

Student Research and Creativity Exposition Committee:

Ziya Arnavut, Computer and Information Sciences
Paul Blanchet, Communication Disorders and Sciences
Maggie Bryan-Peterson, Sponsored Programs
PJ Corron, School of Music
Jack Croxton, Office of Student Creative Activity and Research
Jennifer Dyck, Psychology
Wendy Dunst, Graduate Studies
Leanna Greenberg, Undergraduate Student Representative - Psychology
Tracy Horth, College of Arts and Sciences
David Kinkela, History
Kate Mahoney, Language, Learning, and Leadership
Jill Marshall, Curriculum and Instruction
Dixon Reynolds, Theatre and Dance
Nicholas Sard, Graduate Student Representative - Biology
Whitney Riley, Undergraduate Representative - Psychology
Jonathan Titus, Biology
Peter Tucker, Visual Arts and New Media
Ivani Vassoler-Froelich, Political Science

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

Michael Barone and Jonathan Woolson, Public Relations
Patty Herkey and Paula Warren, Publication Services
Kevin Cloos, Mark Delcamp, and Facilities Services
Virginia Horvath, Vice President for Academic Affairs
Michael Lemieux and Lisa Noody, Campus Life
Doug Johnson, and AIT Staff
Julie Sticek, Academic Affairs
Faculty Student Association

Welcome Statements

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Virginia Horvath, Ph.D., Vice President for Academic Affairs 3

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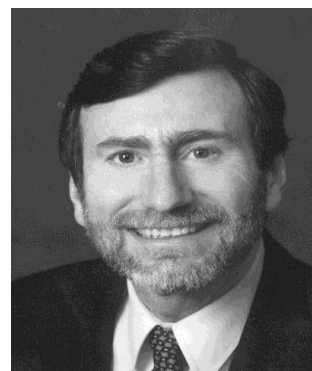
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“Our Vision Statement says SUNY Fredonia should be composed of a ‘community of learners.’ Nowhere is this goal more realized than in the scholarship and creative activities undertaken by our faculty and students. The Student Research and Creativity Exposition shows how students are able to utilize their classroom knowledge to address real life issues, to demonstrate their mastery of complex subjects, and to clearly and effectively articulate their intellectual accomplishments. Additionally, the ever expanding number of joint faculty/student research projects has become a hallmark of our university. I commend everyone involved in making this year’s exposition a major success.”



Sincerely,

Dennis L. Hefner, Ph.D.
President

“Congratulations to the students and mentors whose work is featured in the 2011 Student Research and Creativity Exposition! As you can see from this Expo booklet and from interactions with the many students who are involved in today’s program, SUNY Fredonia offers opportunities for authentic scholarly and creative work across a range of disciplines, and this year we are featuring work that models community engagement as well. Our campus has the most important resources for accomplishing this kind of work: talented, curious students and faculty with the creativity, expertise, and commitment to guide those students in their projects. Regardless of what’s next after graduation—advanced studies or professional work in their fields—Fredonia students have the research, performance, and presentation skills to succeed.”



Sincerely,

Virginia Horvath, Ph.D.
Vice President for Academic Affairs

“The mission of the Office of Student Research and Creative Activity is to promote and support student scholarly activity and creative work across the SUNY Fredonia campus. Such an endeavor is integral to the teaching and learning experience. It provides an opportunity for students to become closely affiliated with a faculty mentor and to develop skills and knowledge that will benefit them significantly in the future. Clearly, both students and faculty gain from such activity, and therefore it is important that the institution make a concerted effort to promote such collaborations. Thus it is encouraging to see that this kind of student learning is a component of our Fredonia Plan.



I am very pleased by the level of participation in this year’s Research and Creative Activity Exposition and I am truly impressed by the quality of our students’ work. They should indeed be proud of their considerable accomplishments. For many of them this is the capstone experience of their academic careers. Furthermore, I would like to commend all of the faculty mentors for the time and energy that they have devoted to supervising these projects. Thanks to everyone who has contributed to this special day of celebration.”

Sincerely,

Jack Croxton, Ph.D.
Director of the Office of Student Creative Activity and Research

“Student research and creative endeavors are a critical component of the intellectual vitality of our university. These activities of critical inquiry are the authentic application of what is learned from textbooks, reference materials, and the classroom. These application projects also provide a rich opportunity for faculty and students to collaborate as active partners in applied scholarship. The Student Research and Creativity Exposition provides our campus learning community with an event to showcase and celebrate the quality of academic engagement of our students. Congratulations to all who have participated in this most excellent event!”



Sincerely,

Christine Givner, Ph.D.
Dean, College of Education



“This year’s Student Research and Creativity Exposition showcases the diverse range and high quality of student creativity and scholarship at SUNY Fredonia. This impressive display of intellectual and creative achievement provides tangible evidence of the depth and variety of learning opportunities and close faculty-student collaboration available across campus. I applaud and congratulate the student participants, faculty advisors, and members of the Office of Student Creative Activity and Research for making this successful event possible.”

Sincerely,

Kevin P. Kearns, Ph.D.
Associate Vice President for Graduate Studies and Research

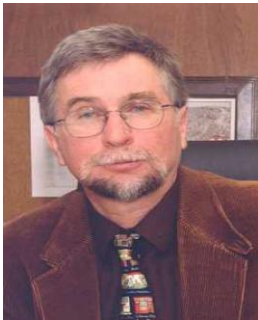
“The examples of collaboration between faculty and students and interdisciplinary student teams represented in the SUNY Fredonia Student Exposition are perfect illustrations of our University motto “Where Success is a Tradition.” We have brought together our best students and faculty to form a true “learning community” that has advanced knowledge in their respective fields, produced extraordinary creative works, and brought the theories and concepts learned in a course alive to solve a problem or advance an idea.

These projects, works of art, research reports, experiments, and demonstrations whether created by an individual or a team represent the “best learning outcomes” of our University. Students have the opportunity to work with each other in interdisciplinary teams; with faculty from across the University; with leaders of profit, non-profit and governmental organizations; with students and members of the communities in the region; and experience learning opportunities that involve actively engaging their knowledge.



With the opening of the new SUNY Fredonia High Technology Incubator, these projects will include the entrepreneurs at the cutting edge of their fields who will make a contribution to the regional and national economy by making their ideas into tangible products and services for their chosen customer base. Congratulations to the students, faculty, and organizations that participated in the Student Exposition!”

Russell P. Boisjoly, D.B.A.
Dean, School of Business



“Some people would like to claim that research is in competition with teaching, that there is a dichotomy between those faculty who are strong teachers and those who are strong researchers. The fact is, helping students to engage in research and creative activity, allowing them to participate in the scholarly and creative work of faculty, is one of the highest and most effective forms of teaching. Students can understand the value of intellectual and creative activity best when they are actual participants within the process of intellectual exploration or artistic creation. To encourage student research and creative activity is to take students seriously as fully enfranchised partners within the process of their education. Faculty at Fredonia do this very well, and today we celebrate some of the special results of our tradition of helping students become active learners. I congratulate the students who participate in today’s events, and I commend the faculty who have directed and inspired these student efforts.”

Sincerely,

John Kijinski, Ph.D.
Dean, College of Arts and Sciences

Thursday, April 28, 2011
Williams Center
1:00 p.m. to 7:00 p.m.

All exhibits will be available for viewing throughout the day – students are scheduled to be present to answer questions at the indicated times.

POSTER AND OTHER PRESENTATIONS
Multi-purpose Room

1:00 p.m. to 1:30 p.m.

SUNY MEU

Muhammed Ammash, Esra Alpay, Michael Dean, Brian Leach, Dara Levy, Brandon Napieralsky, Ayse Nil Osmanoglu, Max Radley, Anders Palm, Richard Rogers, Alexander Stone, Brian Leach, Political Science

Classroom Bias

Elizabeth Bauza, Psychology

Image Segmentation

Irfan Can Buyukyildiz, Computer and Information Sciences

County Health Department

Dana Corieri, Sociology

Spectroscopy of High Angular Momentum Rydberg States of the Hydrogen Molecule

Jarod Grosso, Physics

The effect of subliminal priming on memory

Michelle Lorenzetti, Psychology

Political Cultural and Social Change

Ashley May, History

Social Marketing in Public Health

Paul Mercado, Sociology

Campus Climate

Lauren Piche, Biology

Perceptions of Body Images Between the Same and Opposite Gender

Whitney Riley, Michelle Lorenzetti, Elizabeth Bauza, Psychology

Effects of Poverty on Children in Atitlan, Guatemala

Emily Schultz, Political Science

Challenges Facing Children in Foster Care and their Caregivers

Christina Self, Psychology

Presentation of Costume Design Rendering at USITT's annual Conference

Anna Slocum, Theatre and Dance

Preschool Children Explain Sequencing Choices to a Dog a Human and a Stuffed Dog
Heather Tyktor, Brittany White, Psychology

In Situ Real-time Visualization of Protein-mRNA Interaction- Execution of a novel approach for the visualization of grk mRNA and Sqd protein interaction within a developing living Drosophila oocyte
Alicia Watson, Biology

1:30 p.m. to 2:00 p.m.

Delta Chi
Evan Breloff, Nate Zager, Chris Schilling, Community Service Delta Chi

Glass Boxes to Replace Black Boxes
Ahenk Er, Computer and Information Sciences

Analysis of WiMAX Scheduling Algorithms
Erdem Erdogan, Computer and Information Sciences

Perceptions of Liking (as moderated by proxemic choice, gaze, and gender of a target)
Leanna Greenberg, Psychology

Grapes and Wines
Heidi Johnson, History

Sigma Kappa Philanthropies
Amanda Kellner, Communication

Preschool children use more words to tell a story to a dog than a human.
Leah Kerns, Leanna Greenberg, Psychology

Flow Volume Measurement in Normal Adults Utilizing a Paradoxical Vocal Fold Dysfunction Treatment Protocol
Kazlin Mason, Communication Disorders and Sciences

Techniques to Monitor and Test for SLA Compliance in an MPLS-Diffserv Domain
Arinc Ozgun, Computer and Information Sciences

Design and Implement a web portal for medical emergency disaster situation
Hakan Por, Computer and Information Sciences

Chautauqua Says Yes to Women Voters: Western New York's Support for Women's Suffrage
Whitney Riley, Carolyn Klotzbach, Christine Henning, History

Isolation and identification of airborne bacteria in hospitals to determine the effectiveness of air sanitization filters
Yegor Svirid, Michael O'Hara, Biology

Molecular Characterization of Microbial Species Located in Barium Rich Regions of Canadaway Creek
Jessica Wales, Biology

2:00 p.m. to 2:30 p.m.

A Retrospective Analysis of FECS
Brittany Abrams, Psychology

Fredonia for St. Jude
Meagan Allers, Curriculum and Instruction

A Retrospective Analysis of the Westfield Summer Sports and Recreation Program

- Robert Blakely, Psychology
- A Retrospective Analysis of the 408th Human Resource Company*
Lauren Braun, Psychology
- A Retrospective Analysis of the SUNY Fredonia Club Hockey Team*
Craig Canalungo, Psychology
- A Retrospective Analysis of the Town of Cheektowaga Youth and Recreation Department*
Gregory Craft, Psychology
- A Retrospective Analysis of the Kumon Math and Reading Center*
Susan Cronin, Psychology
- The Effect of an /r/ Articulatory Disorder on Undergraduate Listener's Perceptions*
Susan Cronin, Psychology
- A Retrospective Analysis of the SellingHive Business at the Fredonia Incubator*
Steven D'Eredita, Psychology
- A Retrospective Analysis of McDonald's*
Alex Deering, Psychology
- Stage Management Mentor Project*
Katherine Duprey, Theatre and Dance
- A Retrospective Analysis of Dillinger's Celtic Pub vs. the Raleigh Baseball Institution*
Jordan Doolittle, Psychology
- A Retrospective Analysis of Hotel Indigo*
Bryant Faison, Psychology
- Environmental Policy in Practice: Single Use Bag Levy*
Eric Fawcett, Amanda Bussom, Chemistry
- Testing for IRES Translation of the gurken RNA*
Janelle Gabriel, Biology
- The effects of dangerousness and causal explanations on stigma toward schizophrenia*
Justine Gabreski, Psychology
- Preparation of Polymer Foam That Contains Membrane Protein*
Ashley Hanner, Biology
- Multiple Components in the Process of Utilizing Green Algae as a Source for Biofuels*
Steven Kolenda, Biology
- Italian*
Gina LanFranchi, Modern Languages
- Standard & Poor's Market Insight*
Kevin Marciniak, Sam Tootle, Business Administration
- Method of Recovery*
Danielle Palbot, Stephanie Andrasek, Julie Roszak, Jenna Austin, Sport Management and Exercise Science
- Preschool children have faster and more accurate memory performance in the presence of a do.*
Whitney Riley, Michael DeJesus, Psychology

A Review of Dissociative Identity Disorder Research: 2000-2011
Alexandria VanBergen, Eric Walsh, Psychology

Consumer Attitude in Print Advertisements
Allison Westphal, Psychology

2:30 p.m. to 3:00 p.m.

Weight Gallery
Zach Daily, Computer and Information Sciences

A Retrospective Analysis of Delta Chi Fraternity
Mark Fanton, Psychology

Reading Workshop: An Academic Journal composed by teacher candidates for teachers and students in the modern day classroom
Louis Frankel, Leah Urtel, Sara Shinder, Jill Durland, Chris Zelna, Evan Giacomini, Ashley Laporta, English

A Retrospective Analysis of Budweys Supermarket
Melissa Fuller, Psychology

The Influence of Causal Explanations on Mental Illness Stigma
Keenan Foulke, Psychology

WIC Program
Sarah Gilbert, Public Health

A Retrospective Analysis of the Fredonia Club Field Hockey Team
Kristen, Grabowski, Psychology

A Retrospective Analysis of the Rochester Rhinos
Joshua Guarino, Psychology

A Retrospective Analysis of the Mental Health Association of Nassau County
Brittany Hagemann, Psychology

A Retrospective Analysis of the Sigma Kappa Sorority
Alyssa Hancock, Psychology

A Retrospective Analysis of SUNY Fredonia Intramurals
Michael Hite, Psychology

A Retrospective Analysis of WNYF TV
Elizabeth Lorenzen, Psychology

Family Planning for the Future
Rachel McMahan, Bethany Jones, Sociology

A Retrospective Analysis of New York and Company
Olivia Merisol, Psychology

A Retrospective Analysis of WKBW TV
Jon Messinger, Psychology

Using Lojban as an Intermediate Step in Natural Language Processing Systems
Adam Nash, Computer and Information Sciences

Vietnam War

Connor O'Brien, History

The Corporate History of The Chautauqua/Erie Grape Belt

Amanda Sleasman, Brian Connelly, Daniel McCarthy, Kenneth Pacos, History

My Work in 2010

Danielle Waterman, Theatre and Dance

3:00 p.m. to 3:30 p.m.

Interquark potential of the monopole-suppressed 4-d SU(2) lattice gauge theory via blocked Wilson loop analysis

Philip Arndt, Physics

Analysis of high-angular momentum Rydberg states of rotationally excited hydrogen molecular ions

Cody Chambers, Physics

Human's Memory Function

Samantha Corsi, Kristin Olbrich, Tyler Bernet, Emma Gaskell, Sport Management and Exercise Science

Mothers' Support for Preschoolers' Development of Autobiographical Memory

Ashley Holmes, Psychology

The Importance of Public Health Services to the Community

Kara Jeziorski, Sociology

Family Mealtimes as Social Practice

Christina Marsh, Social Work

A Retrospective Analysis of Friendly's Restaurant"

Ashley Onorati, Psychology

A Retrospective Analysis of Tops Friendly Markets

Tiffany Place, Psychology

*Analysis of Site Fidelity and Movement Patterns in Potamodromous and Lake-Resident Smallmouth Bass (*Micropterus dolomieu*) in Lake Erie*

Nicholas Sard, Will Pszonak, Biology

A Retrospective Analysis of Arby's vs. Anderson's

Jaclyn Rabent, Psychology

A Retrospective Analysis of Elbers Lanscape Service

Sara Schmidt, Psychology

A Retrospective Analysis of Market in the Square

Tina Schwartzmeyer, Psychology

A Retrospective Analysis of the Holiday Inn vs the Byrncliff Hotel

Samantha Seewaldt, Psychology

A Retrospective Analysis of Fisher Scientific

David Suatoni, Psychology

A Retrospective Analysis of Police Athletic League

Matthew Sullivan, Psychology

OpenMP a Portable Solution to Parallel Programming
Zachary Swanson, Computer and Information Sciences

A Retrospective Analysis of the Kaisen-Misakikou Restaurant
Tokio Takahashi, Psychology

Transcontinental Reception of Mark Twain
Brendan Warren, English

A Retrospective Analysis of the Kitty Hoynes Irish Pub and Restaurant
Richard Webster, Psychology

The missing Ink found in translation of Gurken
Lindsey Wittmeyer, Psychology

A Retrospective Analysis of the SUNY Fredonia Men's Club Hockey Team
Andrew Wright, Psychology

3:30 p.m. to 4:00 p.m.

Income Distribution in the United States
Sean Brown III, Political Science

Air Force Resources
Lisa Carlson, English

Chocolate Milk Study
Julie Clifford, Sport Management and Exercise Science

SUNY Fredonia LGBTQQ Campus Climate
Michael DeJesus, Psychology

Mathematics Lessons with Potential from Mathematics Teachers with Potential
Ryan Gerwitz, Caitlin Greiner, Mimi Gulick, Michelle Hempel, Jessica Kennis, Courtney Kingston, Rebecca Mullen, Brian Quinn, Kelsie Rayburn, Alyssa Ruscio, Douglas Schwartz, Kendelle Sutton, Jenna Tatu, Zachary Teetsel, Michelle Terranova, Carrie Wojtaszczyk, Mathematical Sciences

National Poetry Month: Celebrating Poetry On and Off the Page
James Hill, Lacey Daley, Casey Falco, Shane Hemmer, Saffi Rigberg, Carly Salzburg, Tiffany Wood, English

My Daddy is a Logic Geek
Alice Hodge, Philosophy

Chautauqua County Grape Industry
Jacob Michaels, William Wynkoop, Michael Hallman, Erik Bentley, History

Are mandatory arrest laws (for domestic violence) effective?
Alexandria Moss, Political Science

Dehydration
Michael Raheb, Kimberly Fitzgerald, Christopher Murphy, Anne Fulkerson, Sport Management and Exercise Science

Forms of Rebellion
Chelsea Ringen, History

Effects of exhaustive exercise on mental and physical reaction time
Jordan Simone, Sport Management and Exercise Science

5:00 p.m. to 5:30 p.m.

The Impact of Information-Processing Styles and Television Viewing on Body Image
Stephanie Cook, Kayla Griewisch, Kara Jeziorski, Psychology

Watermarking Techniques
Ozgun Erensoy, Computer and Information Sciences

SUNY Fredonia Food Waste Assessment Project
Hannah Farley, Environmental Science

Optimization of signal processing / retrieval using maximum-weight bipartite matching algorithm
Zhuojun Fu, Computer and Information Sciences

Assessment of Narrative Development in Pre-School Spanish-Speaking Children: A Developmental Approach Using the Index of Narrative Complexity
Krista Hammer, Communication Disorders and Sciences

Public Health and Biology: Working together to improve Oral Health in Schools
Victoria Long, Public Health

Lead Prevention Poisoning
Amanda Potkovick, Jessica Helper, Sociology

Applications of the Simplex Algorithm in Economics
Marc Scapelitte, Computer and Information Sciences

Maximum Flow Algorithm
Zach Swanson, Computer and Information Sciences

5:30 p.m. to 6:00 p.m.

Presidents and Policy
Matt Anthony, History

Zinophobia
Don Brenner, English

The Isolation and Analysis of Synthetic Musks
Amanda Button, Barry Moore II, Chemistry

Faux Orgasms - Faux Empowerment?: Women's Experiences with Faking Orgasm
Amy Fisk, Psychology

Network Routing Solutions using Dijkstra's Algorithm
Allison Gehring, Computer and Information Sciences

Telling Authors' Stories Through the Multi-Genre Research Project
Kelsey Polhemus, Kayla Carucci, Leslie Cairns, Emily Entress, Lauren Rothrock,
Shaena Fleischer, Sarah Pirsaznuk, Elizabeth Krok, Laura Eisenhauer, Samantha Ferrante,
Deborah Balicki, English

Trip through Italy
Amanda Rogers, Gina Lanfranchi, Modern Languages

Communication and Public Health: Making Connections
Samantha Smith, Stephanie King, Public Health

6:00 p.m. to 6:30 p.m.

Effects of a Training Regiman
Ethan Richardson, Chad Rush, Leonard Smith, Judson Quimby, Sport Management and Exercise Science

6:30 p.m. to 7:00 p.m.

EEG Signals Compression
Arda Gumusalan, Computer and Information Sciences

Application of Pseudo-distance to Lossless Coding of Color-mapped Images
Basar Koc, Computer and Information Sciences

ORAL PRESENTATIONS
Room S121

1:00 p.m. to 1:20 p.m.

The Best Laid Plans of Women: How Reception Shortchanged Feminist Theory
Tara Escudero, English

1:40 p.m. to 2:00 p.m.

Strive Ministries
Kathryn Pilgrim, Leanne Albro, Maggie Ayala, Joshua Baker, Kaitlin Birkel, Christine Chamberlin, Jacob Colby, Christopher Doan, John Gabriel, Adam Glasier, Hilary Lee, Paul McFarland, Lauren Moody, Darren Norris, Lindsay Rollins, Jenna Streeter, Casey Trask, Aubrey Warner, Erin Watkins, Rob Wilson, Volunteer Services

2:20 p.m. to 2:40 p.m.

Shakespeare's Thersits
Heidi Frame, English

2:40 p.m. to 3:00 p.m.

Integration and Social Stratification
Dawn Chamane Bush, Political Science

3:00 p.m. to 3:20 p.m.

Live Til the End
Laura Evans, Ethan Cerne, Shane Ammering, English

3:20 p.m. to 3:40 p.m.

Simulating Human Memory in Wireless Robots Using Semantic Networks
Renford Rowan, Computer and Information Sciences

3:40 p.m. to 4:00 p.m.

Knowledge and Awareness of the Vocal Mechanism and Care among University Voice Majors
Allison Miller, Communication Disorders and Sciences

5:00 p.m. to 5:20 p.m.

Tools that globalization provides to fight or promote an internal war: A study of a troubled Mexico in the globalized world

Lorena Holguin, Political Science

5:20 p.m. to 5:40 p.m.

Bias of the Fourth Estate in Amiri Baraka's "Somebody Blew Up America"

Jennifer Benson, English

5:40 p.m. to 6:00 p.m.

The Discover India project

Marisa Caruso, Shannon Mann, Ashley Robinson, Briana Kelly, Theatre and Dance

6:00 p.m. to 6:20 p.m.

Conversations with Ghosts

Andrew McGirr, English

6:40 p.m. to 7:00 p.m.

SIFE

Chris Hellberg, ReneeLynn Maier, Kevin Marciniak, Stephany Zambito, Business Administration

ORAL PRESENTATIONS

Room S103 – Pucci Room

2:00 p.m. to 2:30 p.m.

The Trident Reading

Brittany Neddo, English

2:30 p.m. to 2:50 p.m.

Book Trailers: Connecting Audio and Visual Literacy's with Writing Technology

Abigail Gray, Natalie Weber, Language, Learning, and Leadership

5:30 – 5:50 P.M.

A Room with a View: Best Practices in English as a Second Language Instruction

Nichole Nichter, Casey Trask, Language, Learning, and Leadership

VISUAL ARTS AND NEW MEDIA PRESENTATIONS

Room G138/Multi-purpose Room

Opening Reception at 1:00 p.m.

Animation/Illustration Production

Kim Zazzara, Morgan Burns, Fred Duchow, Afura Fareed-Muhammad, Michael Hernandez, Lindsay Holmes, Cassie Johnson, Katie McCarthy, Jason Rappold, Carlos Sanchez, Tom Storm, Mayumi Tanoue, Matt VanLieshout, Elizabeth Visco, George Wagner, Visual Arts and New Media

AIGA, Graphic Design Club

Kim Steinhilber, Jackie Bowser, Nicole Hutton, Rachael Walden, Graphic Design

Design Inspires (My Election)

Nicole Hutton, Visual Arts and New Media

Also showcased in Room G138 will be a sampling of time-based work and documentation of personal research from the Department of Visual Arts & New Media.

MUSICAL PERFORMANCES

The Spot/Campus Grind

1:30 p.m.

Tap Dance

Title: Zoot Suit Gang

Music: Zoot Suit Riot by Cherry Poppin' Daddles

John Benware, Amanda Kellner, Briana Kelly, Katie O'Keefe, Jennifer Sharlette, Michael Valvo, Theatre and Dance

3:00 p.m.

Audition Techniques

Kimberly Abrams, Jonas Barranca, Kyle Blount, Elena Box, Steve Brachmann, Shawn Farrell, Charlotte Foster, Lauren Gismondi, Rachel Kodweis, Jennifer Lefsyk, Scott Malkovsky, Matt Nersinger, Thomas Raynor, Elizabeth Ruff, Emma Traubert, Mike Valvo, Theatre and Dance

3:30 p.m.

Sound of Music

Jennifer Lefsyk, Richard Rosenthal, Anna Landy, Steve Russell, Theatre and Dance

Numbers "The Sound of Music", "Edelweiss", "Something Good", "16 Going on 17"

Dancing Performance - Room S104

1:30 p.m.

Trunk Trouble

Michelle Tartaglia, Elizabeth Goretti, Theatre and Dance

Assisted by: Randy Hample, Rhiannon LaCross, Katie Duprey

5:00 p.m.

Trunk Trouble

Randy Hample, Michael Manganiello, Theatre and Dance
Assisted by: Thomas Raynor, Michelle Tartaglia

Volunteer Services Presentations

Campus Climate

Lauren Piche, Biology

(poster presentation at 1:00 p.m.)

Delta Chi

Evan Breloff, Nate Zager, Chris Schilling, Community Service Delta Chi

(poster presentation at 1:30 p.m.)

Fredonia for St. Jude

Meagan Allers, Curriculum and Instruction

(poster presentation at 2:00 p.m.)

Sigma Kappa Philanthropies

Amanda Kellner, Communication

(poster presentation at 1:30 p.m.)

Strive Ministries

Kathryn Pilgrim, Leanne Albro, Maggie Ayala, Joshua Baker, Kaitlin Birkel, Christine Chamberlin, Jacob Colby, Christopher Doan, John Gabriel, Adam Glasier, Hilary Lee, Paul McFarland, Lauren Moody, Darren Norris, Lindsay Rollins, Jenna Streeter, Casey Trask, Aubrey Warner, Erin Watkins, Rob Wilson, Volunteer Services

(oral presentation at 1:40 p.m.)

GRADUATE STUDENT PRESENTATIONS 5:00 P.M. TO 7:00 P.M. SECOND LEVEL, WILLIAMS CENTER

*The effects of artificial night lighting on the Little Brown Bat (*Myotis lucifugu*)*

Laura Alsheimer, Biology

Area Awareness: Middle School Students' Perspective

Reid Bland, Mathematical Sciences

*The identification and characterization of the mutant gene, CA231, in *Drosophila melanogaster**

Malachi Blundon, Biology

A Study of the Preference and Performance of Students on Mathematics Word Problems in Comparison to Computational Problems

Kristi Jo Bockhahn, Mathematical Sciences

The study of the effects of the National Mathematics Standards and New York State Mathematics Standards in the high school classroom

Jennifer Burr, Mathematical Sciences

A Study of the Effects of Crib Sheets on Test Preparation in a Collegiate Classroom
Gregory Cotton, Mathematical Sciences

Phenotypic indicators of fitness in the songs of male house crickets
Andrea Covey, Biology

Students with Cystic Fibrosis
Jessica Diesenber, Curriculum and Instruction

A Study of the Effects of Grading Homework Randomly on Completeness and Accuracy
Clare Eckert, Mathematical Sciences

After School Programs Reduce Students and Schools From Failing
Debra Zibreg Hargis, Curriculum and Instruction

Mothers' Support for Preschoolers' Development of Autobiographical Memory
Ashley Holmes, Psychology

A Study of the Effects of Age on Division Related Problem Solving Strategies
Megan Larson, Mathematical Sciences

A Study of the Effects of Learning the FOIL Method on Students' Ability to Perform Polynomial Multiplication
Daniel Maloney, Mathematical Sciences

A Study to Determine Which Grade Level Will Have a Higher Accuracy Rate
Ashley Myers, Mathematical Sciences

Mystery Motivators Reduce Poor Math Performance And Oppositional Behaviors in Fifth Grader
Nirasha Premaratne, Curriculum and Instruction

*Analysis of Site Fidelity and Movement Patterns in Potamodromous and Lake-Resident Smallmouth Bass (*Micropterus dolomieu*) in Lake Erie*
Nicholas Sard, Will Pszonak, Biology

The Study of How Non-Mathematics Majors Solve Linear Programming Problems
Allison Spencer, Mathematical Sciences

Division Misconceptions in the Middle School Mathematics Classroom
Sarah Taylor, Mathematical Sciences

A research based study in the best day to assign homework and the use of different extrinsic rewards in order to get students to complete homework
Nicholas Williams, Mathematical Sciences

Students' Preferences to Solving Quadratic Equations
Joshua Zebracki, Mathematical Sciences

Graduate Student Oral Presentations Room S103

2:30 p.m.

Book Trailers: Connecting Audio and Visual Literacies with Writing Technology
Abigail Gray, Natalie Weber, Language, Learning, and Leadership

5:30 p.m.

A Room with a View: Best Practices in English as a Second Language Instruction
Nichole Nichter, Casey Trask, Language, Learning, and Leadership

REMARKS
S104 Williams Center

4:00 p.m. Dr. Dennis Hefner, President

 Dr. Virginia Horvath, Vice President for Academic Affairs

 Dr. Jack Croxton, Director of the Office of Student Creative Activity and Research

KEYNOTE SPEAKER
S104 Williams Center

4:15 p.m. Keynote Speaker – Dr. Matthew T. Hurtgen, 1996 Fredonia Alum
 Assistant Professor at Northwestern University

The Chemical Evolution of Earth's Atmosphere and Oceans

Matt Hurtgen was raised in Dunkirk, NY and earned a Bachelor's degree in Political Science from the University of Rochester. Following graduation, he worked for the American Plastics Council in Washington, DC where he was responsible for tracking state legislative activity affecting the plastics industry. Yearning for something different, he sailed on the "HMS" Rose (wooden Tall Ship) as a deckhand and then worked for a health care utilization vendor in southern California before returning to western New York and receiving another Bachelor's degree—this time in Geosciences from SUNY Fredonia (1996). In 1998, he received his M.S. degree in Geosciences from the University of Missouri, Columbia and explored how sulfur is preserved in sediments deposited below oxygen deficient marine waters. He earned his Ph.D. in Geosciences from Pennsylvania State University in 2003 where he investigated the evolution of microbial sulfur species, snowball Earth events (global glaciation) and the rise of atmospheric oxygen ~600 million years ago. In 2003, he was awarded a National Research Council Postdoctoral Fellowship to explore Earth-surface processes related to the oxidation of Earth's oceans and atmospheres at Harvard University. In 2005, he joined the Northwestern faculty as an Assistant Professor in the Department of Earth and Planetary Sciences where he continues to investigate the chemical evolution of Earth's ocean-atmosphere system over the past ~1 billion years. Matt was awarded a National Science Foundation Faculty Early Development (CAREER) award in 2010.

RECEPTION IMMEDIATELY FOLLOWING

ABSTRACTS

Fredonia for St. Jude

Meagan Allers, Curriculum and Instruction

Mentor: Dr. Jean Pendl, Curriculum and Instruction

I have been asked by Volunteer services to share about Fredonia for St. Jude and what we do on Fredonia's campus. We hold an annual fundraiser called Up til dawn as well as many other side events. Last year we raised \$10,000 for the children of St. Jude and this year we have already raised upwards of \$14,000!

*The effects of artificial night lighting on the Little Brown Bat (*Myotis lucifugu*)*

Laura Alsheimer, Biology

Mentor: Dr. Karry Kazial, Biology

Bats, like other nocturnal species, could be at risk from the effects of artificial night lighting. Depending on the surrounding environment, a bat changes its echolocation calls accordingly to avoid obstacles and also to forage for insects. Our investigation considered that artificial night lighting may impact the behavior and use of echolocation. Sixteen *Myotis lucifugus* were captured from Chautauqua Institution in 2010. Four randomized trials (1min light off, 1 min light on, 30s light off & 30s light on, 30s light on & 30s light off) were performed for each bat by recording behavior and echolocation over 1 minute. Behavioral results show a difference in activity when bats are exposed to light on that then switches to light off. This is in contrast to no difference in activity when bats are exposed to a constant light treatment. We are also examining call structure for differences based on light treatment.

SUNY MEU

Muhammed Ammash, Esra Alpay, Michael Dean, Brian Leach, Dara Levy, Brandon Napieralsky, Ayse Nil Osmanoglu, Max Radley, Anders Palm, Richard Rogers, Alexander Stone, Brian Leach, Political Science

Mentor: Dr. Alex Caviedes, Political Science

Policy making in the European union is a prime example of the strengths and weaknesses of multilateral international organizations. Through participation in a simulation of an intergovernmental conference of the European Union at SUNY New Paltz on April 16 – 18, the Fredonia delegates played the roles of the heads of state and ministers of foreign affairs and interior of the following three countries: Bulgaria, Denmark, and Italy. Following their participation, students will write reports of their experiences, and in particular about the accomplishments of their delegation and the EU in general, as well as an analysis of the challenges that exist in multilateral negotiations.

Presidents and policy

Matt Anthony, History

Mentor: Dr. Peter McCord, History

What are the effects of the important presidential decisions in 1960? How do large presidential administrations policies loom over the general history of the 1960s

Interquark potential of the monopole-suppressed 4-d $SU(2)$ lattice gauge theory via blocked Wilson loop analysis

Philip Arndt, Physics

Mentor: Dr. Mike Grady, Physics

The presence of a phase transition in the gluon field has been observed via Monte Carlo simulations. This phase transition may be due to lattice artifacts (monopoles) which give a spurious confining potential. Simulations are run with an action that suppresses $SO(3)$ -Z₂ monopole configurations. This system remains in the deconfined phase for all couplings, supporting this hypothesis. Exploration of the lattice interquark potential in the monopole-suppressed theory has been hindered by random errors that accrue with quark separation. Interquark potential is determined via analysis of Wilson loops about the lattice which will be explored differently from previous attempts. Blocking of these loops allows for better overlap with the ground-state to determine the potential at large distances. This potential will help to answer an important question concerning coupling in the strong interactions: does the coupling continue

to grow at long distances (i.e. Perturbation theory) or does it approaches a fixed value, a so-called infrared fixed-point?

Classroom Bias

Elizabeth Bauza, Psychology
Mentor: Dr. Guy Boysen, Psychology

With the increase in classroom diversity on college campuses it is important for professors to be aware of effective responses to bias, but research on classroom bias is lacking. This study evaluated the ways in which professors can effectively handle classroom stereotypes. Participants read descriptions of teachers confronting or ignoring stereotypes. Then, they rated their own reactions to stereotypes and the effectiveness of professors' methods of handling different stereotypes. The analyses examined perceived response effectiveness and if teacher confrontations led student to have greater awareness of bias. Managing bias is a necessary part of a professor's job, and with more research on this topic professors can handle biases more effectively in their classrooms to ensure that all students are comfortable.

Bias of the Fourth Estate in Amiri Baraka's "Somebody Blew Up America"

Jennifer Benson, English
Mentor: Dr. Natalie Gerber, English

Media ownership plays substantial role in shaping the views of society. Amiri Baraka, the New Jersey poet laureate's piece, "Somebody Blew Up America" exemplifies his candid views of oppression on national and international levels through an immense catalog of events, groups and figures either experiencing or imposing tyranny. Even though he does not blatantly comment on the consequences of oppression in the media, Baraka demonstrates the results broadcasting corporations have in shaping the views of society by challenging the true oppressors and oppressed beyond commonly accepted classifications. His catalog forces the reader to unlock the historical significance of each figure both in the poem and to see the bias in the media all too frequently believed to be impartial. Corporate control of broadcasting enables manipulation of the news for commercial gain through the manipulation of news stories for corporate gain by the strategic editing of the historic record. By employing repetition, cataloging and evocative diction, Baraka conveys the necessity of ending oppressive actions on a global scale, including corporate controlled broadcasting.

Area Awareness: Middle School Students' Perspective

Reid Bland, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research examines how students solve area comparison problems in a middle school mathematics classroom. Determining the area of a polygon can be as easy as plugging numbers into a formula and using a calculator to find the results, but what happens when the formula is not given or there is no particular formula for the geometric figure given? It is hypothesized that middle school students will rely on their memory and area formulas to compare the sizes of two different geometric figures with measurements given in the diagrams, rather than an informal approach of "manipulating" the figures so that they can be visually or more easily numerically compared. Furthermore the informal approach is more accurate than the approach that uses

The identification and characterization of the mutant gene, CA231, in Drosophila melanogaster

Malachi Blundon, Biology
Mentor: Dr. Scott Ferguson, Biology

Our study will identify and characterize a novel mutation, CA231, in *Drosophila melanogaster*. This mutation affects a signaling pathway that is highly conserved throughout phylogeny, including humans. This pathway is required to establish the polarity of the *Drosophila* oocyte. Prior studies have demonstrated that the human homologue of a growth factor in this pathway as well as its receptor can act as oncogenes and they are expressed at high levels or mutated in many types of cancer. We intend to have the CA231 mutation mapped and identified by the end of the Spring 2011 semester. Once identified we will use the funds provided by this award to create rescue constructs and transgenic flies to confirm the identity of the gene. By identifying the gene that is disrupted in this mutant fly line, we will gain further insight into the mechanisms by which the cell regulates

A Study of the Preference and Performance of Students on Mathematics Word Problems in Comparison to Computational Problems

Kristi Jo Bockhahn, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores students' preferences and performance on computation problems versus word problems. It is hypothesized, when given a choice over solving a computational problem or solving a word problem, students enrolled in Prize Winning Mathematics will choose the computational problem over the word problem even though the word problem is less difficult than the computational problem. Also, students will have higher success rates on computational problems versus word problems.

Community Service Delta Chi

Evan Breloff, Nate Zager, Chris Schilling, Delta Chi

Mentor: Mr. Matthew Foster, Residence Director

We are a fraternity on campus called Delta Chi which enjoys servicing our community. We would like to showcase all of the community service we have been a part of in the last year. We have been involved in many community service events and would like to put together a poster presentation that gives a visual display of the various services we have done.

Zinophobia

Don Brenner, English

Mentor: Dr. David Kaplin, English

Zinophobia is a student run zine focusing on social satire, poetry, art, and general humor. We put out an edition every Thursday during the school year.

Income Distribution in the United States

Sean Brown III, Political Science

Mentor: Dr. Ivani Vassoler-Froelich, Political Science

In the United States, you cannot say income distribution without talking about income inequality. In America, the way that income is distributed is bizarre; only the top percentage of earners continues to receive the economic gains that have been realized by economic growth in this country, from 1970 to the present. Even more alarming is that earners with the most money pay the least in taxes, while their lower-income counter-parts pay the majority. In essence, America is supported by the middle-class, who constantly work, yet continue to have the least in resources. In my presentation I would like to focus on the effects that this distribution has on the country; the data is straight-forward, and I plan to use that as my launching point to delve into how this effects society: is this a sustainable course of development? I will explore this, and more, in my presentation.

The study of the effects of the National Mathematics Standards and New York State Mathematics Standards in the high school classroom

Jennifer Burr, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores the knowledge base of High School mathematics teachers with the New York State Mathematics Standards and the National Mathematics Standards. Additionally, this study will gain insight as to how educators apply this knowledge into their classrooms. It is hypothesized that New York State high school mathematics educators do not recognize, understand or apply the New York State Mathematics Standards or the National Standards.

Integration and Social Stratification

Dawn Chamane Bush, Political Science

Mentor: Dr. Ivani Vassoler-Froelich, Political Science

The large numbers of undocumented Mexican laborers are invisible in the United States, despite their economic contributions. This has led to roadblocks towards integration and social stratification. Through unclear U.S. legislation, the INS border control and internal labor market demand, undocumented

Mexican laborers have become marginalized and categorized in the United States. The goal of my research is to provide another view of U.S.-Mexican relations by focusing on immigration and its social aspects. As a result I would like to provide for people a different view of what it is like to be an undocumented Mexican laborer in the United States.

The Isolation and Analysis of Synthetic Musks

Amanda Button, Barry Moore II, Chemistry

Mentor: Dr. Mike Milligan, Chemistry

Synthetic musks are compounds used to scent personal care products such as soaps, laundry detergents and body sprays. These musks have been detected in several environmental samples that include fish tissue, sediment and water samples. It is suspected that these musks are entering the environment through waste water from water treatment plants. Many of these musks have been found to be toxic and can bioaccumulate. These musks are emerging chemicals of concern that are being monitored through the analysis of Great Lakes fish tissue samples. Some potential sources of synthetic musks were tested for the presence of any common musks and possible new musks. These samples were analyzed using a GC/MS and quantified by comparison to a musk standard.

Image Segmentation

Irfan Can Buyukyildiz, Computer and Information Sciences

Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

Image segmentation is an important research area in Computer Vision. Over the years many techniques have been proposed. Like a human visual system which processes a scene and makes human's to see the seen as a collection of objects rather than a composite image, the goal of the image segmentation is to produce a representation of the image that is easier to analyze by acting as a visual system to partition a digital image into its varied parts or object. Image segmentation is currently being used in several areas such as; Medical imaging (Locate tumors and other pathologies, Diagnosis, Study of anatomical structure), Face recognition, Machine vision (robotics). In the work, we will present some of the well-known image segmentation techniques such as Sobel, Hough and Canny for region, boundary and edge detection. We will then compare efficiencies of these techniques.

Air Force Resources

Lisa Carlson, English

Mentor: Dr. Kirsten Hanley, English

Air Force supervisors write performance reviews, letters of counseling, awards submissions, and many more types of documents. There is no formal training offered to members who are promoted to the ranks from which they'll write these documents. Resources are available in many places. This project was to collect those resources into an easy to use binder for use in my work center at Niagara Falls Air Reserve Base, and to share with other supervisors. Included are: official Air Force directives, bullet statement starters, formatting guides, and samples of each kind of document.

The Discover India project

Marissa Caruso, Shannon Mann, Ashley Robinson, Briana Kelly, Theatre and Dance

Mentor: Ms. Samantha Kenney, Theatre and Dance

In the three weeks we spent in India, the first J-term exchange to India opened up the opportunity to discover the vastness of exciting differences and similarities between two very distant lands. Learning about this foreign culture through its history, theatre, music and students allowed us to appreciate their way of life, as well as find new appreciation for our own...

Analysis of high-angular momentum Rydberg states of rotationally excited hydrogen molecular ions

Cody Chambers, Physics

Mentor: Dr. Erica Snow, Physics

When an electron is highly excited but still weakly bound to a positive ion core, it is known as a Rydberg state. An electron in a high-angular momentum (high-L) Rydberg states, will follow a nearly circular orbit and will not penetrate the ion core. This property allows the system to be described as nearly hydrogenic, for which we have an exact solution. Any measurable difference from the hydrogen analysis is due to

properties of the positive ion core such as polarizabilities and permanent monopole moments. The long range polarization model can be used to extract these fundamental properties from experimentally measured Rydberg energies. A presentation of the analysis of the rotationally excited ($u=0, R=2$) hydrogen molecular ion will be given. There are no previous experimental data checks to theory for this seemingly basic system and as such special attention will be given to any non-correlating results.

Chocolate Milk Study

Julie Clifford, Sport Management and Exercise Science

Mentor: Dr. Todd Backes, Sport Management and Exercise Science

Proposal Hypothesis: We are going to test the effects of low fat or fat free chocolate milk post workout. Findings have shown that chocolate milk leads to a higher concentration of glycogen in muscles 30 to 60 minutes after exercise. Another study also showed that increased CHO intake immediately following exercise results in faster rates of glycogen replenishment. Chocolate milk ingestion during recovery from heavy eccentric exercise improved peak torque and total workout during subsequent exercise.

Importance: We think that answering this question is important because it could be beneficial to people involved in athletics. If we can prove that chocolate milk assists in muscle replenishment it would create an alternative which may save people tons of money on post workout supplements. We feel that it is important to replenish your muscles post workout so that you can Prediction of outcomes: Our group agrees with the findings because there are many studies supporting this hypothesis. Because all of the research we have done, we believe that the experiment we will be completing will have a successful outcome in that chocolate milk will be proven to replenish muscles post workout.

The Impact of Information-Processing Styles and Television Viewing on Body Image

Stephanie Cook, Kayla Griewisch, Kara Jeziorski, Psychology

Mentor: Dr. Suthakaran Veerasamy, Psychology

A number of studies have assessed the impact of media on body dissatisfaction. Meta-analyses completed on both men and women indicate moderate effect sizes of exposure to the media and body dissatisfaction. Television viewing is one of aspects of media that affects the way in which individuals view their body image. The ways that individuals process information may also impact their perceptions. In the proposed study, the researchers seek to further examine these areas of interest and determine if there is a relationship between cognitive processing styles and the media in relation to body image.

Participants will complete a series of surveys: two related to body image, two related to information-processing styles, a television viewing instrument, and a demographic questionnaire. It is expected that more experiential individuals who view television programs such as soap operas and music videos will have a more negative body image than those who are rational.

County Health Department

Dana Corieri, Sociology

Mentor: Dr. Linda Dorsten, Sociology

I am working with the County Health Department and the family planning coordinator to try to bring more awareness to the public (children, teens, and parents), with issues that have been increasing, like driving safe, health, and sexual education, and to become more aware of the free clinics for free testing, birth control, and protection that is available. We are also trying to collaborate with the Department Of Motor Vehicles to get more information out into the public. We are planning to reach out to kids, teens, and parents by handing out free information when the teens come to the DMV to get there permits. With my major being Speech Pathology, I will be working in a school. I feel that there needs to be more Sex ED in schools and schools should have the founding for these programs, so children and adolescents know about the truths and myths in these areas.

Humans' Memory Function

Samantha Corsi, Kristin Olbrich, Tyler Bernet, Emma Gaskell, Sport Management and Exercise Science

Mentor: Dr. Todd Backes, Sport Management and Exercise Science

Our hypothesis is that a humans' memory function will increase as a result in performing exhaustive anaerobic exercise. We will test our hypothesis by having the subjects play a memory card game before and after the exercise protocol that we set up for them. The exercise protocol will be a High Intensity Interval Training (HIIT) routine that consists of a light 10 minute warm up walk on the treadmill, followed

by an immediate sprint (between 5-10 mph depending on the fitness level of the participant) for 45 seconds, followed by one minute of walking at half the miles per hour ran. This will be repeated 8 times so that the participant will feel physically exerted and drained when they play the second round of the memory game.

A Study of the Effects of Crib Sheets on Test Preparation in a Collegiate Classroom

Gregory Cotton, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores the role of crib sheets as a form of test preparation in a collegiate based classroom. It is hypothesized that students who construct a well thought out crib sheet will outperform students who didn't on a mathematical exam. This will be true whether or not the student was a high achiever or not.

Phenotypic indicators of fitness in the songs of male house crickets

Andrea Covey, Biology

Mentor: Dr. William Brown, Biology

Field crickets (Orthoptera: Gryllidae) produce three distinct song types that are used in different social contexts: the calling song, courtship song, and aggressive song. Males use calling song to attract females, and females locate males by phonotaxis. Once females locate males, males produce a qualitatively different courtship song, which is generally followed by mating. Males produce aggressive song when competing with other males for calling burrows as well as for direct access to females.

In the house cricket, *Acheta domesticus*, intraspecific variation within each song type is great; therein lies the potential that fitness-related information is being conveyed. The current body of literature has linked certain "beneficial" male phenotypes to song parameters, but little has been done to see how this information compares across song type. The aim of the current study is to determine the fitness-related information content of each distinct song and reveal potential similarities across social context.

The Effect of an /r/ Articulatory Disorder on Undergraduate Listener's Perceptions

Susan Cronin, Psychology

Mentor: Dr. Bruce Klonsky, Psychology

While there is lots of research regarding speech disorders in general, there is very little research regarding the 'r' articulatory disorder in adults, particularly with regards to others' perceptions. The present study aimed to examine students' perceptions of an individual with or without an 'r' articulatory disorder. The results showed that students viewed the individual with an 'r' articulatory disorder as less fluent, less intelligible, grammatically incorrect, and having more inappropriate levels of volume. They were rated as less competent, less organized, less credible, and less employable. These results are consistent with some of the previous literature that has showed the negative impacts of a speech disorder on a listener. Implications are discussed.

Weight Gallery

Zach Daily, Computer and information Sciences

Mentor: Dr. Gurmukh Singh, Computer and Information Sciences

I am designing a program to help theatre technicians when hanging equipment on stage. The program includes many preset weights that a user can select to determine how many 1" or 2" bricks should be added while in the weight gallery above the stage. This takes a lot of guess work and calculations out of the typical technician's life. The user will be able to select which lineset the weight is being added to and will be able to remove equipment as necessary. The application is a prototype written in Visual Basic for future Android applications.

SUNY Fredonia LGBTQQ Campus Climate

Michael DeJesus, Psychology

Mentor: Dr. Ingrid Johnston-Robledo, Psychology

The purpose of this study was to examine the campus climate for individuals who identify as sexual minorities on the SUNY Fredonia campus. This diverse population includes anyone who identifies as lesbian, gay, bisexual, transgender, queer, and questioning their sexuality. A survey was developed to assess various aspects of the quality of life for sexual minorities on campus as well as heterosexual

community members' perceptions of the campus climate for this population. Questions will assess perceptions of the general campus climate, incidences of harassment or bias against LGBTQQ individuals, reactions to the bias or harassment, and attitudes toward various programs and policies designed to improve the climate on campus for sexual minorities. We will present our preliminary findings of the campus-wide project as well as their potential implications for improving the campus climate for this neglected population.

Students with Cystic Fibrosis

Jessica Diesenber, Curriculum and Instruction

Mentor: Dr. Laura Geraci, Curriculum and Instruction

According to the Cystic Fibrosis Foundation, 1 in 3,000 babies are born every year with CF. Although a small percent of the population is affected by this disease there is a chance one of the 30,000 Americans with CF could end up in your classroom. Are you prepared? My poster session will provide information on the disease Cystic Fibrosis and explain the importance of teacher's knowledge of the disease. The poster will provide information such as an explanation of the disease, what students with Cystic Fibrosis (CF) have to endure, accommodations we need to make to our instruction/classroom and how we can make these students feel more comfortable in the classroom.

Stage Management Mentor Project

Katie Duprey, Theatre and Dance

Mentor: Mr. Dixon Reynolds, Theatre and Dance

I was part of a program designed specifically for Stage Managers and I will be presenting on Stage Management resources discovered and used in this program.

A Study of the Effects of Grading Homework Randomly on Completeness and Accuracy

Clare Eckert, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences,

This study investigates mathematics homework and motivators concerned with its' completion and accuracy. More specifically, this study is concentrated on how homework is graded. It is hypothesized that by grading homework randomly, students will more frequently; not only complete their homework, but complete it accurately.

Glass Boxes to Replace Black Boxes

Ahenk Er, Computer and Information Sciences

Mentor: Dr. Junaid Zubairi, Computer and Information Sciences

In my undergraduate study thesis, I'm discussing the idea of "Glass Boxes to Replace Black Boxes". Although it is not yet complete, I'm going to graduate this semester and won't be here next semester so I'd like to share my work in Expo. When an accident occurs on air, it is crucial to have the relative data to understand the causes to investigate and prevent such accidents in the future. To gather and keep the data crash-resistant black boxes and used. However in some cases, they cannot be found or severely damaged that the data cannot be obtained. To eliminate that, an idea of creating "glass boxes" which will transmit the data to pre-determined places to keep track of the aerial parameters is created. According to this idea the data will be sent using some type of connection and it will eliminate the need and financial burden of crash resistant black boxes and trying to find them after a crash.

Analysis of WiMAX Scheduling Algorithms

Erdem Erdogan, Computer and Information Sciences

Mentor: Dr. Junaid Zubairi, Computer and Information Sciences

WiMAX is the next-generation of wireless technology designed to enable pervasive, high-speed mobile Internet access to the widest array of devices including notebook PCs, handsets, smartphones, and consumer electronics such as gaming devices, cameras, camcorders, music players, and more. As the fourth generation (4G) of wireless technology, WiMAX delivers low-cost, open networks and is the first all IP mobile Internet solution enabling efficient and scalable networks for data, video, and voice. This thesis

proposes a analysis of WiMAX Scheduling Algorithms and adaptation of scheduling algorithms in terms of WiMAX Base Stations.

Watermarking Techniques

Ozgun Erensoy, Computer and Information Sciences

Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

Digital watermarking is the process of embedding information into a digital environment. The environment may be audio, image or video, for example. If the data is copied, then the embedded information is also carried in the copy. A digital environment may carry several different watermarks at the same time. Watermarking is used most commonly to identify the ownership of digital environment. There are other applications watermarking is used for besides ownership identification. These include authentication, monitoring, source tracking, covering communication between individuals and copy control. The main concept behind digital watermarking is modifying a portion of the bits in a file. These modified bits are used to store information specific to that file. The manipulated bits had to be persistent against attack. We investigated different methods to apply watermarking to digital images.

The Best Laid Plans of Women: How Reception Shortchanged Feminist Theory

Tara Escudero, English

Mentor: Dr. Emily VanDette, English

Feminist Theory is often reduced and distilled quite simply and readily into an irrelevant, outdated, or marginalized system of thought of study. Several "waves" of feminism helped developed the whole body of theory, including its inclusion and application of people rather than exclusion and categorizing. Feminist theory is based on a cultural, political, and obviously gender minded discussion of how we can develop and constantly amend views of sex and gender and their social contexts. I plan to use the current debate of defunding Planned Parenthood as a modern lens for the historical reception of gender theories. I will demonstrate how critical texts, news, and art forms such as poetry all fought for a voice to describe and shape feminism as is commonly perceived, and how some avenues of reception had a much greater effect in creating impressions of feminism, which still resound today.

Powershift 2011

Tara Escudero, Mitchell Newport, Jaclyn Hoffman, Hannah Farley, Brian Bishop, Jessica Lee, Jennifer Benson, Rachel Radicello, Amie Salisbury, Sierra Haney-Rolf, Katie Tyczynski Biology

Mentor: Dr. William Brown, Biology

A team of about 20 students and myself will be attending Power Shift 2011 (<http://powershift2011.org/>) in Washington D.C. It is a conference that brings together thousands of people from across the country to discuss and act on environmental, public health, social justice, and an array of other issues. There will be presentations, panels, workshops, canvasses, and opportunities to speak to the public and our representatives about the issues that concern us and the steps needed to address these issues. We will host a panel to present the highlights of our experiences, including information on the issues we personally find the most compelling, events and campaigns we have already done as a community and our plans for the future after attending this event. Most importantly the panel will be geared toward educating others of students' initiatives in environmental and social justice and how others can participate.

Live Til the End

Laura Evans, Ethan Cerne, Shane Ammering, English

Mentor: Dr. Kathryn Moore, English

This fictional short story follows 12 year old Sebahive from Rwanda in the year 1994 and 12 year old Paul from the United States of America in the year 2019. The stories parallel each other to bring out the horrific Rwandan Genocide that killed around 1 million people and the underestimated hurt of Bullying in American Schools. With faith and courage, Sebahive and Paul are able to stand up for themselves and not give in to the harassment, violence and death threatening them. Instead, they embrace their misfortunes and live their ways and ideals til the end. This historically based fictional tale was written to promote through story-telling the need for cultural diversity and pluralism.

SUNY Fredonia Food Waste Assessment Project

Hannah Farley, Environmental Science

Mentor: Dr. Sherri Mason, Environmental Science

Food represents a storage of chemical energy. When eaten, our bodies slowly released this energy through series of biochemical reactions which allow us to function. Similarly the chemical energy within waste food products can be released under control conditions as a renewable energy source. Dunkirk Bioelectric, a new start-up company housed within the SUNY Fredonia Business Technology Incubator, is looking to do just that- utilize local food waste to produce electricity as a clean, 'green' renewable energy source. We are conducting a food waste assessment of two of the three campus dining halls in order to quantify campus food waste production and assess the potential of our campus as a food waste source for Dunkirk Bioelectric. For this project, food waste was collected, weighed, and sorted. Results of this food waste assessment will be presented and the implications discussed.

Environmental Policy in Practice: Single Use Bag Levy

Eric Fawcett, Amanda Bussom, Chemistry

Mentor: Dr. Sherri Mason, Chemistry

Single use disposable bags are becoming a serious environmental problem. The U.S. alone uses over 100 billion plastic bags a year and less than 5% are recycled. Many of these bags end up as litter where rain and wind carry them into our waterways, which eventually flow into our oceans. Within each square mile of ocean, there is an estimated 46,000 pieces of plastic. Oceanic currents carry this debris into gyre's, such as the "North Pacific Garbage Patch". Modeled after similar ordinances from across the globe, we are working with the Village of Fredonia and the City of Dunkirk to create a 10 cent levy on every single use bag handed out at retail locations. The hopes of this ordinance are to decrease the number of single use bags and increase the use of reusable bags.

Faux Orgasms - Faux Empowerment?: Women's Experiences with Faking Orgasm

Amy Fisk, Psychology

Mentor: Dr. Ingrid Johnston-Robledo, Psychology

Very few researchers have studied the common phenomenon of faking orgasm among women. The purpose of this exploratory study was to learn more about women's experiences with and reasons for faking orgasm. Out of 186 undergraduate women in the study, 94 (53%) women reported having faked an orgasm and 71 of those women answered open-ended questions about their experiences. Qualitative data from these women are current being analyzed using thematic content analysis. Preliminary results suggest that two primary reasons why women faked orgasm was to please their partners and out of concern for their partners' sexual adequacy. Many women also reported faking orgasms to end unsatisfying sexual encounters. It is quite possible that faking orgasm is a source of sexual empowerment for women but at what cost? Clearly, more research on this neglected topic is warranted. Implications for research, theory and women's sexual agency will be considered.

The Influence of Causal Explanations on Mental Illness Stigma

Kennan Foulke, Psychology

Mentor: Dr. Guy Boysen, Psychology

Mental illness stigma is a problem in society because it causes people with mental illness to receive different treatment than people who do not have mental illness. This study attempted to learn how students perceive mental illness and what causes it. Participants reported how influential they thought biology, psychology, and the environment were in causing mental illness. They then read a short explanation of Antisocial Personality Disorder and Dysthymic Disorder and the possible cause of the disorder and rated their feelings about a person with that disorder. Results showed that learning about an environmental cause of a disorder resulted in the highest feelings of pity but that there were dramatic differences in stigma between the two disorders.

Shakespeare's Thersites

Heidi Frame, English

Dr. Theodore Steinberg, English

Thersites is the witty, yet vulgar, fool of Shakespeare's problematic play Troilus and Cressida. In this dramatic masterpiece, Thersites can be found lurking behind a rock spying on lecherous people, spitting insults at men physically superior to himself, or entertaining Achilles with his wit. At first glance, Thersites

is an ineffective character, used for comic relief from the death and heartbreak that other characters experience. However, Thersites is a character who evolved from works dating back to Homer's Iliad. He is a literary hodgepodge of physical traits, family history, and personality that Shakespeare adapted and used for a purpose. In my paper, "Shakespeare's Thersites," I examine the evolution of the Thersites who appears in Troilus and Cressida and argue that he plays an indispensable role: Thersites is the only character who tells the truth about war. By reading his character thus, I have shed new light on this troubling play.

Reading Workshop: An Academic Journal composed by teacher candidates for teachers and students in the modern day classroom

Louis Frankel, Leah Urtel, Sara Shinder, Jill Durland, Chris Zelna, Evan Giacomini, Ashley Laporta, English

Mentor: Dr. Kim Marie Cole, English

This presentation seeks to explore the "ins and outs" of using Reading Workshop in the Secondary classroom. The poster will display five different aspects of Reading Workshop: classroom discussion, read aloud, technology utilization, integration of pop culture, and also motivational strategies for reluctant readers. The presentation will explain a possible lesson that incorporates all aspects listed above and represented visually on the poster. Attendees will leave with a heightened understanding of different strategies and techniques that can be used in Reading Workshop while working with adolescents.

Optimization of signal processing / retrieval using maximum-weight bipartite matching algorithm

Zhuojun Fu, Computer and Information Sciences

Mentor: Dr. Reneta Barneva, Computer and Information Sciences

As the complexity of information nowadays, the speed and ability of information retrieval processing need to be improved. A fundamental problem in computer information processing is signal processing, also called signal retrieval. The principal beyond the problem is implementing the requested programs in a considerably short amount of time. To optimize the implementation of retrieving signals/ information, we take advantage of using maximum bipartite matching algorithm. Cuckoo hashing and feature matching are two major applications, which buy in maximum bipartite matching idea in their programs. Cuckoo hashing with a stash is a robust high-performance hashing scheme that can be used in many real-life applications. Feature matching in computer vision are the basic principal in 3D model acquisition. Through investigating and analyzing these two applications, the significance of this basic algorithm will be addressed.

Testing for IRES Translation of the gurken RNA

Jessica Gabriel, Biology

Mentor: Dr. Scott Ferguson, Biology

Gurken is an important protein for directing the formation of the dorsal/ventral axis in *Drosophila melanogaster* eggs during oogenesis. As this protein is so important, its translation, the conversion of mRNA to protein, is kept under tight control as well as its localization within the egg chamber. The translation of gurken is sensitive to nutritional availability. In flies, as in humans, feeding stimulates the insulin signaling pathway. When insulin levels are high, gurken is translated using a common mechanism that relies on recognition of the end of the RNA. When nutrients are unavailable, this "cap-dependent" mechanism is blocked. Recently we found that gurken can still be translated under these conditions. By creating various transgene constructs based on the gurken gene, it will be determined if gurken mRNA is competent to undergo internal ribosomal entry site (IRES) translation under conditions of nutrient limitation.

The effects of dangerousness and causal explanations on stigma toward schizophrenia

Justine Gabreski, Psychology

Mentor: Dr. Guy Boysen, Psychology

People with mental illness often suffer from a negative public stigma. This study explored how information about cause and severity affected individual's perceptions of mental illness. Participants reported their attitudes about causes of mental illness at the beginning and end of a survey. In the survey, participants read descriptions of two individuals with schizophrenia (nonviolent or violent) and completed stigma measures. Next, participants read biological, psychological, or combined explanations for the illness and

completed the measures again. The analyses will examine for differences in stigma between the explanations and for possible interactions between the explanation of the illness and violence level. Results will help increase knowledge and understanding of how to reduce negative mental illness stigma.

Network Routing Solutions using Dijkstra's Algorithm

Allison Gehring, Computer and Information Sciences

Mentor: Dr. Reneta Barneva, Computer and Information Sciences

Dijkstra's Algorithm is known as the single source shortest path problem. It computes length of the shortest path from the source to each of the remaining vertices in the graph. Before finding out solutions to the shortest path problem, one must know what a directed/weighted graph. This presentation will cover what is a directed graph, the algorithm on finding the shortest path and applications that use this algorithm, specifically networking problems.

Mathematics Lessons with Potential from Mathematics Teachers with Potential

Ryan Gerwitz, Caitlin Greiner, Mimi Gulick, Michelle Hempel, Jessica Kennis, Courtney Kingston, Rebecca Mullen, Brian Quinn, Kelsie Rayburn, Alyssa Ruscio, Douglas Schwartz, Kendelle Sutton, Jenna Tatu, Zachary Teetsel, Michelle Terranova, Carrie Wojtaszczyk, Mathematical Sciences

Mentors: Dr. Teodora Cox and Dr. Keary Howard, Mathematical Sciences

From fractions to calculus and plenty in between plan to view highlights of award-winning lesson plans in middle and secondary mathematics classrooms. Creativity and innovation are featured in these lessons presented by senior Fredonia student teachers. The lesson plans were selected for presentation at the Association of Mathematics Teachers of New York State (AMTNYS) state-wide conference in Saratoga Springs, NY.

WIC Program

Sarah Gilbert, Public Health

Mentor: Dr. Linda Dorsten, Sociology

The WIC Program (women, infants, children) is a program that gives nutritional support to pregnant women and children. They offer different types of food that have some type of nutritional value to try and keep the mother and child healthy. For the program I made up a reference list for WIC participants with different services such as emergency contacts, shelters, pediatrics, and other child/adult facilities. Psychology can be linked to these types of services. By having these programs it helps reassure the mothers they can lead a healthy life, which will help to reduce stress. When assistance is given people lead a healthier life mentally and physically. Pregnancy is a stressful experience and by having this facility to go to they know there is someone there that can help her stay healthy.

Book Trailers: Connecting Audio and Visual Literacies with Writing Technology

Abigail Gray, Natalie Weber, Language, Learning, Leadership

Mentor: Dr. Cindy Bird, Language, Learning, Leadership

Presentation builds on the popularity of book trailers by examining the multiple literacies of audio literacy and visual literacy, and demonstrating how the components of each literacy can be both read and written within a book trailer for educational purposes. Objectives are that participants will be able to identify the multiple literacy components combined in a book trailer, understand the creative choices for selecting and combining those components, and recognize purposes for using book trailers in a classroom. Content is presented through videos and oral explanations. Highlights are viewing teacher-made book trailers and asking questions to those teachers. Organization is an introduction to book trailers, a showing of the two trailers, an explanation of their educational use, and a walk-through of the presenters' creative purpose-driven choices. Audience participation includes a Q&A time and receiving a handout that reviews some websites offering directions on writing book trailers.

Perceptions of Liking (as moderated by proxemic choice, gaze, and gender of a target)

Leanna Greenberg, Psychology

Mentor: Dr. Jack Croxton, Psychology

How close we are to someone is good indication of how much we like that person, but what about when we don't have the choice of where to position ourselves? This study examined the effects of proxemic

choice, gaze, and gender of the target on participants' perceptions of liking, interpersonal closeness, familiarity, length and nature of relationship, and other related factors. Images of a target pair in a crowded vs no-crowd condition with gazing behavior (neither, male only, female only, both) were presented to participants. This study has also been carried out in St. Petersburg, Russia to test a cross-cultural component. It is predicted that reduction of proxemic choice will lessen the impact of gazing behavior on the dependent measures and that the gender of the person doing the gazing will influence subjects' perceptions. Culture may mediate reactions to the manipulated variables. Results and commentary will be provided at the conference.

Spectroscopy of High Angular Momentum Rydberg States of the Hydrogen Molecule

Jarod Grosso, Physics

Mentor: Dr. Erica Snow, Physics

The hydrogen molecule is the simplest molecule, however, the experimental data for this system is quite limited. The following presentation gives a detailed overview of the experimental process used to obtain measurements of the energy levels of highly excited hydrogen molecules. These highly excited, or Rydberg, molecules are very similar in structure to the hydrogen atom, which we know thoroughly through calculation and experiment. The differences in energy levels between the hydrogen Rydberg molecules and the hydrogen atom lead us to fundamental properties of the hydrogen molecular ion. So the energy levels must be precisely measured and this can be done using Resonant Excitation Stark Ionization Spectroscopy (RESIS) or the newly modified version discussed here.

EEG Signals Compression

Arda Gumusalan, Computer and Information Sciences

Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

In this work, we investigate lossless compression of EEG (ELECTROENCEPHALOGRAPHY) signals which is a graphical recording of electrical activity of the brain. The near-lossless or lossy compression techniques gives better compression rates compared to lossless techniques. However, due to legal concerns and better diagnosing results, near-lossless or lossy techniques are usually not employed. Analyzing EEG signals and diagnosing the problem is a long term process, as a result, storing the data for long terms takes too much space. The nature of the EEG signals are non-stationary which means there aren't much frequently reoccurrence of certain data patterns in the time series. Hence, we consider using techniques based on predictive approaches such as ARMA model. With this model; we predict the future values of the signal and transmit them, after compressing prediction errors with an arithmetic coder.

Assessment of Narrative Development in Pre-School Spanish-Speaking Children: A Developmental Approach Using the Index of Narrative Complexity

Krista Hammer, Communication Disorders and Sciences

Mentor: Dr. Anny Castilla, Communication Disorders and Sciences

§ Narrative assessment has been traditionally used to evaluate child language skills in preschool and school age populations. § The use of narratives as an assessment of productive language skills is highly encouraged because of their high ecological validity and their association with academic skills (Hughes, McGillivray & Schmidek, 1997) § Additionally, the production of narratives is a task with high language demands allowing to assess specific productive language skills such as vocabulary, language complexity and story grammar (Klecan-Aker & Hedrick, 1985; Paul & Smith, 1993; Scott, 1988) § The Index of Narrative Complexity is a reliable tool to evaluate story grammar and sensitive to changes after intervention (Petersen, Gillam & Gillam, 2008)

Questions that were answered:

Is the Index of Narrative Complexity (INC) sensitive to developmental changes in preschool Spanish-speaking children?

How can we characterize the development of story grammar in typically developing Spanish-speaking children?

Preparation of Polymer Foam That Contains Membrane Protein

Ashleigh Hanner, Biology

Mentor: Dr. Wayne Yunghans, Biology

We prepared plasma membranes from bovine kidney by differential and sucrose gradient centrifugation. Membrane material collected at the 53.4 % sucrose layer based on 5'nucleotidase and succinate-INT-reductase marker enzyme activity. We mixed detergent, Sarcosine, extracted membrane protein or bovine serum albumin with precursors for polymer foam production and allowed foam to polymerize. Samples showed, by light microscope, foam bubble layers to have morphology consistent with proteins being incorporated into the polymer. We expect that such foam layers may be useful for water filtration techniques.

After School Programs Reduce Students and Schools From Failing

Debra Zibreg Hargis, Curriculum and Instruction

Mentor: Dr. Laura Geraci, Curriculum and Instruction

After School programs provide children and teenagers with caring and committed adults to help them become successful in school, thus reducing school failure and school dropout rates. The afterschool program proposal presents ideas for engaging teaching, learning skills, and opportunities for students to succeed in today's society. The "EAGLES" program will provide students with engineering and vocational skills, athletic opportunities, a group homework club, leadership skills, environmental opportunities, and science & nature programming. Engineering and vocational skills is a "hands on" workshop that engages the students in various activities such as: Canoe building, K-nex, engineering activities, and the Auto-CAD program for architectural planning. Athletic opportunities will provide students the ability to participate in group sport competitions and martial arts. Group homework club will provide students with a quiet atmosphere to do their homework, ability to access computers for academic research, and tutoring support for students needing assistance. Leadership skills will provide students with an opportunity to develop their self confidence, increase their self-esteem, develop personal goals, and expand necessary skills to navigate life as a young adult. Environmental opportunities will allow participation in our community's mission to "GO GREEN." Planned projects include ornamental greenhouse gardening and landscaping. Science and nature opportunities will allow the students to participate in a creative scientific environment. The activities may include nature walks, wildlife identification, and astronomy events.

SIFE

Chris Hellberg, ReneeLynn Maier, Kevin Marciniak, Stephany Zambito, Business Administration

Mentor: Dr. Donald Barnes, Business Administration

We are representing SUNY Fredonia's SIFE team. Our project, Marketing Yourself, is dedicated towards the local youth and the currently unemployed adults in the local community. Our goal with this project is to make the local community more aware of what skills that are needed to successfully create a résumé, learn the importance of networking, and last but not least the importance of interview skills.

National Poetry Month: Celebrating Original Poetry On and Off the Page

James Hill, Lacey Daley, Casey Falco, Shane Hemmer, Saffi Rigberg, Carly Salzburg, Tiffany Wood, English

Mentor: Ms. Aimee Nezhukumatathil

The poets of ENGL 460: Advanced Poetry Writing will display their original poetry collections (chapbooks) and re-imaginings of poems onto two- and three- dimensional artworks.

My Daddy is a Logic Geek

Alice Hodge, Philosophy

Mentor: Dr. Neil Feit, Philosophy

A short story about a young boy who must convince his father there is a goblin under his bed. His father insists upon a sound and valid argument for the existence of goblins before he will look under the bed. Symbolic logic is utilized in demonstrating the argument.

Mothers' Support for Preschoolers' Development of Autobiographical Memory

Ashley Holmes, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

The current study focused on maternal verbal behaviors that are likely to support preschoolers' development of autobiographical memory. These maternal behaviors were studied in regards to child age and gender. Study participants were 32 mother-child dyads from Western New York. Fifty percent of the children were 5-year-olds and fifty percent were 3-year-olds. Within each age group, one-half of the children were male. Each mother-child dyad was asked to "tell three stories about something that happened to [them] both recently," with the researcher as the audience. The narratives were transcribed verbatim. They were coded for two adult categories, Information Prompt (IP) and Yes/No Question (YN). Data from both mothers and children were also coded for references to memory. Statistical analyses (ANOVAs) found that mothers provided more IP to 3-year-olds than 5-year-olds. It was also found that 5-year-olds made more references to memory than 3-year-olds.

Tools that globalization provides to fight or promote an internal war: A study of a troubled Mexico in the globalized world

Lorena Holguin, Political Science

Mentor: Dr. Ivani Vassoler-Froelich, Political Science

Globalization has provided many countries for a chance to expand their economy exploit their natural resources and create a cheap force labor with little human rights. This has been one of the downsides of globalizations. However globalization also allows the creation of networks for cooperation. As countries open their borders and large corporations gain more power governments struggle to maintain their power against large markets. Mexico is currently involved in a precarious drug war and the government's thinning legitimacy put the country under the risk of becoming a failed state. Mexico has seen how the different dimensions of globalization allow the spread of fear, drugs and weapon furthering fueling the war. This paper will attempt to show how globalization's effects undermine the well being of individuals in the state of Mexico. This presentation will focus also on the state's government reaction to the war and the people's reaction to country's situation, and see whether the country is using the tools that globalization provides to try to solve it internal problems or not.

Design Inspires (My Election)

Nicole Hutton, Visual Arts and New Media

Mentor: Dr. Jason Dilworth, Visual Arts and New Media

Design Inspires (My Election) was created by the Graphic Design V class at SUNY Fredonia as a means to communicate the importance of voting and to create campus and community wide awareness about the 2010 New York state elections. We have intended for this political movement to grow, expand, develop and last for years to come. Throughout the Fall of 2010, our class placed posters around the SUNY Fredonia campus, ending with an exhibition in the library. Exhibiting di(ME) was a way to bring social and political issues to the forefront through use of influential design. Each poster speaks strongly of the fact that students, faculty and community members need to vote in the 2010 NYS elections or at least for them to become aware when elections are taking place.

The Importance of Public Health Services to the Community

Kara Jeziorski, Sociology

Mentor: Dr. Linda Dorsten, Sociology

There are many public health services that are available to citizens within the community. One particular service provided by the Chautauqua County Health Department is colorectal cancer screenings. This program encourages individuals over the age of 50 to be screened for colorectal cancer, which can be treated if detected early. This program will also provide treatment if a participant tests positive for cancer. My internship experience involved calling individuals and reminding them of the importance of getting screened. I also helped distribute materials to businesses along Main Street in Westfield to promote colorectal awareness month. This program is important since cancer touches everyone in some way throughout their lifetime. Cancer can also greatly impact the functioning of a patient. Cancer can greatly diminish one's quality of life and dramatically alter one's future. I will also intern at the County Home in Dunkirk to complete the requirements of this internship.

Grapes and Wines

Heidi Johnson, History

Mentor: Dr. Eric Meringer, History

The oral history group for the Community History class will present a project that shows the relationship between the grape industry and the wine industry. We will be researching and showing where the winery owners buy the grapes or whether they grow their own, what kind of grapes make which wines, and how the business relationship between the two has changed over the years in Chautauqua County.

Preschool children use more words to tell a story to a dog than a human

Leah Kerns, Leanna Greenberg, Psychology

Mentor: Dr. Nancy Gee, Psychology

Previous research has shown that the presence of a dog has a stress reducing impact on blood pressure, and heart rate. Anecdotal evidence and observational or correlational studies indicate that children seem more comfortable in talking to a dog compared to a human. The current study examined the degree to which a preschool child was willing to page through a picture book and make up a story about the pictures in the book and then tell that story to a human or a dog listener. The participants were 9 children ranging in ages from 2-4. Four similar picture books were selected and randomly assigned to each listener such that each child was measured twice in both the dog and human conditions for a total of four data points per child. The results showed that the children produced significantly more words in the presence of the dog than the human.

Sigma Kappa Philanthropies

Amanda Kellner, Communication

Mentor: Dr. Laura Johnson, Communication

Sigma Kappa will be presenting all of our philanthropies and community service projects. We will have a powerpoint displaying pictures of us along with information about our philanthropies and how we raise money for them.

Application of Pseudo-distance to Lossless Coding of Color-mapped Images

Basar Koc, Computer and Information Sciences

Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

Recently, it has been shown that better compression gain can be obtained when Huffman coder is used after a color-mapped image is transformed with pseudo-distance metric than some well-known techniques. Unlike most of the color-mapped image compression techniques, which require two passes, the pseudo-distance compression technique requires one-pass and runs in linear time. In this work, we show that further compression gain can be achieved for color-mapped images when a structured arithmetic coder is used along with the pseudo-distance metric.

Multiple Components in the Process of Utilizing Green Algae as a Source for Biofuels

Stephen Kolenda, Biology

Mentor: Dr. Fred Harrington, Biology

Four species of green algae were studied in relation to advancing the use of biomass for biofuels. Three issues addressed were: 1) bacterial contamination of algae cultures, 2) regulation of the enzyme acetyl CoA carboxylase in the pathway to algae oil production, and 3) the cell wall structure and breaking open cells for extraction of oils. We isolated several bacteria that appear to be able to grow in the algae media only if algal cells or components were present. Acetyl CoA carboxylase is a multi-subunit that regulates the initial step in lipid synthesis. These lipids can then be converted into biodiesel. We designed primers to measure enzyme mRNA and utilized affinity chromatography to purify the enzyme. Finally, we found that a mechanical method in the presence of detergents is an effective way to break cells open to extract the lipids. By researching the biology of algae, we hope to identify strategies to facilitate advancements in scale and efficiency of biofuel production from biomass.

Italian

Gina Lanfranchi, Modern Languages

Mentor: Chiara DeSanti, Modern Languages

I plan showing a student compiled video regarding why students should take Italian at SUNY Fredonia.

A Study of the Effects of Age on Division Related Problem Solving Strategies

Megan Larson, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research explored the various problem solving strategies used by secondary and college students when answering division related problems. It is hypothesized that students of different ages and levels of cognitive development employ diverse problem solving strategies when presented with division related problems. As students mature academically, their ability to draw connections among various representations, such as concrete modeling, spoken or written language, symbolic writing, or static-pictures, is constantly changing. Students generally answer division problems in one of two ways; using either repeated subtraction or the partitioning method. It is the relationships that students create among the above mentioned representations that vary according to age and developmental stage.

Public Health and Biology: Working together to improve Oral Health in Schools
Victoria Long, Public Health
Mentor: Dr. Linda Dorsten, Sociology

While working with the Chautauqua County Health Department, I collaborated with my supervisor to develop a plan to implement a fluoride mouthwash program within the schools of Chautauqua County. I compiled research on already implemented school mouthwash programs, and worked towards a specific plan for Chautauqua County. My internship has allowed me to better understand the connection between community, Public Health, and Biology. These connections show how Biology (my major) is very much a part of the Public Health field. I choose to do this internship to learn how public health services connect with the community and contribute to healthy living. Through this experience I have learned how biology and public health can work together to come up with solutions to health issues. Biologists may discover health issues and develop solutions to these problems, while public health can get these solutions out to the community and prevent further health issues.

The effect of subliminal priming on memory
Michelle Lorenzetti, Psychology
Mentor: Dr. Guy Boysen, Psychology

Priming is the heightened awareness to a specific stimulus through previous experience. Previous studies have shown that subliminal priming can influence attitudes and behaviors. Previous research has also shown that memories are reconstructive and can be manipulated. The purpose of the current research was to determine if subliminal priming can affect memory. In the first study participants recalled the reasons behind their most recent clothing purchases after subliminal priming with words related to either "saving" or "looks." In a second study participants recalled their feelings before starting high school after subliminal priming with words related to either "nervous" or "excited." Participants' memories were consistent with the subliminal prime in both studies. This research supports the hypothesis that memory can be manipulated through subliminal priming.

A Study of the Effects of Learning the FOIL Method on Students' Ability to Perform Polynomial Multiplication
Daniel Maloney, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research examined the effects of learning the FOIL method to multiply two binomials on students' ability to perform polynomial multiplication. It is hypothesized that college students who initially learned the FOIL method to find the product of two binomials have not conceptualized the general idea of polynomial multiplication, and hence they experience difficulties in finding products involving trinomials. The data collected for this research study included a 15-minute, ten-question quiz prior to teaching the lesson on polynomial multiplication, to assess students' knowledge of polynomial multiplication. In addition, a five-question survey was administered to determine what FOIL means to the students and their previous experience with polynomial multiplication.

Standard & Poor's Market Insight
Kevin Marciniak, Sam Tootle, Business Administration
Mentor: Dr. David Yi, Business Administration

We will discuss the following concepts. Discussion of how a stock's beta can be predicted from past results along with how alphas are not predictable. Discussion of why a stock would be classified as defensive or aggressive. Discussion about how certain assets in certain industries can have expected characteristics.

Family Mealtimes as Social Practice

Christina Marsh, Social Work

Mentor: Dr. Brian Masciadrelli, Social Work

The purpose of this research is to explore components of family mealtime rituals in relation to family well-being so that evidence based workshops and educational opportunities may be produced and utilized in the context of family life education.

Flow Volume Measurement in Normal Adults Utilizing a Paradoxical Vocal Fold Dysfunction Treatment Protocol

Kazlin Mason, Communication Disorders and Sciences

Mentor: Dr. Bridget Russell, Communication Disorders and Sciences

In the review of literature for my research, several treatments were discussed for Paradoxical Vocal Fold Disorder (PVFD). Those relating to the treatment procedures include patient education, mastery of techniques learned in therapy during asymptomatic periods, deep nasal sniff, relaxation for oropharyngeal muscles, focus on exhalation, diaphragmatic breathing, cessation of effortful breathing, pursed lip expiration, nasal inspiration with exhalation on /s/, stimulus control – hydration therapy, and GERD protocol when necessary. However, there was minimal research completed relative to the efficacy of the treatments proposed, outside of clinical experience and subject report. The purpose of this study is to determine if protocol for treating PVFD patients using flow-volume loop measurements demonstrate any change in normal adults. Normal adults were used as a control group to determine whether pulmonary responses change when using treatment typically applied to PVFD patients. I would like to present a poster to illustrate results of the study.

Political Cultural and Social Change

Ashley May, History

Mentor: Dr. Peter McCord, History

What is the catalyst for social change in the 1960s? Where do we see agency for social change in the 1960s?

Family Planning for the Future

Rachel McMahon, Bethany Jones, Sociology

Mentor: Dr. Linda Dorsten, Sociology

The Chautauqua County Health Department (CCHD) works in many areas of Public Health. We interned with the Family Planning Program under Melissa Lyon. Our responsibility was to develop a distribution list and to distribute posters promoting and raising awareness for the Family Planning Program. The posters were distributed throughout the campus and community of Fredonia. By doing this we helped to promote the well-being of community members by keeping them informed. Through this we provided a list from which the department may build on, regarding locations to distribute advertisements and other sources of information. Psychology relates to this project because being informed contributes to educated decisions which may help circumvent the experience of psychological distress through proper preparation. Social workers that work in the field of Family Planning do so through educational programs based on the understanding of public health environmental factors.

Social Marketing in Public Health

Paul Mercado, Sociology

Mentor: Dr. Linda Dorsten, Sociology

Public Health agencies cannot help people if the target populations are not aware of their services. Just like any other business, public health agencies need to promote and market themselves. Often times, media specialists and consultants are enlisted to give the agency a non-biased 3rd party view. During the course of my internship, I helped develop different aspects of the Chautauqua County Health

Department's website. Examples include: pictures for different pages, separate boys and girls sections on the "teens" page, sex myths, and links to social networks like facebook, cell phones, email, and youtube. The internship relates to my major (SW) and minor (public health) because it deals with the social aspects of PH. From a SW perspective, this internship is about reaching out and advocating. From a PH perspective, it is about education.

Conversations with Ghosts

Andrew McGirr, English

Mentor: Dr. David Kaplin, English

Many still regard fictitious characters with a familiarity as if they were real personalities. The phenomenological view of reading discussed by Georges Poulet helps to restore attention to the spiritual connections present in those character conceptions by examining intimate psychological relationships between reader and text. In this essay, I utilize thinkers like Georges Poulet to illuminate examples of people of our time who share similar views of specific man-made characters: gods of the Norse pantheon. Examining a metal song which retells "Odin's Rune Verses," A Neopagan religion called Ásatrú, and the Marvel comic Thor, I not only prove the existence of Odin and Thor, but show why they still deserve a place in our lives. Each example displays different but related understandings of the spiritual relationship between reader and text, and through those understandings, each group of people has decided to move into the new millennium with a sense of meaning that they carry from old, intangible forces.

Chautauqua County Grape Industry

Jacob Michaels, William Wynkoop, Michael Hallman, Erik Bentley, History

Mentor: Dr. Eric Meringer, History

My group's presentation will focus on the local grape-growing industry, in particular the winery aspect (mainly, the Johnson Estate Winery in Westfield). This presentation will be the culmination of the research we have done. The poster will focus on why this region is so conducive to growing grapes, which kinds of grapes are grown, and how the local economy has relied, and still does, on the grape/wine industries. Not many places in America have such a rich and vibrant local industry as this as far as grapes/wines are concerned. Our presentation will encourage people from the area to support the local economy by giving them a taste (not literally) of what it has to offer (think the county's "Shoptauqua" program). The documented history of the Johnson Estate, the history of their grape-growing practices, and product history (including current goods they provide) they have/do offer(ed) will all be points focused upon.

Knowledge and Awareness of the Vocal Mechanism and Care among University Voice Majors

Allison Miller, Communication Disorders and Sciences

Mentor: Paul Blanchet, Communication Disorders and Sciences

Dijkstra's Algorithm is known as the single source shortest path problem. It computes length of the shortest path from the source to each of the remaining vertices in the graph. Before finding out solutions to the shortest path problem, one must know what a directed/weighted graph. This presentation will cover what is a directed graph, the algorithm on finding the shortest path and applications that use this algorithm, specifically networking problems.

Are mandatory arrest laws (for domestic violence) effective?

Alexandria Moss, Political Science

Mentor: Dr. Jonathan Chausovsky, Political Science

I am a senior political science student who is researching the effectiveness of mandatory arrest laws for domestic violence cases. Mandatory arrest laws were enacted in New York in 1994 and revised in 1998. I will be comparing a number of cities or counties both in a state with the laws (New York) and a state without the laws in order to determine if the law has been an effective one in New York State. The areas I study will be demographically similar in order to control for those differences that stem from ethnicity and income. I will determine the effectiveness of the laws by looking at numbers of arrests for both men and women, restraining orders issued and convictions for domestic violence. My project will include a statistical analysis of my results as well as a 25-30 page paper and 30 minute oral presentation.

A Study to Determine Which Grade Level Will Have a Higher Accuracy Rate

Ashley Myers, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research explores memory recall of multiplication facts of student's in fifth through twelfth grade. It is hypothesized that sixth grade students will have a higher accuracy rate on multiplication facts than students in fifth grade through twelfth grade. Specifically, sixth grade students will score the highest percent on a (three-minute) timed multiplication test.

Using Lojban as an Intermediate Step in Natural Language Processing Systems

Adam Nash, Computer and Information Sciences
Mentor: Mr. Robert Olson, Computer and Information Sciences

Natural language processing is a critical feature of human-like artificial intelligence. It is also a difficult task that requires a detailed understanding of the sophisticated and ambiguous grammars that most natural languages are composed of. This project describes how the artificial language Lojban can be used as an intermediate step between natural language and first order logic in a natural language processor. Lojban has an unambiguous regular grammar, so it is easier to parse and turn into first order logic than natural language is. Furthermore, it is meant to be spoken like a natural language, so translation from a natural language to Lojban is easier than translation from natural language to first order logic. By turning the problem into two simpler sub-problems, the development of the natural language processor was successfully modularized in a way that will allow future development to advance more rapidly.

The Trident Reading and Magazine Presentation

Brittany Neddo, English
Mentor: Mr. Dustin Parsons, English

The Trident staff would like to host a reading of the contributors to this year's issue as well as have a table to put on display this year's issue. We would also like a separate table to display individual chapbooks that the students of ENGL 261 produced after completing the magazine.

A Room with a View: Best Practices in English as a Second Language Instruction

Nicole Nichter, Casey Trask, Language, Learning, and Leadership
Mentor: Dr. Anna Thibodeau, Language, Learning, and Leadership

With the rising number of refugees in Buffalo, New York and the limited resources for ESL instruction with general educators, this presentation offers a snapshot of methodologies used in a volunteer-oriented ESL curriculum that is specifically designed for refugees. Professional educators need to know how to provide ELLs with comprehensible input. The objectives for this presentation are to give participants hands-on experience with ESL instructional strategies. They will develop a mini-portfolio on technical vocabulary which serves as model for appropriate assessment of ESL learner growth. This project has taken into consideration major, significant perspectives of second language acquisition in children and adults and the impact of social contexts on immigrants.

Critiquing the Critic: A Study of Criticism on Mark Twain's Criticism

Nicholas Nicosia, English
Mentor: Dr. Emily VanDette, English

What I plan to do with this would be to theme a poster accordingly to the reception study I am working on for my English Senior Seminar course. In class, we have read the recently released Autobiography of Mark Twain, along with some other pieces written by him, which would account for the relevance of my topic. What I am doing with the reception study is looking into the known aspects of Mark Twain as a critic of literature, and then more prominently the responding criticism he received. The point would be to tie together some concurrent themes behind his criticism of others as well as the responses. With the reception study, and then the poster, I wish to present that while Mark Twain did have a strong voice in his day, he was not the only person who had an opinion.

Vietnam War

Connor O'Brien, History
Mentor: Dr. Peter McCord, History

Our presentation will be the conduct of the Vietnam War and the outcomes that such conduct led to.

Techniques to Monitor and Test for SLA Compliance in an MPLS-Diffserv Domain

Arinc Ozgun, Computer and Information Sciences

Mentor: Dr. Junaid Zubairi, Computer and Information Sciences

Developing an algorithm to monitor the bandwidth and other parameters of SLA with respect to customer and ISP vantage points.

Method of Recovery

Danielle Palbot, Stephanie Andrasek, Julie Roszak, Jenna Austin, Sport Management and Exercise Science

Mentor: Dr. Todd Backes, Sport Management and Exercise Science

In this study we are trying to figure out which method of recovery, active or passive, is more beneficial in recovering from running. For our experiment we are going to do two weeks with three consecutive days of running per week. The first day one, three of us will start with a ten minute run followed by an active recovery of a five minute jog. Heart rates will be taken. The other two people in our group will replace the active recovery with passive recovery of mild stretching. Day two will consist of and 8minute runs with passive recovery. Day three will consist of a six minute run followed by recovery of our choice. Week two is set up the same way but groups swap recovery methods. We are trying to show with our experiment that active recovery is more beneficial to performance than passive recovery.

Campus Climate

Lauren Piche, Biology

Mentor: Dr. William Brown, Biology

Campus Climate Challenge is growing a generation-wide movement to stop global warming, by reducing the pollution from our communities and colleges down to zero, and leading our society to a clean energy future. Our mission is to create a relationship between our community, our students and our environment. One measure in which this is done is through our clean-ups. We host numerous clean-up events throughout each semester ranging from Pt. Gratiot Beach, Canadaway Creek, Dunkirk and Fredonia. Over 500lbs of waste has been collected in the Dunkirk and Fredonia communities this year. We hope that these projects serve as reminders that we all breathe the same air and drink the same water and we must protect all that we share by keeping it clean.

Strive Ministries

Kathryn Pilgrim, Leanne Albro, Maggie Ayala, Joshua Baker, Kaitlin Birkel, Christine Chamberlin, Jacob Colby, Christopher Doan, John Gabriel, Adam Glasier, Hilary Lee, Paul McFarland, Lauren Moody, Darren Norris, Lindsay Rollins, Jenna Streeter, Casey Trask, Aubrey Warner, Erin Watkins, Rob Wilson, Volunteer Services

Mentor: Ms. Joyce Smith, Volunteer Services

For the last three years, about 20 students from Strive Ministries (InterVarsity Christian Fellowship) have returned a week early in January to spend four days serving in the local Fredonia/Dunkirk Community. This year over 300 service hours were earned at locations including Rural Ministries, St. Columbians, the WCA Home, Boys and Girls Club, Dunkirk-Fredonia Meals on Wheels, and the Dunkirk Historical Museum in addition to local churches and schools. The students gave up their comfortable beds to move into the Fredonia First United Methodist Church where they cooked all meals or had them provided through donations. The goal of this trip is to provide Strive Ministries with a chance to serve God by serving the community around Fredonia and each other. This year the group became incredibly close through the variety of jobs they completed.

Lead Prevention Poisoning

Amanda Potkovich, Jessica Helper, Sociology

Mentor: Dr. Linda Dorsten, Sociology

Chautauqua County Primary Prevention Grant focuses on lead prevention within homes in the city of Jamestown, NY. Chautauqua County has specialists come into homes and test for lead within the walls,

windows and doors. Residences can sign up for testing if they have a child under six year old in their home for at least six hours per week. If lead is found, the owners are given education and up to \$300 and a defined amount of time to fix the problems. After, Chautauqua County specialists will re-inspect the home. There are a wide range of jobs and opportunities within the public health field, however, we focused our internship on the lead prevention program. This program infuses with our majors of biology and psychology as well as our minor of public health. The lead prevention program infuses with the the field of biology and psychology. The assessment is taken within ones environment. If you keep your environment clean and tidy you are less likely to become poisoned by led. Also, lead poisoning effects both your physical and mental health.

Mystery Motivators Reduce Poor Math Performance And Oppositional Behaviors in Fifth Grader

Nirasha Premaratne, Curriculum and Instruction

Mentor: Dr. Laura Geraci, Curriculum and Instruction

Active student involvement is necessary to remedy computation skill deficits in students who are under-performing in Mathematics. However, these students may find computation exercises unrewarding and frustrating, and be less likely to choose to engage in assigned computation tasks. They would also be more likely to be non-compliant regarding Mathematics-related tasks. A modified AB (baseline-intervention) design was used to evaluate the efficacy of one-on-one instruction to improve Mathematics performance in a fifth grade student with severe oppositional behavior disorder. During the intervention phase, the student had to complete given number of tasks on daily Mathematics lessons in class to earn a random reward. Giving the choice of selecting the tasks and/or reward gave the student some control over their performance. Results show educationally valid increases in academic performance, as well as, decreases in oppositional behaviors related to performing Mathematics-related tasks.

Design and Implement a web portal for medical emergency disaster situation

Hakan Pur, Computer and Information Sciences

Mentor: Dr. Junaid Zubairi, Computer and Information Sciences

This project would become a part of the disaster management & response system under development in SUNY Fredonia. Web portal would allow civic agencies to collect medical data about patients in a disaster situation.

Dehydration

Michael Raheb, Kimberly Fitzgerald, Christopher Murphy, Anne Fulkerson, Sport Management and Exercise Science

Mentor: Dr. Todd Backes, Sport Management and Exercise Science

Dehydration is a problem for athletes because of the sweat loss that occurs with exercise. Sweat loss produces a body water deficit, which in turn produces a greater then normal concentration of substances such as sodium and potassium. This condition is known as hypertonic hypovolemia. In this experiment, we will test the idea that Gatorade helps you stay more hydrated than water during a exercise. Gatorade is also said to keep core temperature lower, blood pressure down, heart rate lower. The data will be collected during a clinical exercise test on the treadmill. Through our experiment, we will record hydration levels, body temperature, blood pressure, rate of perceived exertion and heart rate (both resting and active). All data will be collected before, during, and after the exercise bout.

Effects of a Training Regiman

Ethan Richardson, Chad Rush, Leonard Smith, Judson Quimby, Sport Management and Exercise Science

Mentor: Dr. Todd Backes, Sport Management and Exercise Science

Effects of a training regimen using resistance bands while bench pressing on a one bench press max tested pre and post training.

Preschool children have faster and more accurate memory performance in the presence of a dog

Whitney Riley, Michael DeJesus, Psychology

Mentor: Dr. Nancy Gee, Psychology

This study investigated object recognition performance in preschool children, in the presence of a trained therapy dog or a human. Children were presented with pictures of objects and asked if they could help either the dog or a human confederate remember them later. At test the children were presented with the target picture, accompanied by either one or four other distracter pictures. The design was a repeated measures design such that all children were tested four times (Dog; 1 vs. 4, and Human; 1 vs. 4 distracters). Results showed that the children were faster and more accurate in the 1 versus 4 distracter condition, as expected, and, more interestingly, also in the dog versus human condition. The authors argue that the presence of the dog helps the children to restrict their attention to the demands of the task, thus improving performance.

Perceptions of Body Images Between the Same and Opposite Gender

Whitney Riley, Michelle Lorenzetti, Elizabeth Bauza, Psychology
Mentor: Dr. Jennifer Dyck, Psychology

Gender differences in perceptions of body image attractiveness, unattractiveness, and personal ideals were investigated. College students rated their own current and ideal body images, attractive body images for both genders, large unattractive body images in both genders, as well as thin unattractive body images in both genders, in relation to a body image scale adapted from Stunkard, Sorensen, and Schulsinger (1983). As predicted, perceptions of large unattractiveness ratings differed between genders. When choosing the female silhouette they believed to be too large to be attractive, males chose a significantly smaller silhouette than they did when indicating the male silhouette they believed to be too large to be attractive. Additionally, as predicted, females indicated dissatisfaction with their current body image. Males, however, showed no dissatisfaction with their current body image. Explanations attributed to these gender differences may include a variety of societal influences.

Chautauqua Says Yes to Women Voters: Western New York's Support for Women's Suffrage

Whitney Riley, Carolyn Klotzbach, Christine Henning, History
Mentor: Dr. Mary Beth Sievens, History

The struggle for suffrage was a global issue that still hit close to home. There was strong support for women to have their votes counted alongside men right here in Western New York. This quest to find a local connection to this cause was sparked by the scrapbook of a young suffragist, Marion Belle Forness. Her well-preserved memories contained some unique insight into the life of a woman during this era. Though her life was cut short, Miss Forness was not alone in this mission. Locally and nationally women (and even some men) pushed to pass laws for the votes of women. Right here in Chautauqua County, there was a well-documented battle for women to have a voice in elections. There were many pro-suffrage meetings held in the area that were meant to open the public eye and gain support for the movement.

Forms of Rebellion

Chelsea Ringen, History
Mentor: Dr. Peter McCord, History

Our group is assessing how and where do we see rebellion and culture in the history of the United States during the period of the 1960's

Trip Through Italy

Amanda Rogers, Gina Lanfranchi, Modern Languages
Mentor: Dr. Chiara DeSanti, Modern Languages

For Italian 116, our group put together a scrapbook representation of a trip through Italy. We chose two regions from the North, Middle, and South of Italy, and we then researched cities from those regions including Venice, Verona, Milan, Rome, Florence, Pisa, Pompeii, Naples, and Sicily. Along with the scrapbook, we utilized a presentation website called prezzi to create a map of Italy. The scrapbook was written in Italian, and the project was meant to put a creative spin on the important correlation between learning a language while simultaneously learning a culture.

*Analysis of Site Fidelity and Movement Patterns in Potamodromous and Lake-Resident Smallmouth Bass (*Micropterus dolomieu*) in Lake Erie*

Nicholas Sard, Will Pszonak, Biology

Mentor: Dr. Theodore Lee, Biology

In Lake Erie Smallmouth bass (*Micropterus dolomieu*) are an ecologically and economically species. They are a top littoral predator as well as the second most targeted sport fish in New York's portion of Lake Erie. Previous genetic research suggests bass that live and spawn in the lake are genetically divergent compared to bass that live in the lake but spawn in its tributaries. We hypothesized these genetic differences are the result of fidelity to different spawning sites. To test this hypothesis we used telemetry to study bass movement patterns during the spawning season. Bass in our study displayed a high degree of fidelity to their spawning location for two consecutive spawning seasons with 50 to 85 percent return frequencies at each location. Our results corroborate well with the genetic data published in previous studies and cumulatively these data suggests there are two different life histories bass display in Lake Erie.

Simulating Human Memory in Wireless Robots Using Semantic Networks

Renford Rowan, Computer and Information Sciences

Mentor: Mr. Robert Olson, Computer and Information Sciences

The possibility of strong AI has been argued about since the concept of an intelligent machine was first proposed. This research offers a foundation for a practical defense of strong AI by demonstrating a human-like memory system for use with wireless robots that is capable of representing information using a system that based on the abstract manner in which humans process and store information. The system's knowledge is contained within two semantic networks formed from dynamic graphs; one representing the system's long-term memory and one representing known information that has not yet been integrated into long-term memory. This system is capable of manipulating up to 7 items in its short-term memory, which can either be acquired from sensory input or imported from long-term memory. The size of the long-term memory structure varies dynamically.

Applications of the Simplex Algorithm in Economics

Marc Scapelitte, Computer and Information Sciences

Mentor: Dr. Reneta Barneva, Computer and Information Sciences

The presentation will explain how we can use algorithm analysis and design, specifically the Simplex Method, to optimize desired variables within an economic setting.

Effects of Poverty on Children in Atitlan, Guatemala

Emily Schultz, Political Science

Mentor: Dr. Ivani Vassoler-Froelich, Political Science

My project focuses on the causes and effects of poverty in Mayan communities in Guatemala, Central America. The pictorial project is based on a variety of photos I took during a recent trip to Guatemala; there I had the opportunity to learn and observe the daily lives of people in Atitlan, a small town in the Guatemalan countryside. I propose a poster presentation with a collection of pictures that depict the socioeconomic conditions of children and their lives in rural Guatemala.

Challenges Facing Children in Foster Care and their Caregivers

Christina Self, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

There are approximately 423,773 children in the foster care system in the United States. These placements occur for reasons such as maltreatment (physical, sexual, emotional) and/or neglect. With the large number of children in the system, many child service agencies are not equipped to perform a full developmental assessment for each individual child. Lack of comprehensive assessment frequently results in lack of effective treatment. When a child enters foster care he/she often has severe medical, psychological and behavioral challenges. Children in foster care also often have a difficult time bonding with their new caregivers for various reasons. These children frequently exhibit low prosocial skills and are unable to read and interpret others' emotions. Unfortunately, many foster parents are unprepared for dealing with these issues and do not know techniques to overcome these obstacles with the child in their care.

Effects of exhaustive exercise on mental and physical reaction time

Jordan Simone, Sport Management and Exercise Science
Mentor: Dr. Todd Backes, Sport Management and Exercise Science

We have conducted an experiment that studies the effects of exhaustive exercise on mental and physical reaction time. This experiment can be applicable in to any sport or activity that has a high endurance level. It shows the relationship between how an athlete might suffer from mental and physical restraints while continuously performing a high endurance activity. Also, it will show at what level of the exercise these restraints begin to take place.

The Corporate History of The Chautauqua/Erie Grape Belt
Amanda Sleasman, Brian Connelly, Daniel McCarthy, Kenneth Pacos, History
Mentor: Dr. Eric Meringer, History

This is a group archival research project for our history capstone class. Our group is reseaching the corporate history of the grape industry in the Chautauqua/Erie grape belt region. Our research incorporates our findings from many local archives in Chautauqua County. The grape industry has a profound impact on the economy and hertiage of this region. As a group we wanted to explore the impact of the coroporations in the grape industry here in this region. To do this we had to find out who were the corporations were, what they used the grapes for , and what were there relationships with the famers and laborers.

Presentation of Costume Design Rendering at USITT's annual Conference
Anna Slocum, Theatre and Dance
Mentor: Mr. Dixon Reynolds, Theatre and Dance

This is a poster presentation of what I presented at the annual USITT conference in Charlotte, North Carolina two weeks ago (March 9-12). The poster consists of pictures of two shows that I did the costume design for as a class project.

Communication and Public Health: Making Connections
Samantha Smith, Stephanie King, Public Health
Mentor: Dr. Linda Dorsten, Sociology

The Cancer Services Program is a part of the Chautauqua County Health Department. It provides cervical and colorectal cancer screenings for members of the community who are under insured or uninsured. Our goal as interns was to increase the return rate of FIT kits, which screen for colorectal cancer. As interns we also had the opportunity to work at a Red Cross Shelter Drill. We served as Control Team Assistants/Recorders. We have created a mind map that links our experiences as interns for the Cancer Services Program to our majors and our Public Health minor. Stephanie is a Communication Disorders and Sciences major and Samantha is a Communication Studies major. Our intern experiences have been linked to both of our majors and our Public Health minor. Through the use of our mind map, we have constructed an organized view of how all of these things, including our majors, are interconnected.

The Study of How Non-Mathematics Majors Solve Linear Programming Problems
Allison Spencer, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research explores the ways in which students who have never been formally introduced to the subject of linear programming would solve a contextual linear programming problem. The topic of linear programming is covered in many college mathematics courses for business and economics majors, and also courses in the mathematics general education curriculum for non-majors. Linear programming problems have countless applications in the real world, which is a big part of what makes them appropriate material for these courses. It is hypothesized that students in Prize-Winning Mathematics, a general education course for non-majors at SUNY Fredonia, will use multiple informal and non-algebraic strategies to solve a contextual linear programming problem.

Graphic Design Club, AIGA
Kim Steinhilber, Shannon Mann, Ashley Robinson, Briana Kelly, Graphic Design
Mentor: Dr. Megan Urban, Visual Arts and New Media

Our graphic design club, AIGA will be traveling to Chicago, IL to visit various design studios. Visiting these studios will give us a chance to talk with design professionals, understand how studios operate and gain insight into various careers that we could look into. These firms include many aspects of design such as communication, advertising, screen-printing, letterpress, and clothing design. While in Chicago, we will also use this new environment as potential inspiration for future design work and an overall bonding experience for our group members.

Isolation and identification of airborne bacteria in hospitals to determine the effectiveness of air sanitization filters

Yegor Svirid, Michael O'Hara, Biology
Mentor: Dr. Theodore Lee, Biology

Hospital-acquired infections, or nosocomial infections, afflict over 5% of patients admitted into acute-care hospitals and are responsible for roughly 20,000 deaths annually in the U.S. Controlling these infections by means of air sanitization, early diagnosis, and prompt quarantine is a top priority. Our research is in association with Haledyne, a business in the SUNY Fredonia Technology Incubator, which builds and manufactures ultraviolet light sterilization units designed to kill microorganisms. The research project will involve isolating bacteria before and after exposure to the ultraviolet light. Our work focuses on the identification of bacteria by molecular analysis of their 16S rRNA genes. Our preliminary work has been to develop the identification method on bacteria isolated on campus. Eventually the research will test the effectiveness of the sterilization units in Brooks Memorial Hospital in Dunkirk, NY.

OpenMP a Portable Solution to Parallel Programming

Zach Swanson, Computer and Information Sciences
Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

Show how OpenMP can be used in Visual Studio to make code execute in parallel. Also, the challenges in making parallel executing code.

Maximum Flow Algorithm

Zach Swanson, Computer and Information Sciences
Mentor: Dr. Reneta Barneva, Computer and Information Sciences

Describes the "maximum flow problem" and how to solve it. The problem "is to find a feasible flow through a single-source, single-sink flow network that is maximum." It is a seminal problem in Computer Science and thus would make a great presentation.

Trunk Trouble

Michelle Tartaglia, Randy Hample, Elizabeth Goretti, Theatre and Dance
Mentor: Ms. Helen Myers, Theatre and Dance

This dance presentation is taken from 4 students' performance at The American College Dance Festival on March 16 - 19, 2011 in Akron, OH. The dance is a trio for 2 live dancers dancing with an on-stage trunk which is manipulated by 2 additional students.

Division Misconceptions in the Middle School Mathematics Classroom

Sarah Taylor, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This research explores the way in which students within a middle school mathematics classroom comprehend the process of dividing. It is hypothesized that students at the middle school level who are learning division have common misconceptions on the process of computing division, specifically, when the division problems include the use of decimals, fractions and whole numbers.

Energy Efficient Link Layer Protocols for Wireless Sensor Networks

Tolga Turan, Computer and Information Sciences
Mentor: Dr. Junaid Zubairi, Computer and Information Sciences

Energy efficient protocols try to conserve power in sensor networks by scheduling sleep periods for nodes. This thesis will study and simulate some new protocols that have been presented. By studying

energy efficient link layer protocols, student usable become aware of the challenges in the sensor network applications. By simulating one or more of protocols, student would gain insight into protocol development.

Preschool Children Explain Sequencing Choices to a Dog a Human and a Stuffed Dog

Heather Tyktor, Brittany White, Psychology

Mentor: Dr. Nancy Gee, Psychology

Previous research has shown that the mere presence of a dog reduces symptoms of stress such as heart rate and blood pressure, as well as serving as a social lubricant to facilitate communication. We were interested in the degree to which the presence of a dog might impact the execution of, and verbalizations related to, a basic sequencing task. In the present study preschool children were asked to place separate sets of four pictures into their proper order and then describe those pictures verbally to one of three listeners; a registered therapy dog, a stuffed dog, and a human. A number of dependent measures were recorded from a preliminary set of nine children, including accuracy and number/type of verbalizations. Based on previous research we predict that the children will perform at a higher level on all of the dependent measures in the presence of the therapy dog.

A Review of Dissociative Identity Disorder Research: 2000-2011

Alexandria VanBergen, Eric Walsh, Psychology

Mentor: Dr. Guy Boysen, Psychology

Dissociative identity disorder (DID), also known as multiple personality disorder, has been a subject of controversy for many years. Little is known about the actual cause of DID. There has been constant conflict between the two main views on etiology: childhood trauma and iatrogenesis. The purpose of this study is to review recent literature on DID to determine its research standing. We reviewed the recent literature, including empirical and case studies between 2000 and 2011, using PsychINFO and MEDLine to determine the methods used to study DID and its current status in the literature. The results of the review suggested that DID is not currently a focus of psychopathology research and that the research offers little indication of the causes of DID.

Molecular Characterization of Microbial Species Located in Barium Rich Regions of Canadaway Creek

Jessica Wales, Biology

Mentor: Dr. Theodore Lee, Biology

A petrological analysis of sandstone located on the banks of Canadaway Creek in Fredonia, NY, revealed noticeably high barium concentrations. Physical properties of such mineral precipitates indicate that these barium concentrations could be the byproduct of microbial metabolic processes (Mars Sediment Analog? Dark Biomineralized Mn-Oxide/Hydride Cemented Sandstone of Low-T Spring Origin, J.L. Berkley et al.). The objective of this study is to perform a molecular survey of microbial species located in barium-rich regions of Canadaway Creek. Genomic DNA was isolated from biofilms obtained from barium rich regions along the creek's bank. PCR amplification of the 16S ribosomal RNA gene is currently underway. The PCR products will be characterized to identify the species present in the biofilm. Variations within the 16S ribosomal RNA gene allow for the identification of microbial species.

Transcontinental Reception of Mark Twain

Brendan Warren, English

Mentor: Dr. Emily VanDette, English

This presentation will examine the transcontinental reception of Mark Twain. The influence that Mark Twain has had upon the American public is astronomical. Therefore, I believe that a detailed exploration of Twain's reception in England will be both interesting, and insightful. I believe that the reception of Twain will highlight cultural differences between the two countries. It will serve as historical insight into both countries during Mark Twain's life time. Furthermore, it should indicate the shift in British reception over the years. Hopefully, careful analysis of past reception, and present reception will demonstrate the possible shift in reception. It may also impact how Twain as a person, author, and lecturer shaped public opinion in England about America in general. This will hopefully be accomplished through researching his lectures "Roughing It" and "The Samwich Islands". These lectures were given in both countries during the time period of 1871-1873. I believe that the debate of Transcontinental reception will be a relevant aspect of this presentation. This is intended to examine how different cultures viewed Mark Twain's

lectures. Furthermore, this essay will expose the possible shift in reception based upon time period. My personal experience of studying abroad in England in Fall 2010 has opened my eyes to globalization. I am interested in British culture and want to find out how much Twain is valued in England.

My Work in 2010

Danielle Waterman, Theatre and Dance

Mentor: Dixon Reynolds, Theatre and Dance

I will be presenting a poster I created that contains photos and renderings of some of the work I have done in the Fall of 2010.

In Situ Real-time Visualization of Protein-mRNA Interaction- Execution of a novel approach for the visualization of grk mRNA and Sqd protein interaction within a developing living Drosophila oocyte

Alicia Watson, Biology

Mentor: Dr. Scott Ferguson, Biology

Gurken protein must be translated at the dorsal anterior corner during the later stages of Drosophila oogenesis to ensure proper development of the oocyte. Sqd protein binds to grk mRNA and precludes translation until it reaches the desired location. Therefore it is important to determine where and when this interaction occurs to better understand the grk pathway in development. Localization of the Sqd-grk complex will be visualized using a novel approach, adapted from recently pioneered TriFC technology. Fluorescent Venus protein was halved, with one domain incorporated into a construct containing the MCP viral protein, which binds stem loops engineered into the grk gene, and the second containing the gene encoding Sqd. Each of these constructs will be used to create separate transgenic fly stocks. After mating, fluorescence will appear in the eggs where, and when, grk and Sqd interact due to the reconstitution of Venus upon juxtaposition of its domains.

Consumer Attitude in Print Advertisements

Allison Westphal, Psychology

Dr. Guy Boysen, Psychology

There is a belief in today's society that biases in regards to race and gender no longer exist. However, research shows that subtle bias can still be found in many aspects of today's world. In order to investigate these biases, the current research explored how consumers view different advertisements with spokespeople of a different race or gender. The product remained the same (cologne/makeup/music player) while the race or gender of the spokesperson changed (male/female, white/black/hispanic). Participants looked at the advertisement and recorded their impressions of the product which included cost, quality, how well it competes with other brands, and target audience. They also indicated how well they identified with the spokesperson and how well the typical consumer identified with the spokesperson. Differences in these responses between the advertisements served as a measure of subtle bias toward the social group represented by the spokesperson.

A research based study in the best day to assign homework and the use of different extrinsic rewards in order to get students to complete homework

Nicholas Williams, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research first examines if there was an overwhelming better day to give homework during the week to students. Secondly, it explores some different methods to help increase student homework completion percentages.

The missing link found in translation of Gurken

Lindsey Wittmeyer, Biology

Mentor: Dr. Scott Ferguson, Biology

During oogenesis in Drosophila, it is crucial that nutrients are available to support development of the eggs. If there is a lack of essential nutrients, oogenesis is arrested until food is once again available. As in humans, consuming food causes the fly to release insulin. The *Ink* gene was recently identified as a member of the insulin signaling pathway. *Ink* associates with the insulin receptor and stimulates a cascade of signaling events important for growth. In this experiment, we are assessing the function of *Ink*

in the *Drosophila* ovary. Clones (patches) of Ink mutant cells are generated by site specific recombination in the follicle cells of the ovary. We will then observe a GFP-PH fusion protein whose localization is sensitive to insulin signaling in these clones with fluorescent microscopy. We hypothesize that this reporter will demonstrate a reduction of insulin signaling in Ink mutant clones.

Animation/Illustration Production

Kim Zazzara, Morgan Burns, Fred Duchow, Afura Fareed-Muhammad, Michael Hernandez, Lindsay Holmes, Cassie Johnson, Katie McCarthy, Jason Rappold, Carlos Sanchez, Tom Storm, Mayumi Tanoue, Matt VanLieshout, Elizabeth Visco, George Wagner, Visual Arts and New Media
Mentor: Jill Johnston-Price, Visual Arts and New Media

A class of fifteen students is working together on a collaborative animation project. The class consists of both animation and illustration students. The narrative process involves line drawn and cut out animation. The story line of our projects revolves around a young boy and the choices he has to make in life. The working title of our project is "Niggles". We are trying to complete this animation in one semester. Together, we are working on character development and teamwork.

Students' Preferences to Solving Quadratic Equations

Joshua Zebracki, Mathematical Sciences
Dr. Keary Howard, Mathematical Sciences

This study explores students' methods of preference when finding solutions to quadratic equations. It is hypothesized that when solving quadratic equations, students will prefer to stick with one method of finding solutions rather than alternating approaches when given different types of quadratic equations, even when a question favors one of the approaches.

Psychology Abstract

Organizational Psychology: Retrospective Analysis Projects

Students in PSY 347, Organizational Psychology, were required to critically analyze an organization that they were previously a member of or one that they are currently affiliated with. First, they provided an overview of the organization, followed by a description of their role within the organization. Then they analyzed it, using a set of concepts from the course. Finally, they provided a set of recommendations for improving the organization. Their presentations are taking place from 2:00 to 3:30 and all begin with the title, "A Retrospective Analysis of..."