, impulsivity and conscientiousness. The purpose of the present study is to assess the convergent, discriminant, and criterion validity of the ZTPI. Self-report data were collected from 101 college students. Analyses will include testing how discriminant the ZTPI scales are from impulsivity and conscientiousness scales and whether they predict academic achievement and alcohol-related problems after these variables are controlled for.

**Presentation Type and Session:** Poster IV

### **Rational Responses Under Irrational Circumstances: A Realist Perspective on the New Security Dilemma**

**Daniel Berger,** Political Science

Faculty Mentors: Professor Patrick McGovern, Political Science and Professor Kyeonghi Baek, Political Science

Over the last several decades global terrorism has become a growing concern on the domestic and international political stages. Growing conflicts in the Middle East and in other developing regions of the world along with major focusing events such as the attacks of September 11 has brought the issue to forefront. While in reality terrorist attacks only affect a minute sum when compared to other major issues like starvation and disease, it is its particularly gruesome nature, and the threat that it may happen anywhere to anyone at anytime are what make it so important to political agendas. However, a major flaw often illuminated by the types of political responses utilized by those nations victimized by this sort of terrorism is that it has often been categorized as irrational behavior. This paper first takes a new look at terrorism in order to discredit that false assertion and establish terrorism as, at the very least, a calculated and rational approach to achieving political goals and then explore the different methods of political responses ranging from appeasement to hard-lined military retaliation in order assess their efficacy in achieving their own political objectives.

**Presentation Type and Session:** Poster II

### **Refugees in Buffalo: An Understanding of American Education**

**Jessica Poland,** Individualized Studies

Faculty Mentor: Professor Jill Norvilitis, Psychology

**Note:** Complete Abstract in Education and Problem Solving, p. 48

**Presentation Type and Session:** Poster I

### **The Relationship Between Personality, Perceptions of Risk, and Parental Involvement on Repeat Drinking and Driving**

**Darryl Hamilton,** Psychology and Criminal Justice

Faculty Mentor: Professor Dwight Hennessy, Psychology

Knowledge of what causes offenders to repeatedly drink and drive is beneficial to society. Finding the answer to this question could change public policy and help prevent thousands of deaths each year. The purpose of the study is to look at personality and its correlation to drinking and driving. A pilot study was done where a sample of 26 students at Buffalo State College were surveyed. The study was introduced in various courses at Buffalo State College and given as extra credit at the professor's discretion. Students were asked about their personality, drinking behavior,

motivations for drinking and parental attachment. The results from the pilot study indicated that there were significant results with motivations to drink across gender. Men who drink and drive were more likely to “drink to fit in” and women who drink and drive were more likely to “drink to escape their problems”. Those who drink and drive also had lower perceptions the risk of death from drinking and driving.

**Presentation Type and Session:** Poster IV

### **The Relationship Between Time in School, Provocation, and Aggression**

**Alexis Krieger**, Psychology

Faculty Mentor: Professor Dwight Hennessy, Psychology

Aggression is any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment (Baron & Richardson, 1994). Currently there is little research comparing an individual’s level of aggression, personality traits and level of education. The purpose of this study was to examine a possible relationship between an individual’s aggressive nature and their level of college experience. The participants in the study were thirty-four undergraduate college students who were recruited from either an introductory or upper level psychology course. The participants were given a battery with a demographic questionnaire as well as a combination of questions from the Big Five Personality Inventory and the Displaced Aggression Questionnaire. After the participants completed the battery they were given five minutes to work on a puzzle task with puzzles that ranged from easily solvable to impossible to solve (task provocation). Following the puzzle task the participants were asked to rate the researcher and then they were debriefed and free to go. Although the results did not support the original hypothesis, interesting results were still obtained.

**Presentation Type and Session:** Poster V

### **Satiation of Play in Juvenile Rats: Is the Coolidge Effect Applicable?**

**Tomicka Madison**, Psychology

Faculty Mentor: Professor Jean DiPirro, Psychology

Social experience during adolescence is important for normal adult social behavior. When Ecstasy – or the main psychoactive ingredient, 3,4-methylenedioxy-methamphetamine (MDMA) – is used during adolescence, it may alter social experience and lead to negative social consequences in adulthood. In an experiment conducted by DiPirro et al. (2007), repeated 8-hr “binge” exposures to MDMA significantly reduced play in juvenile rats. However, it is not known if this reduction in play is due to MDMA exposure or to satiation in play, as the rats in the DiPirro et al.

study were co-housed and therefore had ample opportunity to play prior to play testing. Studies have shown that, in male rats, motivation to engage in mating behavior satiates over repeated opportunities with the same female and can be reversed with the introduction of a novel female (i.e., the Coolidge Effect). We hypothesize that this same effect will occur in play behavior: the introduction of a novel playmate will reverse satiation produced by repeated play opportunities with a familiar playmate. The present ongoing study is designed to investigate this proposition; the results will be used to facilitate interpretation of the MDMA-induced effect on play shown in the DiPirro et al. study.

**Presentation Type and Session:** Poster V

### **Silent Protest: The Evolution of Resistance Literature and the American Electorate**

**Star Johnson**, Political Science

Faculty Mentors: Professor Patrick McGovern, Political Science and Professor Anthony Neal, Political Science

Overtime, resistance literature has evolved into discourse that has helped influence laws, public policy and major shifts in social thought. Books, poems, weblogs and other forms of the written word have heavily influenced the American electorate. Authors like Ralph Ellison, Upton Sinclair, and Harriet Beecher Stowe have created works that have stirred support for policies and invigorate electoral politics. Similarly, non-traditional forms of written protest like the poetry of Allen Ginsberg, and songs of Woody Guthrie have helped sparked social change. This study will track the evolution of such literature, while focusing on how these words have helped evoke changes in politics. Additional factors, such as the period in which the work was created, the availability of the work and the pre-existing political climate are taken into account.

**Presentation Type and Session:** Poster I

### **Social Networking Websites and Social Support**

**Amanda Elizabeth Groeger**, Psychology

Faculty Mentor: Professor Jennifer Hunt, Psychology

The present study investigates the relationship between social networking website (e.g., Facebook, MySpace) usage and possible benefits, such as social support and well-being. Previous research indicates that these benefits are associated with computer-mediated communication. Because social networking websites encompass several varieties of computer-mediated communication, it can be hypothesized that social networking websites also lead to these benefits. However, little research about social networking websites exists. Therefore, the present study is quantitatively investigating the potential benefits of social



networking website usage. Data presently are being collected through the voluntary completion of survey packets distributed to various psychology classes. These packets include measures of social networking website usage, social support, and general well-being. We predict positive correlations between usage and social support and usage and well-being.

**Presentation Type and Session:** Poster VI

### **Student Debt: The Use of Cash, Credit, Debit Cards and Correlated Level of Debt**

**Jessica Pates, Jennifer Becker, Marni Bleichfield, Novella Curtis, Michael Downie, Melissa Filock, Robert Helwig, David Musielak, Vince Piraino, and Watoii Rabii,** Psychology Club Research Team

Faculty Mentors: Professor Jill Norvilitis, Psychology

The present study is examining the relationship between college students and money. Specifically, the study is investigating how the use of cash, credit or debit cards is related to students' level of debt. To test our hypothesis, participants will complete an imaginary shopping trip, randomly assigned to paying either by cash, credit or debit. Participants will also complete a questionnaire with questions about student income, student debt and attitudes towards debt. It is anticipated that approximately 150 participants will complete the study. Results will be presented at the Student Research and Creativity Celebration.

**Presentation Type and Session:** Poster III

### **Text Messaging: Semanticity and Productivity**

**Jessica Pates,** Psychology and **Matt Clark,** Psychology  
Faculty Mentor: Professor Stephani Foraker, Psychology

The phenomenon we are studying is the idea that people can understand and show emotion through text messaging without hearing and seeing the cues that would normally convey these emotions (i.e., facial expression, tone, and volume). Present research shows that emotion expressions, such as humor and sadness can be recognized very quickly (Tracy & Robins, 2008). We are interested in showing the relationship between recognition of traditional expressions (spoken or written) and the ability to produce these emotions in a new way, such as texting, without prior experience. All participants will be given a cellular phone and told to respond to three situations. They will have two minutes for each situation, to respond by texting. Participants will be told that our goal is to test how well they express emotions and how productive they are at text messaging. We predict that people who are experienced with text messaging will be more productive in expressing emotion without face-to-face contact, but also that novice texters will find some way to express appropriate emotions.

**Presentation Type and Session:** Poster VIII

### **Turkey and the Future of ESDP**

**Felipe Perez,** History

Faculty Mentor: Professor Laurie Buonanno, Political Science

Since its existence beginning with the fledgling European Steel and Coal Community, the European Union has largely been an economic entity. Part of the stability of any economy is the guaranteed safety of that economies largest consumers, in this case, Europeans as a people. The Europeans have thus far been extremely lax in organizing any semblance of a unified military force, and as such I will set forth to see how effective any European rapid response force can be within the constraints of regional politics and divided interests. There are currently 16 or more "areas of concern" where the EU may have to deploy crisis response forces that are within the Turkish sphere of influence. Therefore, the EU have to take into account the regional interests of all potential actors, something they had failed to do in Kosovo that continues to serve as a very important lesson to this day.

**Presentation Type and Session:** Poster VI

### **Unearthing Grand Island's Past: Buffalo State Archaeological Field School 2008**

**Nicole Martin,** Forensic Chemistry and **Dan Corbitt,** Anthropology

Faculty Mentor: Professor Lisa Marie Anselmi, Anthropology

Archaeology allows us to explore our combined human heritage through the material cultural remains of the past. In 2008, the Buffalo State Archaeological Field School was given the task of peering through the centuries into America's prehistoric past. This assemblage of students, led by Dr. Lisa Marie Anselmi, worked together to unearth the material culture of a group of Native Americans who inhabited Grand Island during the Early Woodland Period (1000 BCE-1 CE). Before excavation, students researched the historical era of Grand Island, which began with its "discovery" by French explorers in the 16th century. Once the preliminary research was complete, the students commenced excavating the Martin II site, located at Beaver Island State Park at the southern tip of the island. First, the area was cleared so a site grid could be established. This site grid provided a frame of reference for the entire site. Test pits were then excavated in order to determine the distribution of artifacts over the site. Areas with high concentrations of artifacts were expanded into full excavation units. All the excavated soil was carefully screened in order to collect any pottery fragments, lithic materials, or floral and faunal remains. All artifacts were taken back to the lab so they could be carefully cleaned and catalogued. After six weeks of hard work, the students learned a wealth of knowledge about proper archaeological procedure, as well as the subsistence patterns of the ancient Native Americans that they were investigating. This poster presents some of what we learned.

**Presentation Type and Session:** Poster V

## The United States and Japan: An International Affair

**Kelsey Carson**, Elementary Education

Faculty Mentor: Professor Kyeonghi Baek, Political Science

Ever since the Meiji Restoration occurred in Japan in the 19th century they have had significant interaction with the United States. However, during World War II foreign relations between the two nations became strained and remained that way until Japan's economic boom after the war. Today the two countries share a healthy relationship. But the future of this relationship depends on United States foreign policy decisions that will need to be made in the near future, especially those regarding the rise of China as a world superpower.

### Presentation Type and Session:

Oral – Social/Political Science

## An Uphill Battle: International Organized Crime's Growing Threat to Nation States

**Michael Pfonner**, Political Science

Faculty Mentor: Professor Kyeonghi Baek, Political Science

In the past decade, international crime rings have grown in power and prestige despite the efforts of many nations to disrupt their activities. Why is the First World losing the struggle to curtail international criminal activities like human trafficking, illicit drug and arms sales, and technological piracy? This paper would look at the various technological advances that are now available to the general public throughout the world that are making it easier for these organizations to organize and plan their actions. It would also examine the methods that many American diplomatic and law enforcement agencies use to fight these shadowy pseudo-corporations. I expect to find that corruption plays a significant role in this situation. One of the sources I will be using, the book *Narco-Terrorism*, by Rachel Ehrenfeld, describes corrupt DEA agents like Edward O'Brien, who was arrested for cocaine smuggling. Aside from government corruption, I will examine what government policies have been working. The paper will mostly examine American governmental policy with little focus on Interpol and Europol.

### Presentation Type and Session:

Oral – Social/Political Science

## Video Game Motion Controls and Aggression

**Kevin Villareale**, Psychology

Faculty Mentors: Professor Dwight Hennessy, Psychology

A study was done to investigate if motion sensitive video game controllers increased aggression after playing a violent video game. Twenty-eight college students (19 females, 9 males) participated in the study and all received extra credit for their

participation. The participants all played the same violent video game for twenty minutes on either a Nintendo Wii or the PlayStation 2 system. They were then given an opportunity to provide ratings of the researcher where the instructions established that their responses would directly hurt the grade of the researcher (symbolic aggression). The hypotheses for the current study were that participants who were in the condition using motion sensitive controllers (Wii system) would show higher aggression levels than participants in condition without motion sensitive controls. Secondary hypotheses were that "gamers" would have higher aggression levels than "non-gamers" and that males would show higher aggression levels than females. The results of the study did not support any of the hypotheses. The regression analysis did show however that identification with the game character did predict aggression.

**Presentation Type and Session:** Poster IV

## What's in it For U.S.? Self Interest and United States Foreign Aid Allocation

**Brian Sarama**, Political Science

Faculty Mentor: Professor Patrick McGovern, Political Science

United States aid allocation has been a centerpiece of U.S. foreign policy in the half century since the Second World War. As the developing world continues to struggle with modernization, it is countries such as Israel, Iraq, and Egypt that remain atop the recipients list in U.S. aid allocation. For three decades, Israel has been a top recipient of U.S. aid, encompassing up to \$3 billion annually. A strong U.S. ally, a stable force in the Middle East, and a possible safe guard against the encroaching threats of states like Iran, the increasing funds to states such as Israel, suggest money is speaking louder than words. The rhetoric in Washington has always been the peaceful development of democracy worldwide; stable government, alleviation of poverty and illiteracy, combating disease, and so forth. However, the cancellation of civilian aid and the increasing military funds to the United States' top beneficiary suggests otherwise. Policy reflecting self-interest is evident, but it is the means by which these goals are met that are being called into question. It's democratization by way of the gun.

**Presentation Type and Session:** Poster I

## Why Did Socially Progressive California Approve Proposition 8?

**Philip O'Grady**, Political Science and **Henry Zomerfeld**, Political Science

Faculty Mentors: Professor Kyeonghi Baek, Political Science

Our project is focusing on the demographics of the voters who accounted for the passage of the proposition 8 legislation that prohibited same-sex marriage. The reason we are examining the demographics is due to the fact that one of the largest cities in

California, San Francisco, has a large gay population and is quite liberal because of that population. With this in mind, it is peculiar that such a piece of legislation passed. In the Massachusetts, a typically conservative state, the law prohibiting same-sex marriage was overturned. We want to examine the peculiarity of the voters in California, considering the dense gay population, in comparison with a small northeast conservative state like Massachusetts. We will examine a variety of works, statistics and census reports to come to a conclusion clarifying why such a piece of legislation would be turned down in a population that it would favor most.

**Presentation Type and Session:**

Oral – Social/Political Science

### **Women: The Unsung Heroes of the Civil Rights Movement**

**Sametra Toe**, Sociology/Journalism

Faculty Mentors: Professor Amitra Wall, Sociology and Professor Joseph Marren, Communication

This past January I had one of the most amazing and exhilarating experiences of my life. Through a school trip, I was able to visit various civil rights sites down South and relive moments of history. I was inspired by many of the prominent leaders and organizers of the event but there was one problem: they were mostly men. Many may not know, but women such as Ella J. Baker and Joanne Bland risked their lives and worked tirelessly to put together the many famous campaigns/protests that we all know of today. Therefore, I will be presenting a poster at this conference profiling some of these women. The poster will also focus on their efforts and attempt to connect historical tradition while applying sociological theory about gender. Audiences can expect pictures, concepts, and stories on the poster.

**Presentation Type and Session:** Poster II

### **World in a Rubbermaid Container: The Role of the Object in Memory**

**Wendy Hilleren**, HON 400: All College Honors Colloquium

Faculty Mentors: Professor Allen Shelton, Sociology and Professor Andrea Guiati, Director, All College Honors Program

Robert Hirsch's "World in a Jar: War & Trauma" consists of 850 jars, each one filled with a black and white photograph from various points in history. When arranged, the jars are stacked four tall, and the body of the piece weaves like a strand of DNA, or a monstrous serpent, across a white table. Hirsch gives the images no caption. Instead, he leaves it to the viewer to supply the context, whether correct or not seems irrelevant. I have my own world in a jar. Actually, the jars are Rubbermaid containers, filled with my own trauma. The containers are hidden away in a closet; they themselves are carefully contained under a layer

of clothing. I occasionally unearth them to view their contents. Unlike Hirsch's jars, I can open these containers. There is no context for the contents: a collection of records, a quilt, and a pile of photographs. When I open them, though, I can hear my father singing. In *A System of Objects* Jean Baudrillard argues that there are colossal consequences when objects take the place of human relationships. In this piece, I use my own personal affects and memories to explore Baudrillard's theory.

**Presentation Type and Session:**

Oral – Arts, Journalism, Health, and Social Sciences





