

**STUDENT RESEARCH AND
CREATIVITY EXPOSITION**

PROGRAM

MAY 2, 2013

1:00 P.M. TO 6:00 P.M.

Student Research and Creativity Exposition Committee:

Ziya Arnavut, Computer and Information 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
Gloria Hobbs, Curriculum and Academic Support
Tracy Horth, College of Arts and Sciences
David Kinkela, History
Ana Maria Klein, College of Education
Lynsay Paiko, Undergraduate Representative
Dixon Reynolds, Theatre and Dance
Jonathan Titus, Biology
Peter Tucker, Visual Arts and New Media
Ivani Vassoler-Froelich, Political Science
Jessica Wooten, Graduate Representative

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

Michael Barone, Public Relations
Patty Herkey, Publication Services
Kevin Cloos, Mark Delcamp, and Facilities Services
Kevin Kearns, Interim Provost and Vice President for Academic Affairs
Michael Lemieux and Lisa Noody, Campus Life
Andrea Wasiera and AIT Staff
Julie Sticek, College of Arts and Sciences
Shannon Schwarberg, Student Worker in the College of Arts and Sciences
Faculty Student Association

Welcome Statements

Virginia Horvath, Ph.D., President 3

Kevin Kearns, Ph.D., Interim Provost and Vice Pres.for Academic Affairs . 3

Jack Croxton, Ph.D. Director of the Office of Student Creative
Activity and Research3

Christine Givner, Ph.D., Dean College of Education 4

Russell Boisjoly, D.B.A. Dean School of Business 4

John Kijinski, Ph.D., Dean College of Arts and Sciences 5

Program

Posters and Other Presentations. 6

Computer and Other Presentations. 18

Oral Presentations. 19

Dance Performance 19

Musical/Theatrical Performances 20

Volunteer Services Presentations 20

Graduate Student Presentations20

Visual Arts and New Media Projects 81

Remarks and Keynote Speaker. 22

Abstracts. 23

“Congratulations to the students and mentors whose work is featured in the 2013 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.
President

“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.
Interim Provost and 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.

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

"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.

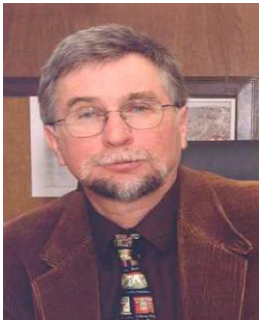
These projects, works of art, research reports, experiments, and demonstrations whether created by an individual or a team represent the "best learning outcomes" of our University. Students have the opportunity to work with each other in interdisciplinary teams; with faculty from across the University; 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, May 2, 2013
Williams Center
1:00 p.m. to 6:00 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.

POSTERS AND OTHER PRESENTATIONS

Multi-purpose Room

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

A Study of Rubik's Cube and Its Implementation

Efe Alacamli, Computer Science

Two Plates

Shauna Beckstein, Visual Arts and New Media

Developing a Marketing Strategy for Small Business in Challenging Economic Environment"

Doreen Bumpus, Business Administration

Using Entrepreneurship as an Educational Tool

Doreen Bumpus, Business Administration

The Humanities, Big Read and Literacy in the Community

Doreen Bumpus, English

Early Philadelphia

Andrea Burns, History

Survey of Biometric Recognition Systems

Namik Bak Cakmak, Computer Science

Retrospective Analysis of Royalton Summer Recreation Program

Devin Case, Psychology

Colonial Philadelphia's Working Class

Kristen Champoux, History

Retrospective Analysis of World Gym

Christina DellaNeve, Psychology

Philadelphia Campaign

Philip DiFrancisco Jr., History

The Big Read Call of the Wild

Elizabeth Drescher, Sydney Blizzard, Brittney Noble, William Lista, English

Great Lakes Plastic Pollution Assessment

Hannah Farley, Chemistry

Apprentices In Colonial Philadelphia

Zachary Fay, History

Comfortable Walking Speed

Chelsea Fisher, Katlin Hunt, Zack Kiendl, Isaiah Ryan, Exercise Science

The Effect of Symptom Presentation and Symptom Severity on Attitudes About Autism Spectrum Disorders

Justine Gabreski, Psychology

Beyond Renovations Inc.

Christopher Galayda, Anthony Reggi, Mark Mackowiak, Marisa Caruso, Business Administration

Examining Associations Between Online Video Tutoring and Academic Performance

Caroline Griffith, Psychology

Pyruvate Kinase Regulates Gurken Translation by Reduced TOR Activity in D. Melanogaster

Danielle Hindes, Biology

A Discovery of Health and Wellness Resources Offered in Chautauqua County

Anna Hourihan, Sociology/Public Health

China Project

Kimberly Hughes, Jade McGill, Alexandria Shanahan, Katherine Kosmerl, Communication

The Effects of Diet on Muscle Fiber Types in Mice

Jordan Johnson, Max DeNies, Annabelle Kim, Biology

Shortest Path Algorithms for Robotic AI

Erdinc Masat, Computer and Information Sciences

Retrospective Analysis of KFC/Taco Bell

Sean McCarthy, Psychology

Walnut Ward of Early Philadelphia

Meghan McEvoy, History

1793 Yellow Fever

Robert McGinnis, History

Epsilon Eta Chapter of Delta Phi Epsilon

Angela Montaldi, Volunteer and Community Services

The Effects of Group Dynamics and Persuasion on Student Attitude Change

Michelle Olesko, Jillian Burgess, Shaun Zmuda, Psychology

Francisco Oller & My Experience In His Homeland

Anjolie Plante, Modern Languages

Land use Management at Jamestown Audubon Society

Alan Riddle, Jeremy Eddy, Geology

Retrospective Analysis of Cancer Council NSW

Rachel Ring, Psychology

Julia de Burgos

Jane Robertson, Modern Languages and Literature

The Honors House

Jacob Schermerhorn, Amanda Buzard, History

Money and Votes in the New York State Senate

Courtney Schmidt, Political Science

Retrospective Analysis of Dick's Harbor House Restaurant

Thaddeus Smith, Psychology

Examining Associations Between Digital Calendar Use and Prospective Memory

Keith Stam, Caroline Griffith, Psychology

Retrospective Analysis of Newark Reds Varsity Football Team

Daniel Stokes, Psychology

Quantitative Analysis of Caffeine Content in Coffees sold on campus via H1 qNMR.

Alexander Summerton, Chemistry

Post-Tsunami Attitudes Toward Education Reform

Kayla Vossler, Kimberly Molfetto, Psychology

Public Health Internship

Heather Ward, Sociology/Public Health

Indoor vs. Outdoor cooking

Monika Wozniak, Sarah Johnson, Physics

Chautauqua County Farmers' Markets and Their Role in the Community

Dylan Yetter, Sociology

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

Career Opportunities in Computer and Information Sciences

Efe Alacamli, Erdinc Masat, Computer Science

Developing a Marketing Strategy for Small Business in Challenging Economic Environment"

Doreen Bumpus, Business Administration

Using Entrepreneurship as an Educational Tool

Doreen Bumpus, Business Administration

The Humanities, Big Read and Literacy in the Community

Doreen Bumpus, English

More Than a Title: Esmeralda Santiago

Rita Cain, Modern Languages

Connecting Social Work and Public Health

Chelsea Corbett, Public Health

Color Cake

Myava Cuhel, Dylan Scacchetti, Physics

Retrospective Analysis of Village of Patchogue Recreation Department

Samantha Dallas, Psychology

Chautauqua County Rural Ministry

Hannah Farley, Supervisor and Coordinator; Kody Hoth, Intern

An Investigation into the Addictiveness of Chocolate

Kimberly Fitzgerald, Katherine Marusarz, Alissa Jolley, Physics

Retrospective Analysis of Bruegger's Bagels Bakery

Jeannie Galbraith, Psychology

Operation Smile

Kristina Hodnett, Ashley Anne Tyson, Jillian Johnson, Megan Favale, Claire Berger, Communication Disorders and Sciences

Early Philadelphia

Carol Jemison, History

Puerto Rico Trip

Ashley Judd, Spanish

What is a Volcano?

Kelsey Kruse, Geology

Public Health Senior Seminar

Joscelyn Lasky, Sociology

Volunteering in the Community

Amy Lewis, Volunteer and Community Service

The Stigma Associated with Chronic Illness

Carolyn Mahany, Allysa Dupont, Olivia Merisola, Psychology

Lessons with Potential from Teachers with Potential

Wyatt Anderson, Abigail Brennan, Matthew Burnell, Elizabeth Childers, Katherine Clark, Suzanne Constantinou, Gina Falcone, Colleen Gilbert, Sierra Haney-Rolf, Tara Hudson, Alex Jo, Matthew Johnston, Kristen Joseph, Alexandra Koch, Rebecca Laks, Sara Maiorana, Ashley Melinski, David Newcomb, Renee Perreaud, Gabrielle Rodriguez, Elizabeth Schake, Angelo Sciandra, Matthew Sitzman, Collin Thompson, Shannon Tydings, Danielle Verhague, Glen Waterman, Kaitlyn Whitney, Tamra Yeager, Mathematical Sciences

Service-Learning opportunity with Dog Holiday kennel and shelter

Hannah Mulligan, English

French Immigration Politics

Hannah Orsino, Political Science

The Economics of Affordable Care Act, 2010

Chelsea Patterson, Economics

Effects of Bacterial Infection on Neochloris

Alexander Payne, Biology

Tea Experiment

Nicole Pearson, Heather Pandich, Danielle Oakes, Physics

A Manipulation of Stress and Dog Presence on Heart Rate and Working Memory

Alexis Perez, Tina Schwartzmeyer, Amy Fisk, Samantha Galloway, Marcus Stendahl, Psychology

The effect of pH-stressed carbonic anhydrase α CAH3 on triacylglycerol storage in *Chlamydomonas reinhardtii*

Ramses Rodriguez, Biology

The Mechanism of Uncompetitive Inhibition of Human Glucose-6-Phosphate Dehydrogenase by Steroids

Katrina Rojas, Alissa Jolley, Biology

Plyometric Training and Endurance Exercising

Lauren Schaefer, Ashley Keller, Katelyn Haley, Chris Wright, Exercise Science

Retrospective Analysis of Doons Bar

Samantha Shaver, Psychology

Noun Phrase Elaboration in School Aged Children's Narratives

Naomi Spallina, Communication Disorders and Sciences

The Experience of Agency: Watching vs. Doing

Keith Stam, Christopher Maier, Dale Haskins, Psychology

Applying K-means Clustering to the Social Graphs of Student Classrooms

Robert Szkutak, Computer Science

Retrospective Analysis of Blasdell Pizza

Megan Ulrich, Psychology

Close Reading and Common Core in the Classroom: Finding, Diagramming, Questioning and Analyzing Evidence in a Text

Kaleigh Vogan, Brea Erny, Language, Learning, & Leadership

Retrospective Analysis of Fredonia State Men's Soccer Team

Jeremy Voigt, Psychology

Metacognition

Raela Wiley, Shaun Zmuda, Lexi Perez, Hannah Manning, Psychology

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

Geochemical Study of Villarrica Volcano

Jason Bowers, Geosciences

Retrospective Analysis of Forney

Matthew Bowman, Psychology

Slip Works on Clay

Danielle Brooks, Visual Arts and New Media

Stale Bread is Ratchet Bread

Kevin Civileto, Cody Essek, Physics

The Wingate Test

Shaun Crisman, Andrew Christ, Kyle Kozlowski, Conner Lorenzo, Exercise Science

Evaluating Classroom Diversity Using Social Networking Analysis

Zach Daily, Computer Science

Duke Ellington

Meghan Devine, History

A project from Puerto Rico: A look into the life and musical creations of Tito Puente

Cara Doyle, Modern Languages and Literature

Engaging in our Community Series: Delta Chi

Jesse Duane, Volunteer and Community Services

Engaging in our Community: Students in Service Relay for Life of SUNY Fredonia

Jaclyn Faliero, Volunteer and Community Services

Campus Climate Challenge

Hannah Farley, English/Volunteer and Community Services

The Impact of Touching a Dog on Heart Rate in Children during the Execution of a Working Memory Task

Amy Fisk, Marcus Stendahl, Victoria Coglitore, Alexis Perez, Psychology

The Diary of Anne Frank Dramaturgy

Maggie Gilroy, Deanna Jelardi, Theatre and Dance

Visiting Assistant Professor

Emily Ginty, Biology

Retrospective Analysis of BW's BBQ

Cody Grasso, Psychology

Retrospective Analysis of Sigma Gamma Phi

Emily Griffith, Psychology

African Americans Role in the Civil War

Douglas Imperi, History

Autism Activism

Alicia Jones, English

Death Certificate Role in Epidemiology

Brittany Kaiser, Sociology/Public Health

Death Certificate Analysis

Kendall Kalfas, Sociology

Retrospective Analysis of Buffalo Sabres

Matthew Kean, Psychology

CASSI: Development of an Efficient Classroom Sorting Heuristic

John Malayny, Computer Science

Women in the Weight Room

Jessica McClean, History

Philadelphia and Yellow Fever Epidemic

Carl Monkhouse IV, History

Retrospective Analysis of Brockport Country Club

Taylor Page, Psychology

An Exploration of Ordinal Logistic Regression Models to Predict Leadership Perceptions

Leah Palmer, Mathematical Sciences

The Cakery

Chelsea Patterson, Kim Valvo, Courtney Saunders, Business Administration

Neurological and Cognitive Disabilities

Darren Pope, English

The Trident

Kelsey Radomski, English

Retrospective Analysis of Best Buy

Evan Rugel, Psychology

Theatrical Combat Workshop

Samantha Sayers, Theatre and Dance

Are You Fresh or Stale?

Kyle Scudder, Physics

Fish Gut Analysis

Morgan Smith, Nicholas Williamson, Chemistry

Intro into Gender Studies

Katy Snyder, Justin Dickerson, English

The Wonder of Twinning

Chad Szymkowiak, History

Retrospective Analysis of Greenwood Park

Amy Tillotson, Psychology

Stress Education and Gender Differences

William Webster, History

Retrospective Analysis of Enactus/SIFE Team

Will Wickett, Psychology

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

Historical Reflections on the Moral Economy Argument

Emily Baer, Alexander Di Leo, Sara Roffe, Lindsay Rynders, History

The neuroscience of free will

Zachariah Braunscheidel, Philosophy

Project Proposal for Community Garden

Jayson Castillo, History

Enactus

Danielle Chamberlain, Business Administration

Retrospective Analysis of Fredonia State Intramurals

Jim Christopher, Psychology

The Art of Sexual Education

Lee Coletti, Matthew Pisarski, History/English

Historical Reflections on the Moral Economy Argument

Alexander Di Leo, Sarah Roffe, Emily Baer, Lindsay Rynders, History

Retrospective Analysis of Rochester Redwings Baseball

Victor Fermin, Psychology

The Fisherman and his wife (stop motion)

Brittany Georgalas, Brooke Brown, Zach Herring, Animation Illustration

Retrospective Analysis of Clear Channel Communications

Kelsey Gorney, Psychology

Mind Map

Joanna Kaufmann, Public Health

Visualization of Sqd-grk Interactions in Live Drosophila Oocytes Using Tri-molecular Fluorescence Complementation (TriFC)

Nancy Levensailor, Biology

Law and Order: Colonial Philadelphia Unit

Samuel Miller, History

Freshman 15

Chris Murray, History

Student Against Destructive Decisions

Briana Noto, Ashley Bucholtz, Kayla Wojciechowski, Business Administration

Examining the Effects of Reading Format on Memory Retention

Lynsay Paiko, Keith Stam, Allysa Dupont, Psychology

Leadership Perceptions as a Function of Gender, Attractiveness, Experience, and Gender Role

Leah Palmer, Psychology

SUNY MEU

John Plevel, Maxwell Radley, Alexander Stone, Daniel Palm, Political Science

Medicalization of women's bodies and identities

Meghan Ras, History/English

Winter Wonderland Workshop

Hannah Roccisano, Theatre and Dance

Historical Reflections on the Moral Economy Argument

Sarah Roffe, Alexander Di Leo, Emily Baer, Lindsay Rynders, History

Historical Reflections on the Moral Economy Argument

Lindsay Rynders, Sarah M Roffe, Alexander Di Leo, Emily Baer, History

Retrospective Analysis of Denny's

Kyle Santamour, Psychology

Watts Riots: The Rise of Community through Music

Ashley Schosek, History

Web Interface for Education Decision Support System

Justin Soderberg, Computer Science

Child Comfort and Attachment to Dogs as Determined by Number and Duration of Touches

Jenna Steinmiller, Hannah Manning, Psychology

Monitoring Acetyl-CoA Carboxylase and Thiolase in Lipid Metabolism of Micro alga Chlamydomonas Reinhardtii for Biodiesel Production

Michelle Sudyn, Biology

High Fructose Corn Syrup: How Much Are We Really Consuming?

Dianna Wasyluk, Kim Fitzgerald, Physics

Retrospective Analysis of Buscaglia Decks

Derek West, Psychology

Comparisons and Forecasts of International Annual Labor Force Statistics

Will Wickett, Mathematical Sciences

Lake Erie Beach Survey

Nicholas Williamson, Environmental Sciences

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

Retrospective Analysis of Douglaston Manor Catering Hall

Justin Black, Psychology

Community Service

Lisa Braun, Political Science

The Skeptics of Science

Zachariah Braunscheidel, Philosophy

Molecular Characterization of a Microbial Community Associated with Manganese-Barium Rich Deposits

Nicholas Catanzaro, Michael O'Hara, Diala Ghazal, Biology

Campus Activism

Ryan Chilelli, History

Fracking Report:

Sean Clancy, English

Film on a Women's Role in Italian Mafia

Nicole Ceppaglia, Modern Languages

Gender Neutral Housing

Erik Corrie, History

Altering the Contents of our Wandering Minds

Joseph DeMaria, Psychology

Pi Day Activity

Sara DiFulvio, Jennifer Smith, Elizabeth Brion, Mathematical Sciences

Retrospective Analysis of Long Island Rough Riders

Janine Guariello, Psychology

Blues and African American Culture

Robert Hewitt, History

The Economic, Social, and Professional Impact of the Volunteer Income Tax Assistance Program

Monica Hopkins, Volunteer and Community Services

Delta Phi Epsilon: Volunteer and Community Services

Sara Kobel, English/Volunteer and Community Services

Diabetes Awareness Activism Project

Elizabeth Mothersell, History

Influential Music of the Black Power Movement

Pilar Nelson, History

Family Roles and Prospective Career Choice

Lynsay Paiko, Eric Ellison, Carmina Georgescu, Psychology

The Effect of Jazz on the Relationship between Blacks and Whites

Kira Parks, History

Retrospective Analysis of Deerfield Country Club

Gabby Pietropaolo, Psychology

Philadelphia: The Culmination of American Political Idealism

John Plevel, History

Retrospective Analysis of FSA Centre Pointe

Gina Simone, Psychology

Parenting While Stressed: How Maternal Depression, Social Support, Hostility, Age and Employment are Related to Parental Self-Efficacy Cognitions

Brittany Waller, Psychology

Running Capabilities of Ghost

Steven Whittemore, Biology

Seta Biotechnologies

Dustin Wilson, Ryan McConnell, Nicole Foote, Business Administration

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

Dialogic Reading With Children with Autism Spectrum Disorder

Stephanie Adamowicz, Psychology

Stefan Zweig: A Friend Among Friends

Rebekah Calhoun, English

Toilet Talks

Lacey Condon, Sociology/Public Health

Nativism

Josh Domalski, History

Plastic Pollution

Parker Fink, Chemistry/ Environmental Sciences

Retrospective Analysis of Buffalo Sabres

Caitlin Fuller, Psychology

Student Comfort and Equality

Kimberly Keleher, Women's & Gender Studies

Putting the Public First

Kyle Landers, Public Health

Shuffling Along

Gabrielle Leo, History

Retrospective Analysis of Mighty Taco

Emily Pease, Psychology

Tempering with Chocolates

Jennifer Pfeffer, Tiffany Place, Physics

Using Church Music to Identify Theological Differences in Antebellum America

Kiri Ramos, History

Retrospective Analysis of The Resource Center

Deseree Richter, Psychology

Motivating the Millennial: A Herzburg Study

Brian Sheehan, Clifford Ball, Kelly Franck, Business Administration

Jazz from Harlem to New Orleans

Rachel Smith, History

Retrospective Analysis of Massaro Dry Cleaners

Claire Thering, Psychology

Role of Women in American History

Brittany Toapha, History/Women's and Gender Studies

Dialogic Reading: A Statistical Analysis

Alexandra VanBergen, Math/ Statistics

Retrospective Analysis of Honeoye Falls Market Place

Megan Wells, Psychology

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

High Water Everywhere: Finding History Through Blues Lyrics And Tradition

Matt Corrigan, History

African Americans, Music, and World War I

William Dickinson, History

Ring Shout

Abigail Dry, History

Retrospective Analysis of Arriba Tortilla

Kimberly Floyd, Psychology

Poetry Off the Page

Gabriel Fontanez, Kristie Beckinghausen, Shelby Converse, Laura Distaso, Ashley Friedman, Dan Hahn, Alice Hodge, Jake Lesinski, Drew Lockwood, Peter Mason, Jesse McMahon-Eagan, Emily Metzler, Teresa Porcaro, Mark Schlewitt, Will Walawender, English
Mentor: Dr. Aimee Nezhukumatathil, English

Retrospective Analysis of Camp Stella Maris

Danny Galusha, Psychology

Opioid Dependence

Mohammed Gasmelbari, Sociology

Retrospective Analysis of Fredonia State Track and Field

Hailey Griewisch, Psychology

Retrospective Analysis of Sinners of Solitude

Steve Grzybowski, Psychology

Luiz Munoz Marin

Bradley Heferle, Language

Racial Profiling

Michael Kowal, History

Disk and System Performance with Bonnie++ and Nbench

Mark Mackey, Computer Science

B.R.E.A.K-ing Down the data

Mason Maynard, Social Work

African Americans and the Drum

Maya Mills, History

Gay Art

Erica Nelson, History/Women's and Gender Studies

African influences on Jazz and Tango dance

Antonio Regulier, History

Body weight, Nutrition, and the Search of Peak Performance

Lindsay Rynders, History

Body Activism Project -- Accessibility and Our Community

Jeffrey Schmidt, History

Crepe Brulee

Caitlin Skellett, Kristie Beckinghausen, Physics

Slave Ownership in Colonial Philadelphia

Penny Sutton, History

Parent-Child Dialogic Reading and Its Effects on At-Risk Preschoolers

Alexandra VanBergen, Alicia Welch, Psychology

Introversion in American Society

Robert Ward, History/English

Factor Like a Raptor: A Study of College Students' Understanding of Factoring

Heather Zuch, Mathematical Sciences

Opioid Dependence

Samantha Zywar, Sociology

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

3G Sensor Transmission

Daniel Coffaro, Computer Science

Connecting Psychology and the Public Health minor: An internship exploration

Alexandra VanBergen, Sociology

**Computer Presentations
Multipurpose Room**

1:00 to 1:30 p.m.

Interactive Applications of MS Excel and MS Visual Studio .NET 2010

Brandon Artymowycz, Computer and Information Sciences

Distributed BACI Race Simulation

Richard Parenti, Computer Science

1:30 to 2:00 p.m.

Developing Flight Routing Module for Distributed Flight Tracker

Richard Parenti, Jeffrey Lewandowski, Computer Science

The SUNY Fredonia Incubator: A Step in the Right Direction

Courtney Schmidt, Research Foundation

2:00 to 2:30 p.m.

Simulation of a Projectile and Random Theory of Rolling Dice

Timothy Aselin, Computer Science

The arcGIS system and the Chestnut Wharf

Tyffany Howlett, History

2:30 to 3:00 p.m.

Game Programming

Jeffrey Swift, Nicholas Freville, Patrick Hodge, Computer Science

3:30 to 4:00 p.m.

Algorithm Development to Investigate Compatibility of Three Software Systems

Ankit Ahuja, Computer Science

5:00 to 5:30 p.m.

Monitoring Users and Internet Service Providers for Fair Use

Ankit Ahuja, Computer Science

CFA Research Challenge

Ryan Edens, Jeff Holloway, Robert Young, Tiffany Place, Business Finance

Premium Liquor

Laura Hart, Alison Phillips, Physics

Yellow Fever and Other Outbreaks of Disease in Colonial Philadelphia

Jared Nelson, Alexander Jacques, History

Food For Thought

Courtney O'Donnell, Joan Welch, Women's & Gender Studies

Developing A Shell

Jim Smith, Justin Soderberg, Computer Science

5:30 to 6:00 p.m.

Processor Scheduler Simulator

Kyle Smolinski, Ankit Ahuja, Computer Science

Epidemics of Early Philadelphia
Alex Jacques, Jared Nelson, History

ORAL PRESENTATIONS

Room G103C

1:00 to 1:30 p.m.

The Ternary Contradiction of Firearm Ownership and Legislation
Joshua Baker, Economics

1:30 to 2:00 p.m.

Improving Political Discourse in America
Tyler Waterbury, Philosophy

2:00 to 2:30 p.m.

Belize Service Project & Friends Across Borders Club
Alissa Cole, Language, Learning & Leadership/Volunteer and Community Services

2:30 to 3:00 p.m.

Hydration/Fluid Replacement
Kimberly Fitzgerald, Exercise Science

3:30 to 4:00 p.m.

Art Therapy Awareness
Katherine Hertweck, Casey Perry, Visual Arts and New Media

5:00 to 5:30 p.m.

The Environment in Reggio Emilia inspired learning centers
Dawn Cross, Curriculum and Instruction

DANCE PERFORMANCE

Multi-purpose Room

3:00 p.m.

RaptuREgret

Adam Ali, Katie Straub, Shane Zimmerman, Michelle Kirisits, Theatre and Dance

To be shown on big screen TV

MUSICAL PERFORMANCE

Room S204

3:00 p.m.

Cello Performance

Giovanna Ruggiero, John Chatterton, Stephen Minor, Mary Porcaro, Music

THEATRICAL PERFORMANCE

Room S204

3:30 p.m.

Devising Theatre: Creating New Works through a Physical Approach

Daniel Astacio, Haley Beauregard, Jacob Bradley, Marisa Caruso, Rachel Fischer, Nicholas Gerwitz, Rhiannon LaCross, Mary Mazur, Nicholas Nieves, Madison Osgood, David Quinones, Jessica Sabatini, Raphael Santos, Eliza Vann, Theatre and Dance

VOLUNTEER AND COMMUNITY SERVICES PRESENTATIONS

Volunteer and Community Services

“Engaging in Our Community: Students in Service”

Volunteer and Community Services is a part of Campus Life. Its purpose is to connect students with the community and provide volunteer opportunities. Volunteering allows students to contribute to the community in a meaningful way while gaining firsthand experience, skills and knowledge in a variety of ways. A primary objective of the *Engaging in Our Community* series is to identify and build college and community partnerships, enhance cultural and economic connections, and foster civic responsibility and engagement. This endeavor recognizes accomplishments and progress attained by student volunteers and community partners while raising awareness about future opportunities and possibilities.

Students will showcase their volunteer and community service projects/experiences on posters or slideshow demonstration of pictures. Some of the students involved in Volunteer and Community Services Office are:

Campus Climate, Hannah Farley
Colleges Against Cancer, Jaclyn Faliero
Delta Chi, Jesse Duane
Delta Phi Epsilon, Sara Kobel
Friends Across Borders (FAB), Alissa Cole
VITA (Volunteer Income Tax Assistance Program, Monica Hopkins

Please see abstracts at end of the book for more details and presentation times.

GRADUATE STUDENT PRESENTATIONS

Room S204

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

Neurologic Music Therapy

Renee Bapst, Brianna Cowen, Music Therapy

Students' Skills in the Visual Estimation of Angles

Courtney Brydges, Mathematical Sciences

Flipping the Classroom: A study of the effect of a flip classroom on students' homework completion, test scores and overall grades.

Andrew Carucci, Mathematical Sciences

The Environment in Reggio Emilia inspired learning centers

Dawn Cross, Curriculum and Instruction

(Note: this is an oral presentation at 5:00 p.m.).

A Study of Undergraduate Students' Misconceptions of Radical Expressions

Kyle Erlandson, Mathematical Sciences

Reinforcing Body Norms: How Gay Men Are Represented in Pop Culture and How it Effects Body Image

Kayla Fraser, Women's & Gender Studies

Presence of a therapy dog impacts verbalizations in a storytelling task in preadolescent children

Samantha Galloway, Emily Lipski, Psychology

A Study of the Misconceptions of Metric Conversions and the Difficulties Behind Metric Unit Estimation

Jennifer Pfeffer Gilman, Mathematical Sciences

Reading Beyond the Blood: A Post-Colonial Reading of Agatha Christie's Works

Jacqueline Hebert, English

An Examination of High School and College Students' Misconceptions Regarding Solution Methods of Exponential Equations

Ashley Hewson, Mathematical Sciences

A Study of Preference on Solution Techniques used by 8th Grade Mathematics Students While Solving Systems of Equations

Shane Hood, Mathematical Sciences

A study on students' dependency on calculators when dealing with exponents in the mathematics classroom

Mabra Karpie, Mathematical Sciences

Asymmetrical Hybrid Fibers and Myosin Heavy Chain Isoforms in Mouse Soleus Muscles

Lauren Larson, Biology

Probing for IRES Function in the gurken 5' UTR

Jacob Merle, Biology

A Study in Computational Estimation

Jerica Morgan, Mathematical Sciences

Trail's End Camp Varsity Program Director Staff Manual

Kathryn Pilgrim, Curriculum and Instruction

STANYS

William Pszonak, Adam Rivera, Education

Environmental enrichment as a means of increasing male/female social interactions in a critically endangered species, Macaca nigra

Danielle Renee Smith, Biology

Relative Bat Activity as an Association with Proximity to Water

Jonathan Townsend, Biology

Response of House Crickets (*Acheta domestica*) to Bat Sonar in a Mating Scenario

Rebecca Watro, Biology

Photomorphogenic Effects of UV-B Radiation and Antioxidant Repair on *Arabidopsis thaliana* Deficient in *CUT1* Gene

Tiffany Wong, Biology

Oriental Bittersweet

Jessica McClean Wooten, Biology

REMARKS

Room S204

4:00 p.m.

Dr. Virginia Horvath, President

Dr. Kevin Kearns, Interim Provost and Vice President for Academic Affairs

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

KEYNOTE SPEAKER

Room S204

4:15 p.m.

Dr. Michele Bernatz, Professor, Visual Arts and New Media

“Fredonia Graduate to Art History Professor: A Path of Five Directions”

RECEPTION IMMEDIATELY FOLLOWING

ABSTRACTS

Dialogic Reading With Children with Autism Spectrum Disorder

Stephanie Adamowicz, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

Children with Autism Spectrum Disorder (ASD) frequently have many deficits in life, including language and social skills. Children with autism who are high-functioning or have Asperger's Disorder are able to communicate to some degree but they still have problems with their social skills. Dialogic reading or shared reading has been used successfully with many other populations of children. Dialogic reading is a dialogue between the adult and a preschooler. This type of reading could help children with ASD improve their vocabulary, improve their language skills, and teach them social skills as well. However, the dialogic reading strategies would need to be modified. Some modifications would include how the adult talks to the child, use of shorter books to read with the child, and altering the questions so they are easier to understand and do not have multiple parts to answer.

Poster presentation - 3:30 to 4:00 p.m.

Algorithm Development to Investigate Compatibility of Three Software Systems

Ankit Ahuja, Computer Science

Mentor: Dr. Gurmukh Singh, Computer Science

There is always a controversy among researchers and educators which software system would be used for their research and teaching work. Some researchers and instructors advocate that the software system employed by them is the best in the market and others are using inferior quality software. To decide this sensitive issue, we started a project in which three different Microsoft software systems are employed, which run three different computing languages such as Structured Query language (SQL), Visual Basic (VB-2010) and C# in the background, to investigate the projectile motion under the force of gravity. Therefore, we developed algorithm of the same problem in three different computing languages and could investigate the compatibility of these three software systems. The research project we will be presenting harnesses the power of three computing languages to display the dynamic motions of a projectile through 2D-space. Through the development of this algorithm, we will be exploring the different effects of gravity and drag on the object falling in Earth's atmosphere. Initially, we started with a simulation of free falling object using Microsoft Excel 2010. In this simulation, a graph was created displaying the trajectory of an object with an initial height and velocity. The object's instantaneous height and velocity were then computed in the worksheet, as well as graphically represented in a separate spreadsheet. The initial height and projectile velocity were modified using built-in sliders in MS Excel software system. To investigate the compatibility of MS Excel 2010, we will be studying the same problem using a graphical user interface created with help of C# and Microsoft Visual Studio .NET 2010. Microsoft Visual Studio .NET 2010 is an Integrated Development Environment designed to create C# programs.

Computer presentation – 3:30 to 4:00 p.m.

Monitoring Users and Internet Service Providers for Fair Use

Ankit, Ahuja, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

Traffic shaping is a common ISP service that analyzes the packets going through the service provider to determine whether the user should be throttled or free. However, based on a service level agreement between the customer and the ISP, the customer has paid for a certain bandwidth, and if the ISP throttles this bandwidth, then this is considered an unfair practice. On the other hand, the customer is not allowed an unlimited bandwidth, so this must be limited by the ISP. There is a fine balance that must be monitored, providing leeway in low traffic situations, while allowing full bandwidth usage (up to a cap) even during peak times. The SLA monitors this, and with a proper GUI, can provide answers to some common questions for both the user and the internet service provider.

My Approach

First, I will need to analyze data packets entering and leaving my computer. We can accomplish this by using Lua scripting with Wireshark. The script will analyze and separate the packets arriving and leaving the computer and organize them into classes. These classes will then be analyzed by a C# GUI. The interface will analyze the data and provide suggestions to the user with regards to any further considerations and changes of bandwidth usage. The statistical analysis will display which classes have high usage, and which have low usage.

Computer presentation – 3:30 to 4:00 p.m.

Career Opportunities in Computer and Information Sciences

Efe Alacamli, Erdinc Masat, Computer Science
Mentor: Dr. Reneta Barneva, Computer Science

We performed a study of the job opportunities in computer and information sciences area. In the framework of this study we gathered data and calculated statistical invariants about the job market, conditions of employment, necessary skills, programming languages sought, and the compensation in various subfields of Computer and Information Sciences. The results of the study will serve for career orientation as well as a recruitment tool.

Poster presentation - 1:30 to 2:00 p.m.

A Study of Rubik's Cube and Its Implementation

Efe Alacamli, Computer Science
Mentor: Dr. Ziya Arnavut, Computer Science

I performed a study on Rubik's cube and implementation of it with the Unity3D game engine and C#. The results of the study will be presented as a poster for CSIT 499.

Poster presentation - 1:00 to 1:30 p.m.

Interactive Applications of MS Excel and MS Visual Studio .NET 2010

Brandon Artymowycz , Computer and Information Sciences
Mentor: Dr. Gurmukh Singh, Computer and Information Sciences

Currently, we are in the process of creating random numbers using Windows-based MS Excel 2010 and MS Visual Basic .NET 2010 [4] application software. The generated random numbers are employed to investigate two interesting real-time statistical problems, e.g., (i) probability of getting head or tail through flipping of a single coin or a bunch of coins flipped simultaneously and (ii) to compute the probability of winning NY Lotto in a virtual lab.

Computer presentation – 1:00 to 1:30 p.m.

Simulation of a Projectile and Random Theory of Rolling Dice

Timothy Aselin, Computer Science
Mentor: Dr. Gurmukh Singh, Computer Science

In this paper the main objective was to use a computer programming language to simulate the trajectory of a projectile in a frictionless environment and the ability to produce random numbers using a random number generator for simulating the rolling of dice. In the calculation of the trajectory of an object we are calculating two ways one for the instance in the time and the other with set variables. In both circumstances they are not complete as they do account for external forces such weather variables, wind barometric pressure or air density. To start the calculations we need to use Eulers method for velocity and acceleration along both axis. Both velocity and acceleration are both rearranged and integrated with the constant of gravity where is when a programming language such as excel becomes very useful. Using Microsoft Excel we are going to calculate for Velocity at a Given Time, Height at a Given Time, Computed Height and the Horizontal range of a projectile. Each formula was entered into a cell in excel along with its variables and given references too. A parabola that was given was used to create a graph of the trajectory of the object, $y=4.9x^2-0.0163x+C$, x is the time of flight of the object and c is the y intercept or initial height of the object. Using a line graph we are able to compare two different initial heights of an object by selecting both their x and y axis values. A scroll bar was added to a third variable

height to have the ability to change the initial height of the object and record its trajectory. Horizontal range of the projectile was also simulated with a form slider control to adjust for different initial velocities of an object along its path. For the rolling of dice in Excel a random generator function ()Rand was used to simulate all values between 0 and 1. The function was multiplied by 6 to account for there being 6 sides to a die along with 1 being added since there is no side less than 1. The Rand function was graphed for the maximum value of rolling 9 dice with six sides 200 times.

Computer presentation – 2:00 to 2:30 p.m.

Historical Reflections on the Moral Economy Argument

Emily Baer, Alexander Di Leo, Sara Roffe, Lindsay Rynders, History
Mentor: Dr. Eileen Lyon, History

“Social norms and obligations, or the proper economic functions of several parties within the community” form the basis of moral economy. Outrage to moral assumptions and actual deprivation cause the direct action of the common people. Historian E.P. Thompson defined this concept to describe the English food riots where men stole grain from the middle-men, sold it at a fair price, and then returned the money collected to the middle-men. The concept itself is timeless and can be seen in uprisings and protests in a variety of cultures and countries.

Poster presentation - 2:30 to 3:00 p.m.

The Ternary Contradiction of Firearm Ownership and Legislation

Joshua Baker, Economics
Mentor: Dr. Amar Parai, Economics

The purpose of this study is to present a brief summary of the various surveys and analyses of the introduction and effects of new gun legislation, and the rationale for policy making at the federal and state level. Specifically, it will take a critical look at the increased firearm legislation in the United States and opinions of the American public. Use of statistical analysis on firearm related activities, and correlations to the perceived economic, social and political outcomes of prompt action will also be highlighted.

Oral presentation – 1:00 to 1:30 p.m.

Neurologic Music Therapy

Renee Bapst, Brianna Cowen, Music Therapy
Mentor: Dr. Joni Milgram-Luterman, Music Therapy

This poster presentation will summarize Neurologic Music Therapy (NMT): evidence-based research, techniques, populations NMT serves, and reimbursement. Co-presenter, Brianna Cowen, and I attended and complete a intensive training in the Fall of 2012 in Chicago, IL where we became certified Neurologic Music Therapists.

Graduate Student Poster Presentation – 5:00 to 6:00 p.m.

A Day at the Lake

Sara Bartz, Winner of Earth Week Art Competition

My work shows how we are trashing our planet and it is effecting animals and wildlife. What used to be a beautiful day at the lake has now been trashed. We could have prevented this simply by taking two extra steps to a garbage can but instead proved America's laziness by throwing it on the ground.

Displayed at expo throughout the day

Two Plates

Shauna Beckstein, Visual Arts and New Media
Mentor: Dr. Peter Tucker, Visual Arts and New Media

I am working on combining my interests in sustainable farming and food production with art. Through my interactions with the community surrounding the college I have had the opportunity to participate in local

food production. The most fascinating experience was with poultry processing. I will be presenting a video sculpture that contrasts industrial poultry processing with on-farm poultry processing. I believe it is important for us to understand where our food is coming from, even if that means confronting the death of living creatures. Through this project I hope to educate viewers on the differences between the two processing methods. I hope viewers walk away understanding that death is part of food production, but it isn't always cruel and inhumane.

Poster presentation – 1:00 to 1:30 p.m.

RaptuREgret

Nicholas Bernard, Hope Feldman, Adam Ali, Katie Straub, Shane Zimmerman. Michelle Kirisits, Theatre & Dance

Mentor: Ms. Helen Myers, Theatre & Dance

This proposal is to present a dance entitled "RaptuREgret" at the OSCAR Expo. The dance is an eighteen minute long duet, and features two casts of dancers.

Big screen TV showing at 3:00 p.m.

Retrospective Analysis of Douglaston Manor Catering Hall

Justin Black, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Geochemical Study of Villarrica Volcano

Jason Bowers, Geosciences

Mentor: Ms. Rebecca Leach, Geosciences

Over the course of a volcano's lifetime it can erupt several times. The magnitude of an eruption at a single volcano is dependent on multiple factors. A key factor is the chemical composition of the material being erupted. More silica rich material often produces more explosive eruptions. Villarrica Volcano in Chile is a good example of a volcano with mostly nonexplosive eruptions that has had its deposits studied by numerous geoscientists. Different studies have resulted in samples of recent volcanic activity as well as from previous episodes of growth. It could be possible, combining previously determined data with data gathered more recently, to confirm chemical changes of the Villarrica system over time. In order to determine whether it is possible to document chemistry changes different types of petrologic diagrams will be constructed. These diagrams would then be used to analyze changes in chemistry if any can be seen.

Poster presentation - 2:00 to 2:30 p.m.

Retrospective Analysis of Forney

Matthew Bowman, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Community Service

Lisa, Braun, Political Science

Mentor: Mr. Ray Rushbolt, Political Science

We will be presenting what community service we have completely throughout this semester and what we plan on participating in the future.

Poster presentation - 3:00 to 3:30 p.m.

The neuroscience of free will

Zachariah Braunscheidel, Philosophy

Mentor: Dr. Neil Feit, Philosophy

Incorporating a multitude of psychological, philosophical and neuronal publications, I seek a refreshed investigation of the so called "hard-problem" of consciousness. By viewing case studies and research, I hope to uncover an alternative definition of free will, one which would include unconscious acts of a certain variety.

Poster presentation - 2:30 to 3:00 p.m.

The Skeptics of Science

Zachariah Braunscheidel, Philosophy

Mentor: Dr. Neil Feit, Philosophy

Science is a fundamental aspect of the modern world. Without the scientific method, it is unlikely mankind would have made such breakthroughs in the past 200 years. However, there is no currently accepted method to assess the distinctions between science and pseudoscience. In my work, I propose that it is possible to differentiate between science and pseudoscience by examining the skeptical nature of the practitioners of some field. I claim that true scientists are both introspectively and externally skeptical of all claims made during research. I refer to this circumstance as being in a state of Skeptical Duality.

Poster presentation – 3:00 to 3:30 p.m.

Slip Works on Clay

Danielle Brooks, Visual Arts and New Media

Mentor: Mr. Hide Sadohara, Visual Arts and New Media

Researching a form of minerals and clay slip to create textured colors on functional ceramic forms. These slips have developed through history into something contemporary ceramicists use to obtain form and content in simple wheel thrown pieces. There are multiple colors that can be obtained with the use of different mineral types, though at SUNY Fredonia only two types are currently in use. I would like to research further into these other mineral types, to work with variations and show the ceramic and sculpture students that they can take their art further with incentive to find what isn't directly supplied by the school. Also, to display the different slip types at the Student Creativity and Research Expo I can give other students the opportunity to understand an art form not always known to those not on the ceramics track.

Presentation – 2:00 to 2:30 p.m.

Students' Skills in the Visual Estimation of Angles

Courtney Brydges, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study examines students' perceptions of angle measurement. Its underlying purpose is to take a closer look at students' level of proficiency and appropriate understanding of angle measurement and associated measurement tools. It is hypothesized that students in grade 8 will more accurately determine the degree measure of any given angle using estimation as opposed to having the assistance of a protractor. Subsequently, it is proposed that when using a protractor these students will choose the innermost angle measurement despite the size or position of the angle. The remainder of this study compares 8th grade students with college students. It is further hypothesized that students, regardless of their age, will have the most difficulty estimating acute angles within 10° of 0° and obtuse angles within 10° of 180° .

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Using Entrepreneurship as an Educational Tool

Doreen Bumpus, Business Administration

Mentor: Dr. Sue McNamara, Business Administration

My presentation to the 2013 Student Research and Creativity Exposition is "Using Entrepreneurship as an Educational Tool" and will examine the need and relevance of using the model of entrepreneurship as an educational tool to enhance the study and application of organizational behavior principles, concepts of management, knowledge of basic theories and concepts of the behavior process at various levels within the organization. I will explore an appreciation for basic organizational skills and identifying ethical implications of organizational behavior in cross-cultural business environments as well as developing the skill to implement effective solutions. I will also submit a research paper.

Poster presentation - 1:00 to 2:00 p.m.

Developing a Marketing Strategy for Small Business in Challenging Economic Environment"

Doreen Bumpus, Business Administration

Mentor: Dr. Shazad Mohammed, Business Administration

Utilizing basic marketing concepts and strategies, I will analyze the competitive environment of a small owner-operated consignment business, Stylz Unlimited, located in an economically-challenged area, specifically Dunkirk NY. Working with the owner, Pam, I will examine marketing functions such as price, promotion, product, and place in response to environmental factors such as technology and competition. Implementing simple strategies such as using bilingual (Spanish-English) signage and low-cost advertising I expect to develop a business plan that will assist my internship business to increase customer value, expand its customer base and further develop repeat business to increase its competitive edge in the private business sector. This analysis will be summarized in an executive report which will assist Stylz Unlimited to increase inventory turnover in an economically-challenged geographic area.

Poster presentation - 1:00 to 2:00 p.m.

The Humanities, Big Read and Literacy in the Community

Doreen Bumpus, English

Mentor: Dr. Christina Jarvis, English

My Spring 2013 Student Research and Creativity Exposition presentation will explore the need and relevance of the "humanities" to the local community, the effectiveness of the National Endowments of the Arts sponsored "Big Read" events, and the state of literacy within the community. I will focus on the effectiveness of the "Big Read" program in terms of reaching one of its target populations --"at-risk" children. Specifically, my poster and presentation will draw on research, data, and my experiences facilitating a book discussion on Jack London's THE CALL OF THE WILD with the Boys and Girls Club . I will include my research paper which explores the state of literacy and the relevance of the humanities to contemporary society, such as how literature and writing helps develop community engagement with contemporary issues, encouraging the growth of cultural, academic and business literacy in the young members of our society.

Poster presentation – 1:00 to 2:00 p.m.

Early Philadelphia

Andrea Burns, History

Mentor: Dr. Nancy Hagedorn, History

I will be presenting my research from my Senior Capstone. While I am currently still working on my exact thesis, my research involves the impact indentured servants had on the development of Colonial Philadelphia from 1765 to 1820.

Poster presentation - 1:00 to 1:30 p.m.

More Than a Title: Esmeralda Santiago

Rita Cain, Modern Languages

Mentor: Dr. Vivian García, Modern Languages

Puerto Rico is a beautiful place full of culture, people and paradise but it is a lot different from New York, which Esmeralda Santiago soon found out. Esmeralda Santiago was a Puerto Rican who moved to New York City at the age of thirteen. This move was like her starting over again. Santiago now had to learn

what was cultural acceptable in New York and how to speak English. Santiago made the best of her situations by always working hard and being dedicated. She was and still is a highly successful individual. She is a writer; producer of documentary films and speaks on the importance of education. Prior to Santiago's writing, it was believed that a Puerto Rican could not write anything other than memoirs. Her literary works prove otherwise. Overall, Santiago has proven that a title is just a word and does not define a person.

Poster presentation - 1:30 to 2:00 p.m.

Survey of Biometric Recognition Systems

Namik Bak Cakmak, Computer Science

Mentor: Dr. Ziya Arnavut, Computer Science

Biometric recognition refers to an automatic recognition of individuals based on a feature vector(s) derived from their physiological and/or behavioral characteristic. Biometric recognition systems should provide a reliable personal recognition schemes to either confirm or determine the identity of an individual. Applications of such a system include computer systems security, secure electronic banking, mobile phones, credit cards, secure access to buildings, health and social services. By using biometrics a person could be identified based on "who she/he is" rather than "what she/he has" (card, token, key) or "what she/he knows" (password, PIN). In this paper, a brief overview of biometric methods, and their advantages and disadvantages, will be presented.

Poster presentation – 1:00 to 1:30 p.m.

Stefan Zweig: A Friend Among Friends

Rebekah Calhoun, English

Mentor: Dr. Birger Vanwesenbeeck, English

Stefan Zweig fame since his suicide in 1942 has oscillated between notoriety and favorable recognition. This is because the author's intriguing reticence during a time of social upheaval in his native Austria during the rise of Hitlerism was seen as an aristocratic pomp, and a way of evading responsibility of defending the persecuted. However a close look at the characters of his stories reveals the reasons for his reluctance to make booming political proclamations in the public sphere, and why he may have done more

Poster presentation - 3:30 to 4:00 p.m.

Flipping the Classroom: A study of the effect of a flip classroom on students' homework completion, test scores and overall grades.

Andrew Carucci, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research examines how students react to the dynamic change from a traditional classroom to a flip classroom. It is hypothesized that students in a flipped classroom will have a better homework completion percentage, higher unit test scores and higher overall grades.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Retrospective Analysis of Royaltan Summer Recreation Program

Devin Case, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Project Proposal for Community Garden

Jayson Castillo, History

Mentor: Mr. Jeff Iovannone, History

I would like to present a proposal document along with a corresponding posterboard display which would call into question and address the situation of campus food options. I would like to present a project proposal for a new student group which would be responsible for opening and managing a student run campus garden. This student group will be responsible not only for the overseeing of proposed campus garden but would undertake the responsible of engaging in food activism on this campus.

Poster presentation – 2:30 to 3:00 p.m.

Molecular Characterization of a Microbial Community Associated with Manganese-Barium Rich Deposits

Nicholas Catanzaro, Michael O'Hara, Diala Ghazal, Biology
Mentor: Dr. Ted Lee, Biology

A petrological analysis of a sandstone unit in western New York showed some samples with significant manganese (16 wt. %) and barium (~1.8 wt.%). The lamellar, lobate textures of the Mn-rich cementing agent in the sandstone suggest bacterial deposition. There are biofilms present at the location that may portray a model for the creation of the deposits. We have initiated an investigation of the organisms that are present in the biofilm by conducting a 16S rRNA gene survey. The preliminary DNA sequence analysis used in conjunction with the Ribosomal Database Project has identified organisms from the beta and alpha proteobacteria as well as cyanobacteria. The closest matches are to beta proteobacteria environmental isolates associated with iron-rich deposits. Bacteria from the alpha and beta proteobacteria groups are known to have a role in the oxidation and reduction reactions involving manganese and iron.

Poster presentation - 3:00 to 3:30 p.m.

Film on a Women's Role in Italian Mafia

Nicole Ceppaglia, Modern Languages
Mentor: Dr. Chiara De Santi, Modern Languages

Italian Mafia is a subject many are interested in. However, many do not know that women play a role just as important as men. In Chiara De Santi's class, Mafia in Italian Film, we watched a film titled Angela. For the final project I brought the film to life here on the streets of Fredonia. I would enjoy showing this film in the Expo to bring a new perspective on a topic many think they know so well.

Poster presentation – 3:00 to 3:30 p.m.

Enactus

Danielle Chamberlain, Business Administration
Mentor: Dr. Susan McNamara, Business Administration

Enactus is a school team/group taking entrepreneurial action to create a more sustainable campus and community.

Poster presentation - 2:30 to 3:00 p.m.

Colonial Philadelphia's Working Class

Kristen Champoux, History
Mentor: Dr. Nancy Hagedorn, History

Despite the vast research done by Americans on the Colonial era, little research has been done on those who did not directly involve themselves in politics or the revolution itself. In particular the urban poor in Colonial Philadelphia made up the majority of the city's population but have the least developed history. This project will look at the social and economic mobility of the city's lower income population and its impact on everyday life especially health and health care services. Specific research will be on the occupations the lower class held and the opportunity they saw for advancement.

Poster presentation - 1:00 to 1:30 p.m.

4 Ducks

Matt Corrigan, Winner of Earth Week Art Competition

"4 Ducks" is a short children's story about 4 ducks that are driven from their home by a trash monster. The monster in the story is made from paper trash collected from the large field next to the Wal-Mart parking lot, and the book is drawn on hand made paper. The story teaches a lesson on environmental conservation, self-sufficiency and composting.

Displayed at expo through the day

Chautauqua County Rural Ministry

Hannah Farley, Supervisor and Coordinator; Kody Hoth, Intern

Chautauqua County Rural Ministry is an interfaith, non-denominational human service agency based on the belief that every person is deserving of adequate food, clothing and shelter, and work opportunity by which to acquire basic necessities. Its purpose is to encourage self-determination and self-development, empowering people to become contributing members of society. At our location in Dunkirk, NY, we have a food pantry, soup kitchen, gleaning and food recovery program, community garden project, furniture gallery, clothing gallery, apartments, and many other services to aid the community.

Poster presentation – 1:30 to 4:00 p.m.

Campus Activism

Ryan Chilelli, History

Mentor: Mr. Jeff Iovannone, History

My poster will be a part of our class "campus activism" project. The project asks us to look at an issue of gender or race authority on campus or the Fredonia region and then develop an idea to help reduce the issue. My issue concerns the lack of health care options for pregnant students that aren't from the area and are forced to dorm far away from their local OB/GYN. My resolution is the development of a campus birth clinic or something of the sort to help give this category of women more options other than travelling to Brooke's Hospital.

Poster presentation - 3:00 to 3:30 p.m.

Retrospective Analysis of Fredonia State Intramurals

Jim Christopher, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Stale Bread is Ratchet Bread

Kevin Civileto, Cody Essek, Physics

Mentor: Dr. Justin Conroy, Physics

We would like to examine what happens chemically when bread loses its freshness and goes stale. After doing some research, we will attempt to answer this question by conducting several experiments. Firstly, we would like to examine the effect temperature has on the freshness of bread by placing samples of bread in different temperatures. After discovering which breads go stale first, we can determine if temperature has a correlation to freshness. Second, we would like to examine different kinds of bread and the rates at which they go stale in order to hopefully uncover which ingredients have an effect on the freshness of the bread. Lastly, we would like to see how effective emulsifiers are in keeping bread fresh. To do this, we could test the freshness of breads that have emulsifiers in their ingredients as well as those that do not. We could also make and test our own bread, including and excluding emulsifiers. Overall, we would like to evaluate the freshness of bread and the different things that may have an effect on how long bread remains fresh before going stale.

Poster presentation - 2:00 to 2:30 p.m.

Fracking Report:

Sean Clancy, English

Mentor: Dr. Shannon McRae, English

As part of my capstone, I have acquired an internship with a small, grass roots advocacy group called Advance New York. I am a part of their Environmental and Sustainability initiative. I am working as a legislative intern in order to promote progressive legislation at the state level. I would like to orchestrate a poster discussion on environmental and health impacts of hydrofracking in New York State.

Poster presentation - 3:00 to 3:30 p.m.

3G Sensor Transmission

Daniel Coffaro, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

When a disaster strikes, time is of the utmost importance. This is especially true when it comes to the medical care of those affected. The proposed system would allow biometric data to be sent on the fly to the hospital that the patient is on route to. This would allow medical staff to properly prepare for their arrival. Including gathering necessary supplies and equipment, and even coming up with a possible diagnosis before the patient even arrives at the hospital. The proposed system would use medical sensor onboard the ambulance to retrieve the patients biometric data. This data would then be sent over a 3G wireless network to the hospitals server, where it could be accessed and used by staff. This system could also use a wifi connection to allow for faster transmission when the range allowed for it.

Poster presentation - 5:30 to 6:00 p.m.

Belize Service Project & Friends Across Borders Club

Alissa Cole, Language, Learning & Leadership/Volunteer and Community Services

Mentor: Dr. Janeil Rey, Language, Learning & Leadership/Volunteer and Community Services

The Belize Service Project is an annual experience in which a group of approximately 30 to 35 SUNY Fredonia students have the opportunity to teach both general education and or special education children in Belize City for two weeks during the J-Term. Each student prepares a total of ten age and learning level appropriate lesson plans, including handouts and supplies for hands on activities for use in their assigned classroom. The Belize children's families and the schools are economically diverse and they appreciate the assistance these students provide; in the forms of educational support and much needed school supplies. The organization known as FAB (Friends Across Borders) Club does fundraising throughout the year to purchase school supplies and sponsors events for school supplies donations. I am currently the President of FAB. This past J-Term we were able to collect an average total of 384 Lbs. of school supplies, filling eight large suitcases, which we took to the schools in Belize. I found this experience to be very rewarding both personally and professionally.

Oral presentation – 2:00 to 2:30 p.m.

The Art of Sexual Education

Lee Coletti, Matthew Pisarski, History/English

Mentor: Mr. Jeff Iovannone, History/English

For our project, we would like to create a festival, consisting of different art forms including music, dance, spoken word, and visual art. We would like this to focus on the issue of sexual education, due to the lack of knowledge of students entering college. In presenting it through art forms, it can reach out to a wide array of students, it would avoid the awkward lecture given by an adult, therefore taking away the uncomfortable feelings often associated with sexual education.

Poster presentation - 2:30 to 3:00 p.m.

Toilet Talks

Lacey Condon, Sociology/Public Health

Mentor: Dr. Linda Dorsten, Sociology/Public Health

One of the purposes of the Chautauqua County Health Department is to educate the public on relevant public health issues and topics. My job at the internship was to identify some of those topics and conduct research on them. I take the research I did and design a "Toilet Talk" that would attract reader's attention and offer tips and facts about the topic and arrange them in ways that are appealing to the eye. I would then offer a call to action to invite the reader's to learn more. After these were formatted, they were sent to business throughout Dunkirk and Fredonia to benefit their employees.

Poster presentation - 3:30 to 4:00 p.m.

Retrospective Analysis of TJ Maxx

Tatihana Cooper, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Connecting Social Work and Public Health

Chelsea Corbett, Public Health

Mentor: Dr. Linda Dorsten, Public Health

The process of linking classroom information with applicable skills in the field is one that requires the use of self, available knowledge sets and outside research. It requires finding and making connections between your academic major, minor and relative internships to broaden the scope of your educational experience. In conjuncture with the Chautauqua County Health Department and SUNY Fredonia's Public Health minor, the author of this abstract has begun this process. Through the research and development of ten, "Toilet Talks," which are part of a preventative health poster series, I have begun to find and make these links between my Social Work major, Public Health minor and internship experience. Through these talks, I have not only expanded my research and design skills but have expanded my understanding of life in the professional field of public health. Through this visual representation, I will demonstrate to my audience the journey I have taken at SUNY Fredonia both as a Social Work major, Public Health Minor and professional individual.

Poster presentation – 1:30 to 2:00 p.m.

Gender Neutral Housing

Erik Corrie, History

Mentor: Mr. Jeff Iovannone, History

My project is going to bring light to the issue of Gender Neutral Housing, the effects of it on transgendered students, and the changes in the school's computer system that are necessary in order to provide a comfortable freshman housing situation for all students; male, female, and transgendered.

Poster presentation – 3:00 to 3:30 p.m.

High Water Everywhere: Finding History Through Blues Lyrics And Tradition

Matt Corrigan, History

Mentor: Dr. Jennifer Hildebrand, History

The purpose of this research and presentation are to find history by studying the lyrics and traditions of blues music. The focus will be on Mississippi Delta Blues and the music that is based upon the famous Mississippi flood of 1927. I will look at lyrics by artists such as Charley Patton, Barbecue Bob, John Lee Hooker and many more to find historical significance of lyrics and the way that they capture a moment in history.

Poster presentation - 5:00 to 5:30 p.m.

The Wingate Test

Shaun Crisman, Andrew Christ, Kyle Kozlowski, Conner Lorenzo, Exercise Science

Mentor: Dr. Todd Backes, Exercise Science

We proposed a question; "Does drinking coffee affect the outcome of one's performance during the Wingate Test?" Subjects include six males and one female that are considered healthy individuals. There are two separate tests. For the first test, each subject will be deprived of caffeine for seventy-two hours. For the second test, each subject will consume a ten ounce coffee from Tim Horton's one hour prior to the test. We will be measuring peak anaerobic power, relative peak power, anaerobic fatigue, and anaerobic capacity. Once the two tests have been performed, we will take our calculated results and compare between the two to determine whether coffee has an effect on the Wingate test. Our hypothesis is "With the consumption of Caffeine there will be no effect on peak anaerobic power, relative peak power, anaerobic fatigue or anaerobic capacity during a short, high intensity exercise like the Wingate test."

Poster presentation - 2:00 to 2:30 p.m.

The Environment in Reggio Emilia inspired learning centers

Dawn Cross, Curriculum and Instruction

Mentor: Dr. Mira Berkley, Curriculum and Instruction

A brief look at how the environment of early childhood education centers affects the learning of the children there. Reggio Emilia is a town in Italy that practices a very child centered view on early childhood education. Their teaching practices have diffused into other parts of the world and has begun to have a positive and enriching impact on North American Early Childcare Centers. This presentation will discuss how the environment impacts learning, through the use of inviting and evocative arrangement of learning materials. The use of photos from Italy will be center to the presentation.

Graduate Student oral presentation - 5:00 to 5:30 p.m.

Color Cake

Myava Cuhel, Dylan Scacchetti, Physics

Mentor: Dr. Justin Conroy, Physics

We are interested in the effects that food coloring may have on the food we consume. In this procedure we will be using a Red Velvet Cake recipe, and modifying it with different food colorings. We will also have a control group without food coloring. Using this data we hope to learn about the psychological, as well as the physical, effects color has on the food we consume. This will be a taste test. We will be presenting a poster on our findings.

Poster presentation - 1:30 to 2:00 p.m.

Evaluating Classroom Diversity Using Social Networking Analysis

Zach Daily, Computer Science

Mentor: Mr. Robert Olson, Computer Science

Project CASSI (Classroom Assisting Social Systems Intelligence) is an educational decision support system whose goal is to provide educators with information that would help reduce bullying. Towards this end, a component of Project CASSI is aimed at forming optimal classrooms based on behavioral data. This research project aims to diminish unintended racial, gender, economic, or academic partitions of students inside of classrooms formed by using software that automatically generates seating charts. Specifically, this project aims at improving the effectiveness of existing anti-bullying software by promoting diversity. A method will be proposed for guaranteeing diversity by minimizing the number of homogeneous student relationships in the seating chart. Results will be discussed that show the benefit gained by including this type of constraint for seating chart generation. Ultimately, it will be argued that this type of social network analysis should be included in seating chart generating software to guarantee diversity.

Poster presentation - 2:00 to 2:30 p.m.

Retrospective Analysis of Village of Patchogue Recreation Department

Samantha Dallas, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of World Gym

Christina DellaNeve, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Altering the Contents of our Wandering Minds

Joseph DeMaria, Psychology

Mentor: Dr. Jennifer Dyck, Psychology

Mind wandering is a shift of attention away from a primary task toward internal information. Mind wandering seems to occupy a little more than one-third of our cognition on a daily basis, but little is known on what a mind wanders about. In the present study, we designed a method to sample thoughts of a potential wandering mind and assess its contents. In experiment 1, we examined whether the content of wandering minds could be manipulated. Participants were given an essay prime and then read a passage in which they were periodically asked to write their thoughts. Results indicated that essay primes did not significantly impact the content of wandering minds. In experiment 2, we aimed to explore what exactly people mind wander about within a realistic context. Subjects were periodically asked to write their thoughts during a reading passage. Results of experiment 2 and overall conclusions will be presented.

Poster presentation - 3:00 to 3:30 p.m.

Duke Ellington

Meghan Devine, History

Mentor: Dr. Jennifer Hildebrand, History

My project will focus on the life of Duke Ellington and his contributions to the Blues/Jazz ages. I will focus on how his music reflected the culture around him, and how he was also influenced by the changing times.

Poster presentation -2:00 to 2:30 p.m.

African Americans, Music, and World War I

William Dickinson, History

Mentor: Dr. Jennifer Hildebrand, History

I will present my research in poster form of the impact of African Americans and their music in World War I. My research will include information such as the impact of the regimental bands such as the 369th Regiment (Harlem Hellfighters) in Europe and back at home. My research will also explore the impact of these same African Americans on the battlefield and their importance in the work effort.

Poster presentation - 5:00 to 5:30 p.m.

Philadelphia Campaign

Philip DiFrancisco Jr., History

Mentor: Dr. Nancy Hagedorn, History

I am going to show how the Philadelphia Campaign during the American Revolutionary War had an enormous impact on the city as well as the people of Philadelphia.

Poster presentation - 1:00 to 1:30 p.m.

Pi Day Activity

Sara DiFulvio, Jennifer Smith, Elizabeth Brion, Mathematical Sciences
Mentor: Ms. Rebecca Conti, Mathematical Sciences

We participated in a Pi Day activity with seventh and eight graders. The activity we came up with had the students graph the diameter and circumference to make a best-fit line of their data. The slope then came out to be Pi. Through a poster we would like to present our activity. Also, Sara DiFulvio tutors students from Pre-k to third grade in mathematics. Her goal is to make activities for the students to do that have practicing math be fun for them. She would like to present her ideas, activities and games that she's come up with this semester and done with the students. Hopefully, through this student research and creativity exposition we will get to talk with people who will give us feedback on our activities. This will then help us redefine our activities and hopefully get ideas to come up with new ones.

Poster presentation - 3:00 to 3:30 p.m.

Historical Reflections on the Moral Economy Argument

Alexander Di Leo, Emily Baer, Sarah M Roffe, Lindsay Rynders, History
Mentor: Dr. Eileen Lyon, History

"Social norms and obligations, or the proper economic functions of several parties within the community" form the basis of moral economy. Outrage to moral assumptions and actual deprivation cause the direct action of the common people. Historian E.P. Thompson defined this concept to describe the English food riots where men stole grain from the middle-men, sold it at a fair price, and then returned the money collected to the middle-men. The concept itself is timeless and can be seen in uprisings and protests in a variety of cultures and countries.

Poster presentation - 2:30 to 3:00 p.m.

Nativism

Josh Domalski, History
Mentor: Dr. Nancy Hagedorn, History

I am writing my final paper on Nativism. My thesis will focus on proving that Nativism existed prior to the time it was coined in the 1850's. By doing a poster, I can highlight major nativists in Colonial Philadelphia such as Benjamin Franklin. The idea for writing on Nativism came from the movie, Gangs of NY. Thus, a picture of Bill the Butcher would allow anyone to understand what a nativism is. By putting a picture of Benjamin Franklin next to him, many would be shocked to realize a founding father was a nativist.

Poster presentation - 3:30 to 4:00 p.m.

A project from Puerto Rico: A look into the life and musical creations of Tito Puente

Cara Doyle, Modern Languages and Literature
Mentor: Dr. Vivian Garcia, Modern Languages and Literature

Tito Puente, a Latin jazz artist of the 1900's, remains praiseworthy today. Between his eclectic influences and early training, Tito added unique, professional elements to jazz music. These things made him both a prodigy and a legend. Maestro Tito was born in New York City to parents of Puerto Rican ancestry. Due to this upbringing and diverse background, he became recognized worldwide and these things facilitated his wide acceptance and success in the music industry. Throughout his life, he became involved with various people and played percussion, specifically the timbales, in different bands. It was during his work with the famous Cuban-born singer Celia Cruz at the Palladium in the 1960's that his international standing became evident. Studying in Puerto Rico allowed me to see first-hand the influence that this master musician had and still has on the island of his ancestry.

Poster presentation - 2:00 to 2:30 p.m.

The Big Read Call of the Wild

Elizabeth Drescher, Sydney Blizzard, Brittney Noble, William Lista, English
Mentor: Dr. Emily VanDette, English

After reading an adapted version of *The Call of the Wild*, by Jack London, we worked with a small group of fourth grade students from Fredonia Central. During this we exposed them to group discussion, analyzing the novel, writing activities and hands on activities.

Poster presentation - 1:00 to 1:30 p.m.

Ring Shout

Abigail Dry, History

Mentor: Dr. Jennifer Hildebrand, History

My work will be focused on the ring shout and several different "shout songs" that were present throughout African American History. The ring shout was primarily active in the Colonial and Revolutionary Era in the United States. I am exploring how enslaved African Americans used the ring shout, a mix of song and dance, to relate to their African heritage and create an American identity. It was important for African Americans to remember where they came from. They used that as hope for a better future. Studying the aspects of the ring shout will show how it shaped African Americans and their lives in slavery, and how it kept them going. I will be looking at one song in particular "Kneebone Bend" as an example of a "shout song" for the ring shout. Understanding the past of African Americans will help me better understand how they created their American identity.

Poster presentation - 5:00 to 5:30 p.m.

Engaging in our Community Series: Delta Chi

Jesse Duane, Volunteer and Community Service

Mentor: Ms. Joyce Smith, Volunteer and Community Service

For 20 years, the Delta Chi Fraternity has worked with the Volunteer and Community Service office to make our community a better place to live. Logging over 300 hours annually for the past 4 years, we have increased our efforts and would like to share our experiences and passion with the campus. We will create a poster highlighting some of our major events including: Operation Breakfast Rescue, Day for Kids, Miracle on Main St, and The Spring Egg Hunt.

Poster presentation - 2:00 to 2:30 p.m.

CFA Research Challenge

Ryan Edens, Jeff Holloway, Robert Young. Tiffany Place, Business Finance

Mentor: Dr. Tai David Yi, Business Finance

I propose to show our group presentation that we presented at the 2012/2013 CFA Institute Research Challenge. Research was done on the subject company, Computer Task Group, and a written research report was written pertaining to valuation of the company. The research paper was presented in Buffalo in February.

Computer presentation – 5:00 to 5:30 p.m.

A Study of Undergraduate Students' Misconceptions of Radical Expressions

Kyle Erlandson, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores the common misconceptions exhibited by undergraduate Survey of Precalculus and Survey of Calculus students regarding the topic of radical expressions and attempts to determine the source of these misunderstandings. It is hypothesized that these students will lack a geometric understanding of radical expressions and the majority of these students will be unable to construct an exact length of an irrational number. It is further hypothesized that these students will be more successful at combining common terms in a polynomial than when combining comparable common radical terms.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Engaging in our Community: Students in Service Relay for Life of SUNY Fredonia

Jaclyn Faliero, Volunteer and Community Services

Mentor: Ms. Joyce Smith, Volunteer and Community Services

We would like to represent the club Colleges Against Cancer and display/present about the various forms of community service which includes Relay for Life (which raised over \$25,000 and included over 400 participants) and other things we do throughout the year. Our club does a lot of community service on campus and around the local community. Our goal is to educate and raise awareness about cancer and by participating in the expo we can do that.

Poster presentation - 2:00 to 2:30 p.m.

Great Lakes Plastic Pollution Assessment

Hannah Farley, Environmental Sciences

Mentor: Dr. Sherri Mason, Chemistry

In July 2012, as part of a summer field course aboard the Flagship Niagara, SUNY Fredonia collaborated with the 5 Gyres Institute to conduct the first ever survey of plastic pollution in the Great Lakes. We collected a total of 21 open-water samples on 3 of the 5 Great Lakes (Lakes Superior, Huron and Erie). Samples were analyzed for plastic debris and the density count of plastic pieces per square kilometer of lake surface was calculated. While we were not surprised to find plastic within our open-water samples, we were surprised by the size distribution of the plastics we found. Results from our summer research expedition will be presented and their implications discussed.

Poster presentation – 1:00 to 1:30 p.m.

Campus Climate Challenge

Hannah Farley, Environmental Sciences/Volunteer and Community Services

Mentor: Dr. Christina Jarvis, English/Ms. Joyce Smith, Volunteer and Community Services

The Campus Climate Challenge is the environmental justice group at SUNY Fredonia that participates in a variety of events concerning sustainability and forming ties within the community. In the past year, the club's focus has revolved around local food, local economies, and Earth Week. The club had taken tours and volunteered at a variety of local farms within Chautauqua County, hosted "sustainable" potlucks in the community, attended "Climate Rally 2013" in Washington D.C., and participated in the coordinating of Earth Week.

Our objective is to help create a more sustainable future for the generations to come.

Poster presentation – 2:00 p.m. to 2:30 p.m.

Apprentices In Colonial Philadelphia

Zachary Fay, History

Mentor: Dr. Nancy Hagedorn, History

My Research will focus on the types of apprenticeships that were utilized in colonial Philadelphia and how they affected the social, political, and economic structures of early Philadelphia. This presentation will focus on the types of apprenticeships that were most successful and those that caused apprentices to run away from their bounded labor to pursue an alternative duty. This presentation will draw from primary and secondary documents to establish the roles that the apprenticeships of colonial Philadelphia had in society and the economy.

Poster presentation - 1:00 to 1:30 p.m.

Retrospective Analysis of Rochester Redwings Baseball

Victor Fermin, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Plastic Pollution

Parker Fink, Chemistry/ Environmental Sciences

Mentor: Dr. Sherri Mason, Chemistry/ Environmental Sciences

During the summer of 2012 our research group was the first to survey the Great Lakes for Plastic Pollution. Our most surprising result was the prevalence of micro-beads of plastic within our open-water samples. While these micro-plastics could come from the break-down of larger plastic items, we hypothesized that they could be originating from a more direct source: personal care products. Many facial cleaners, toothpastes and even shampoos now contain plastic micro-beads as exfoliants. Laboratory studies have postulated that these micro-beads could survive through the wastewater treatment process. The purpose of this study was to analyze in real-time the effluent from several wastewater treatments plants for plastic debris. Results and discussion will be presented.

Poster presentation - 3:30 to 4:00 p.m.

Comfortable Walking Speed

Chelsea Fisher, Katlin Hunt, Zack Kiendl, Isaiah Ryan, Exercise Science

Mentor: Dr. Todd Backes, Exercise Science

All people have a speed that they are most comfortable walking at. Interested in which walking speed and grade poses the most benefits, researchers aimed to determine their CWS, comfortable walking speed, on a treadmill and a 10% increase and decrease of that speed. Subjects walked for 6 half miles; CWS at 10% incline, CWS at no incline, 10% decrease in CWS at 10% incline, 10% decrease in CWS at no incline, 10% increase in CWS at 10% incline, and 10% increase in CWS at no incline. To determine oxygen consumption and caloric expenditure, heart rate was tested and RPE scales given. Changes in joint angles were also found by analyzing video recording of subjects walking using dartfish software. It is expected that RPE values, heart rate, oxygen consumption, and calories burned will increase with speed and grade. It is also hypothesized that hip flexion and extension and knee flexion will increase with increased speed and that there will be no significant differences between male and female subjects.

Poster presentation - 1:00 to 1:30 p.m.

The Impact of Touching a Dog on Heart Rate in Children during the Execution of a Working Memory Task

Amy Fisk, Marcus Stendahl, Victoria Coglitore, Alexis Perez, Psychology

Mentor: Dr. Nancy Gee, Psychology

Research in the area of Human-Animal Interaction has demonstrated that the presence of a dog has a moderating impact on some measures of physiological reactivity to stress. For example, blood pressure is lower in children who have a dog with them when they have a physical examination by a doctor or go to the dentist. However, this research has not examined the impact of touching the dog, nor has it evaluated performance during a cognitive task. In the current study, participants ages 6-13 wore a heart rate (HR) monitor while listening to a story and performing a working memory task on three occasions: touching a dog, touching a stuffed dog and touching a human. Preliminary data suggests that HR is significantly lower while touching the dog relative to the human or stuffed dog. The complete data set will be presented and discussed.

Keywords: Heart Rate, Working Memory, Therapy Dog

Poster presentation - 2:00 to 2:30 p.m.

Hydration/Fluid Replacement

Kimberly Fitzgerald, Exercise Science

Mentor: Dr. Todd Backes, Exercise Science

Athletes have been directed to follow hydration/fluid replacement recommendations. These recommendations are often given irrespective of the physiological mechanism that drives fluid replacement; thirst. Presumably the impetus behind these recommendations comes from the large amount of laboratory data that indicates even a small amount of fluid loss during exercise can be detrimental to exercise and cognitive functions. The objective of this study is to examine two hydration

recommendations, one irrespective of thirst, the other determined by thirst. Subjects completed identical 60 minute exercise protocols on a treadmill for both fluid conditions followed by a high intensity portion that terminated at voluntary exhaustion. We also conducted a series of cognitive and hand–eye coordination tests during the treadmill protocol under both fluid conditions. Additionally, saliva was collected and analyzed for changes in cortisol and alpha amylase levels; these have both been demonstrated to be good indicators of physiological stress.

Oral presentation – 2:30 to 3:00 p.m.

An Investigation into the Addictiveness of Chocolate

Kimberly Fitzgerald, Katherine Marusarz, Alissa Jolley, Physics
Mentor: Dr. Justin Conroy, Physics

It has long been said that people get "chocolate cravings" and that often times these cravings are for a certain type of chocolate. In this investigation we look into the chemical components of chocolate and examine if any of these compounds have addictive properties. We also examine different types of chocolate and if any additional ingredient add or subtract from the appeal of the chocolate.

Poster presentation – 1:30 to 2:00 p.m.

Retrospective Analysis of Arriba Tortilla

Kimberly Floyd, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Poetry Off the Page

Gabriel Fontanez, Kristie Beckinghausen, Shelby Converse, Laura Distaso, Ashley Friedman, Dan Hahn, Alice Hodge, Jake Lesinski, Drew Lockwood, Peter Mason, Jesse McMahon-Eagan, Emily Metzler, Teresa Porcaro, Mark Schlewitt, Will Walawender, English
Mentor: Dr. Aimee Nezhukumatathil, English

The students of ENGL 460, Advanced Poetry Writing, will display and informally talk about the presentation and craft of visual poetry. The poems presented will be a combination of the students' own original work and a selection of contemporary poems we have studied during the semester. Each visual poem was "written" with a writing instrument (and often ink!) of their own making to further highlight the process of re-visualizing poems in new and surprising ways.

Poster presentation - 5:00 to 5:30 p.m.

Reinforcing Body Norms: How Gay Men Are Represented in Pop Culture and How it Effects Body Image

Kayla Fraser, Women's & Gender Studies
Mentor: Mr. Jeff Iovannone, Women's & Gender Studies

This project will take a look at how our society, through the use of TV, movies, advertising, Facebook and Youtube, reinforce body norms and what it means to be a "man" in our culture. It will look specifically at what it means to be a "gay man" and how these medias reinforce stereotypes surrounding the LGBT community. I will look at the cultural way that certain people are represented in the media and how this effects body image. I will also look at how feminist theory can help to unpack these issues in order to understand them in a theoretical way, and how feminist theory can work with queer theory to work against the "norms" and expectations that have been socially constructed.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Retrospective Analysis of Buffalo Sabres

Caitlin Fuller, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

The Effect of Symptom Presentation and Symptom Severity on Attitudes About Autism Spectrum Disorders

Justine Gabreski, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

This research investigated undergraduate students' perceptions of children with autism spectrum disorder based on the severity of a child's symptoms and presentation of these symptoms in a narrative or diagnostic format. The low functioning child was highly stigmatized despite symptom format. Diagnostic presentation of symptoms led to lower stigma toward the high functioning child. Additionally, the low functioning child's symptoms were seen as more medical and genetically influenced than those of the high functioning child.

Poster presentation - 1:00 to 1:30 p.m.

Beyond Renovations Inc.

Christopher Galayda, Anthony Reggi, Mark Mackowiak, Marisa Caruso, Business Administration

Mentor: Dr. Susan McNamara, Business Administration

A well devised business plan for a new company called Beyond Renovations Inc. This firm looks to service small towns/communities using energy efficient and eco-friendly materials. Materials taken out of renovation jobs will be recycled and donated to local charities instead of thrown into dumpsters. This business looks to satisfy the market niche of unnecessary waste of perfectly good materials that are often thrown out after completion of renovation jobs. Strong community ties and relationships are developed through charitable donations and the embitterment of our community. Our go green approach is used to renovate any job desired while providing the customer with lasting money saving products as well as the satisfaction of knowing recycled materials were used to provide for the needs of their community. Everyone knows a community is only as strong as its foundation and Beyond Renovations provides the cornerstone to support our growing community.

Poster presentation - 1:00 to 1:30 p.m.

Retrospective Analysis of Bruegger's Bagels Bakery

Jeannie Galbraith, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Presence of a therapy dog impacts verbalizations in a storytelling task in preadolescent children

Samantha Galloway, Emily Lipski, Psychology

Mentor: Dr. Nancy Gee, Psychology

Dogs have been shown to decrease or moderate cardiovascular stress response in children. Based on these sorts of findings there are now a number of programs aimed at helping children learn to read by asking them to read to a dog. To date, the efficacy of such programs has not been examined experimentally. The current study examines the number and type of verbalizations made by middle school and preschool children in the presence of a dog or a human listener. All of the children were asked to tell a story to a person or to a therapy dog. The children were asked to base their stories on what they perceive to be happening in a picture book with no text. Each child was asked to tell two different stories from the same picture book series to both the person and the dog, for a total of four stories told by each child. The results of the data analysis will presented and discussed.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Retrospective Analysis of Camp Stella Maris

Danny Galusha, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

Poster presentation - 5:00 to 5:30 p.m.

Opioid Dependence

Mohammed Gasmelbari, Sociology

Mentor: Dr. Linda Dorsten, Sociology

Opioid dependence could be explained as one's inability to stop taking opioids even when that falls in their best interest. This has been a growing problem in the US. My proposal is to present a poster which includes some of the information I researched and some of the findings I obtained during my internship with The Resource Center in the spring semester of 2013. It shall include statistics showing the prevalence rates of opioid dependence in American states. It will also provide a local perspective about providers who can prescribe SUBOXONE® for treatment in Chautauqua County and give some background information about the appropriate stages of treatment. Finally my poster will address a number of laws and legislations concerning the treatment of opioid-dependence in the US.

Poster presentation - 5:00 to 5:30 p.m.

The Fisherman and his wife (stop motion)

Brittany Georgalas, Brooke Brown, Zach Herring, Animation Illustration

Mentor: Dr. Jill Johnston, Animation Illustration

In the presentation We would like to show everyone the wonders on how to create a stop motion animation. Many people are curious about the process and work that goes into some of their favorite movies. By having a table set up with props, information, and our video playing on a laptop We can help everyone to understand the process that is used to create a stop motion film to help show people how much work actually goes into them.

Presentation – 2:30 to 3:00 p.m.

A Study of the Misconceptions of Metric Conversions and the Difficulties Behind Metric Unit Estimation

Jennifer Pfeffer Gilman, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research explores the misconceptions of metric conversion and the difficulties behind metric unit estimation. Even though the United States has not adopted the metric system as its unit of measurement, one uses the metric system throughout their life. The metric system is used quite frequently in numerous jobs and career paths. It is even seen in local grocery stores. Without the knowledge of the metric system tasks that should take minimal effort become a serious struggle. MY study focuses on finding common misconceptions and difficulties in metric conversion and estimation by administering an assessment followed by a survey. It is hypothesized that middle school students will express difficulty with the metric system. It is also hypothesized that middle school students will be able to convert from a large metric unit into a small metric unit more accurately than converting from a small metric unit into a large metric unit. Furthermore it is also hypothesized that middle school students will be able to estimate metric units smaller than a meter more accurately than units of a meter of larger.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

The Diary of Anne Frank Dramaturgy

Maggie Gilroy, Deanna Jelardi, Theatre and Dance

Mentor: Dr. Jessica Hillman-McCord, Theatre and Dance

As the dramaturge for The Diary of Anne Frank, my job has been to accumulate research for the actors as well as the audience. I have compiled a research binder for the cast to refer to in order to inform their

performances, created a lobby display and program notes to help further inform the audience. In addition, I have created educational tools and workshops for "Drama Day", a special event for schools in the community. This presentation will be a display of the research I have conducted over this year-long process. It will include the binder, lobby display, program notes and pictures of Drama Day.

Poster presentation - 2:00 to 2:30 p.m.

Heat-Shock Proteins

Emily Ginty, Biology

Mentor: Dr. Frederick Harrington, Biology

When an organism is exposed to temperatures just below their lethal threshold a certain group of genes are activated known as Heat-Shock Proteins (HSPs). These proteins protect against further heat damage once activated. The organism of interest in this project is the unicellular green algae *Chlamydomonas reinhardtii*. HSP systems have been identified in this algae and the goal is to monitor the up regulation of these proteins, HSP22 and HSP70 in particular. Using RNA extraction, real time polymerase chain reaction, and gel electrophoresis the HSP mRNA expression will be examined after experiencing different stressors. Also of interest is the possible connection of HSPs to not only heat but also CO₂ and nutrient starvation and heavy metal exposure. Information on how algae respond to stresses will be applicable when growing algae for CO₂ and waste water mitigation and for the production of biofuels.

Poster presentation - 2:00 to 2:30 p.m.

Retrospective Analysis of Clear Channel Communications

Kelsey Gorney, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of BW's BBQ

Cody Grasso, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of Fredonia State Track and Field

Hailey Griewisch, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Examining Associations Between Online Video Tutoring and Academic Performance

Caroline Griffith, Psychology

Mentor: Dr. Dani McMay, Psychology

Students seeking extra tutoring in courses at a small Midwestern college took part in either visual online tutoring (through Google Apps) or face-to-face tutoring through the campus library. After the tutoring session, students were given a survey containing both Likert-scale and open-ended questions. Students were asked to rate the performance of their tutors as well as to rate their own perceptions of understanding the material after the tutoring session. Students were also asked several demographics questions (e.g., class rank, major, overall GPA) and to identify reasons they sought tutoring that day, and if they would

seek tutoring in the future. Students' desire and ability to access video online tutoring over face-to-face tutoring are discussed.

Poster presentation - 1:00 to 1:30 p.m.

Retrospective Analysis of Sigma Gamma Phi

Emily Griffith, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of Sinners of Solitude

Steve Grzybowski, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of Long Island Rough Riders

Janine Guarriello, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Premium Liquor

Laura Hart, Alison Phillips, Physics

Mentor: Dr. Justin Conroy, Physics

We will be running different brands of cheap liquors through a charcoal filter to see if we can enhance the quality of the brand. This will be tested by a matter of taste.

Poster presentation – 5:00 to 5:30 p.m.

Reading Beyond the Blood: A Post-Colonial Reading of Agatha Christie's Works

Jacqueline Hebert, English

Mentor: Dr. David Kaplin, English

Agatha Christie, like Jane Austen and John Steinbeck, successfully captured a time long past in her work. When one reads her work in the genre of mystery and detective fiction, one glimpses the events and attitudes of war, assumptions about imperialism and foreigners, day-to-day life of English folk in every walk of life, as well as the current impressions of psychology. My thesis looks across the body of Christie's works through historical contexts and the lenses of imperialism and colonialism to argue that unlike Austen and Steinbeck, Christie places these ideas in the backgrounds of her stories, displaying these realist elements behind the imagination and fantasy of the murder mysteries. I contend that through character attitudes, side conversations, and possible motives, the reader glimpses these assumptions in the background of the plot. By reading her texts, the reader gains access to this historical snapshot and becomes aware of the attitudes (whether realistic or exaggerated) associated with these assumptions. My project explores the embodiment of these assumptions in multiple primary texts, illustrating both their impacts on the stories and the implications they make about Christie's contemporary world, as well as those who inhabit it.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Luiz Munoz Marin

Bradley Heferle, Modern Languages and Literature

Mentor: Dr. Vivian Garcia, Modern Languages and Literature

The important individual whom I focused my research on was the first democratically elected governor of Puerto Rico, and known as the "father of modern Puerto Rico", Luis Munoz Marin. Munoz Marin was a poet, journalist, traveler, and politician who had a dramatic influence on the path that Puerto Rico took into the modern world. He was re-elected again in 1952, 1956, and 1960 and during his governorship he achieved a lifelong goal in changing Puerto Rico's status to that of a Commonwealth of the United States. The main civil airport on the island of Puerto Rico bears his name (Luis Munoz Marin International Airport) as well as other institutions, particularly those directed towards education. Although he did some questionable things and has a mixed reputation with today's Puerto Rican people, he did bring the island into the modern world and lead it to where it is today.

Poster presentation - 5:00 to 5:30 p.m.

Art Therapy Awareness

Katherine Hertweck, Casey Perry, Visual Arts and New Media

Mentor: Dr. Peter Tucker, Visual Arts and New Media

Researching art therapy awareness on campus, because the campus seems to lack any art therapy programs. Trying to set in motion workshops/a program to have art therapy available to all students.

Oral presentation - 3:30 to 4:00 p.m.

Blues and African American Culture

Robert Hewitt, History

Mentor: Dr. Jennifer Hildebrand, History

I will be examining the lives and works of blues artists B.B. King and Robert Johnson. My goal is to figure out what effects these artist as well as the entire blues community has had on shaping African American culture in the United States.

Poster presentation - 3:00 to 3:30 p.m.

An Examination of High School and College Students' Misconceptions Regarding Solution Methods of Exponential Equations

Ashley Hewson, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research examines the errors and misconceptions exhibited by students when solving exponential equations. It is hypothesized that high school students in Algebra 2/Trigonometry and Pre-Calculus classrooms will use guess and check strategies and linear arithmetic approaches to solve exponential equations. Few or no students will use logarithmic properties to assist them in solving an exponential equation.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Pyruvate Kinase Regulates Gurken Translation by Reduced TOR Activity in D. Melanogaster

Danielle Hindes, Biology

Mentor: Dr. Scott Ferguson, Biology

Gurken expression is integral to proper dorsal-ventral polarization of Drosophila oocytes. Unrepaired DSBs in oocyte development of spindle-class mutants inhibit cap-dependent translation of gurken and a loss of dorsal fates. A mutation in the PyK gene was found to be a suppressor of the ventralized eggshell phenotype seen in spindle-bBU mutants. The PyK mutation suppresses by overcoming the cap dependent translational block. PyK is a part of the TOR signaling pathway. Direct inhibition of TOR kinase with rapamycin suppresses the mutant phenotypes in spn-B mutants. During dietary starvation, TOR inhibition suppresses cap-dependent translation by alleviating its repression of the translational inhibitor eIF4E binding protein. Recent data suggests that the mechanism by which PyK suppresses is through use of IRES-dependent translation initiation of gurken when TOR activity is low. This suggests that flies

are able to maintain the translation of developmentally important transcripts such as gurken during periods of nutrient limitation.

Poster presentation - 1:00 to 1:30 p.m.

Operation Smile

Kristina Hodnett, Ashley Anne Tyson, Jillian Johnson, Megan Favale and Claire Berger, Communication Disorders and Sciences

Mentor: Dr. Bridget Russell, Communication Disorders and Sciences

Operation Smile is a worldwide organization that helps treat facial deformities such as cleft lip and palate. Children with craniofacial anomalies may be unable to eat, speak, socialize or smile. In developing nations, parents can't afford the surgeries that children require. Operation Smile provides free surgeries for children and adults born with a cleft lip, cleft palate and other facial deformities, with the help of volunteer medical professionals.

At SUNY Fredonia, we have formed a chapter of the Operation Smile organization and myself and several students are completing an independent study which was conceived to create civic engagement opportunities through the Operations Smile organization. The independent study consists of developing and completing fundraising events to benefit Operation Smile, delivering workshops/continuing education for local Speech-Language Pathologists and participating in a National leadership conference. This poster presentation will describe the independent study goals and objectives and the progress toward project completion.

Poster presentation - 1:30 to 2:00 p.m.

A Study of Preference on Solution Techniques used by 8th Grade Mathematics Students While Solving Systems of Equations

Shane Hood, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores the role of systems of equations in a middle school mathematics classroom. It is hypothesized that students in an eighth grade mathematics classroom will have a preference on the technique they use for solving a system of equations. Additionally, that preference will be decided by which technique was introduced to the student first. Furthermore, students will rely on this technique even when use of the other technique will lead to a more simple process to find the solution.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

The Economic, Social, and Professional Impact of the Volunteer Income Tax Assistance Program

Monica Hopkins, Volunteer and Community Services

Mentor: Dr. Linda Hall, Volunteer and Community Services

This study is designed to examine three major impacts of the Volunteer Income Tax Assistance Program (VITA) on our community. This program has an economic impact as it provides a valuable service at no cost, and identifies the sources of personal income in our community and the tax dollars brought back into the community. VITA affects our student volunteers as it gives them practical experience in tax preparation and may influence their volunteer behavior in the future. The program also has an impact on the Accounting profession as volunteers enter the workforce with significant practical and volunteer experience. This three-pronged study will collect data and identify and summarize the impacts of VITA on our community.

Poster presentation - 3:00 to 3:30 p.m.

A Discovery of Health and Wellness Resources Offered in Chautauqua County

Anna Hourihan, Sociology/Public Health

Mentor: Dr. Linda Dorsten, Sociology/Public Health

My internship with WCA Hospital's health and wellness coordinator, in accordance with sociology 415, seminar in public health, and the Chautauqua County health department, has allowed me to uncover the multiple linkages between my major, communication disorders and sciences, and my minor, public health.

Furthermore, these linkages are discovered as I compile several directories of health and wellness services and resources offered in Chautauqua County. The field of public health focuses on health promotion and prevention. While the field of communication disorders treats a client's present communication deficit, many of the etiologies of communication disorders are preventable. It is with anticipation that these directories will provide and promote physical, mental, and emotional health and well-being to community members in Chautauqua County.

Poster presentation - 1:00 to 1:30 p.m.

The arcGIS system and the Chestnut Wharf

Tyffany Howlett, History

Mentor: Dr. Nancy Hagedorn, History

I am a student participating in Professor Hagedorn's Capstone class, Colonial Philadelphia. The class is about examining the topic of early Philadelphia life in the Revolutionary and Early National periods, from 1765 to 1820. My presentation will be a self-made website that is focused on instructing the viewers on what the arcGIS system is and how to use it with other sources to create theories/conclusions. I hope to successfully link my sources from Colonial Philadelphia, including Constable Returns and the Pennsylvania Gazette, to the arcGIS system and come out with a plausible conclusion about the "unusual" occupations of women during this time. I have been working on collecting information about women in and out of the work force and discovering the effects it had on the community. I hope to help stimulate students' interests on this topic when they review the information and leave them with their own theories.

Computer presentation – 2:00 to 2:30 p.m.

China Project

Kimberly Hughes, Jade McGill, Alexandria Shanahan, Katherine Kosmerl, Communication

Mentor: Dr. Bond Benton, Communication

We took a look at Chinese cultural and what their needs are in a product. For the assignment we needed to make up a product and try and sell it to our target audience. Our product was called "Curl Wow" because most Asians have straight hair, we thought targeting this hair product would be great. Our research, personal interviews, and knowledge on the topic and audience helped in making a successful PR project/campaign to sell to the audience in mind.

Poster presentation - 1:00 to 1:30 p.m.

African Americans Role in the Civil War

Douglas Imperi, History

Mentor: Dr. Jennifer Hildebrand, History

I am exploring the role that African Americans had in the American Civil War. Primarily, the presentation board and accompanying materials will focus on the music of free and enslaved Blacks.

Poster presentation - 2:00 to 2:30 p.m.

Epidemics of Early Philadelphia

Alex Jacques, Jared Nelson, History

Mentor: Dr. Nancy Hagedorn, History

This project should include information on the epidemics that plagued early Philadelphia between the years of 1720-1820. As well as, to include information on the arrival and most impacted of the epidemics.

Computer presentation – 5:30 to 6:00 p.m.

Early Philadelphia

Carol Jemison, History
Mentor: Dr. Nancy Hagedorn, History

The time period this will focus on will be early Philadelphia. During this time taverns were an important part of social and political life. In early Philadelphia women had the same opportunity as men to gain a license for selling alcohol and operating a tavern. What I'd like to present is the presence of females in taverns in the role of owner and operator among the large amount of taverns in early Philadelphia.

Poster presentation - 1:30 to 2:00 p.m.

The Effects of Diet on Muscle Fiber Types in Mice

Jordan Johnson, Max DeNies, Annabelle Kim, Biology
Mentor: Dr. Dr. Scott Medler, Biology

Skeletal muscles are the predominate metabolic engine of organisms. Therefore, muscle composition can impact diseases associated with energy metabolism such as type II diabetes. Evidence from human studies suggests that obesity is associated with a shift from aerobic to anaerobic fiber types. In this study, soleus and plantaris muscles of mice fed a high fat diet were examined to determine if obesity alone causes a shift in muscle fiber types. Individual fibers were collected from each muscle and SDS-PAGE was used to resolve myosin heavy chain isoforms. Immunohistochemical staining was also implemented to visualize fiber type distributions within muscles and their relative metabolic capabilities. We found a significant shift away from type I (slow) fibers towards faster fiber types in soleus muscles of male obese mice. Furthermore, the magnitude of this change was significantly correlated with fat levels. These results provide evidence that obesity alone impacts skeletal muscle physiology.

Poster presentation - 1:00 to 1:30 p.m.

Autism Activism

Alicia Jones, English
Mentor: Mr. Jeff Iovannone, English

I plan to create a piece of art work to promote the awareness of autism. I plan to focus on the unknown of autism in communities and maybe relate it to vaccines. I want to bring awareness to the misunderstandings of autism and mental disability and the many people that get overlooked because of autism.

Presentation – 2:00 to 2:30 p.m.

Puerto Rico Trip

Ashley Judd, Spanish
Mentor: Dr. Vivian Garcia, Spanish

I went on the Puerto Rico study abroad trip this past January. I was there for three weeks and it was amazing! I learned so much about the culture, the people, and much more. I would like to be a part of this exciting event to tell others all about my trip. I would like to have the opportunity to share my experience with others so they will know how great it is. My descriptive story of events may influence others who may be weary and nervous to take the plunge and just go. I would like to tell them it is worth the money spent and the time they will invest in it.

Poster presentation – 1:30 to 2:00 p.m.

Death Certificate Role in Epidemiology

Brittany Kaiser, Sociology/Public Health
Mentor: Dr. Linda Dorsten, Sociology/Public Health

The Chautauqua Department of Health works hard to promote long and healthy lives for all people. There are many different aspects in this department. My role was to work in the Epidemiology section, researching the most common causes of death in the local area. I started with researching recent death certificates in the area and then added them to a database. I then took this data to calculate the most

frequent deaths in Chautauqua County. By finding common trends in death in the surrounding area, further efforts can be made in creating preventable measures in order to promote healthier living. Numerous deaths in this county were due to addictions to alcohol and drugs. Tobacco and alcohol use played a major role in the loss of lives. As a Psychology major, this internship was relevant to me by promoting the importance of mental health in the overall well-being of human life.

Poster presentation - 2:00 to 2:30 p.m.

Death Certificate Analysis

Kendall Kalfas, Sociology

Mentor: Dr. Linda Dorsten, Sociology

My "mind map" portrays my experience with the Chautauqua County Health Department and more specifically the analysis of death certificates. This "mind map" illustrates the connections between my experience in this internship and my major (Biology) and my minor (Public Health).

Upon analyzing death certificates I have encountered many medical conditions that I have had to "google" and further research in order to correctly categorize death certificates. Hoping to pursue a career in medicine, this has taught me not only a vocabulary but that one condition or one lifestyle choice can lead to a host of further complications, particularly death. To categorize and identify preventable diseases and deaths is in the best interest of not only the individual but the public, as progress is made to reduce the prevalence of unnecessary deaths.

Poster presentation - 2:00 to 2:30 p.m.

A study on students' dependency on calculators when dealing with exponents in the mathematics classroom

Mabra Karpie, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research explores students' dependency on calculators particularly with exponents. Recently, students have become technology dependent: cell phones, iPods, even calculators. It is almost as if technology has become a crutch. Examinations are changing to accommodate the calculator; the Common Core allows 7th and 8th grade students to use a calculator on their examinations. It is hypothesized that students rely more on the calculator for mathematical computations than using their personal knowledge and mathematical skills, especially when dealing with exponents. It is also hypothesized that students have little number sense when dealing with exponents larger than 3. It is hypothesized that if students have been taught logarithms, unless they are given a calculator, they will use guess and check to solve for x. Students will also not refer to the directions that say "leave in exponential form" especially when given a calculator.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Mind Map

Joanna Kaufmann, Public Health

Mentor: Dr. Linda Dorsten, Public Health

The Chautauqua County Health Department Community Transformation Grant Safe Street Initiative along with my major (Public Relations) and my minor (Public Health) have helped me develop my "mind map" The safe streets initiative focusses on the safety and appearance of roads. This experience has made me better understand the links between public health and public relations. The streets that were focused on for this particular segment of the initiative surrounded the Silver Creek schools. Many of the streets do not have sidewalks and were no conducive for children walking to school. As a public relations professional to be I see this as a lingering situations that could end in bad publicity if an incident were to occur. This initiative is promoting safer street which will hopefully result in a safer community. After walking the streets and assessing them into a final report I hope it can help officials focus on what needs to be fixed.

Poster presentation - 2:30 to 3:00 p.m.

Retrospective Analysis of Buffalo Sabres

Matthew Kean, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Student Comfort and Equality

Kimberly Keleher, Women's & Gender Studies

Mentor: Mr. Jeff Iovannone, Women's & Gender Studies

For my student Creativity and Research project I will be looking into Fredonia's current movement to allow more comfortable housing for all students. Although this project has been in motion through the help of our devoted students and faculty on campus, I think that my ideas and research will be a positive asset to the cause. Through my research and ideas to help create more awareness on this topic, I hope to help all students feel a sense of comfort and equality on our campus.

Poster presentation - 3:30 to 4:00 p.m.

Delta Phi Epsilon: Volunteer and Community Services

Sara Kobel, English/Volunteer and Community Services

Mentor: Ms. Erin Ackerman, Residence Life/Ms. Joyce Smith, Volunteer and Community Services

The mission of Delta Phi Epsilon Sorority is to develop in women a social consciousness and a commitment to think and act for the greater good. We assure continuous development and achievement for women. Over the course of the year we strive to give back as much as possible. We have three philanthropies, The National Association for Anorexia Nervosa and Associated Disorders (ANAD), The National Cystic Fibrosis foundation, and the Lupus foundation of Rochester; we cater to each organization with annual events. Our service does not stop there; we branch out and pursue any service that comes our way and are always more than willing to expand our outreach. We participate in numerous campus, community, fundraising and philanthropic events. The sisters of Delta Phi Epsilon are very proud of the hard work, and dedication they put into giving back every year, and look forward to each rewarding experience.

Poster presentation - 3:00 to 3:30 p.m.

Racial Profiling

Michael Kowal, History

Mentor: Mr. Jeff Iovannone, History

A presentation on racial profiling in our community, and how it impacts minority life in America.

Poster presentation - 5:00 to 5:30 p.m.

What is a Volcano?

Kelsey Kruse, Geology

Mentor: Ms. Rebecca Leach, Geology

The primary objective of the research is to determine what a volcano is. Through careful examination of Earth's volcanoes, I will compare the different types as well as their locations. Comparisons will further contribute to the classification of what I can define as a volcano. The criteria that I will investigate will include, composition of lava, eruption characteristics, summit elevation, and unique characteristics. Research will reference different observatories as well as the Global Volcanism Program that is operated by the Smithsonian Museum of Natural History and United States Geological Survey. Findings will lead to a better understanding of what exactly a volcano is.

Poster presentation - 1:30 to 2:00 p.m.

Devising Theatre: Creating New Works through a Physical Approach

Rhiannon LaCross, Daniel Astacio, Haley Beauregard, Jacob Bradley, Marisa Caruso, Rachel Fischer, Nicholas Gerwitz, Mary Mazur, Nicholas Nieves, Madison Osgood, David Quinones, Jessica Sabatini, Raphael Santos, Eliza Vann, Theatre and Dance
Mentor: Dr. James Ivey, Theatre and Dance

Creating new theatre is often a perplexing proposition for theatre practitioners. The Devising Theatre class will demonstrate two performance projects that utilize innovative methods of physical theatre styles. Additionally, the students will discuss the gains they have made as performers/creators as they have exercised new techniques of creative exploration.

Performance at 3:30 p.m.

Putting the Public First

Kyle Landers, Public Health
Mentor: Dr. Linda Dorsten, Public Health

Public Relations is the management of the flow of information between an organization and the public. Public Health is defined as promotion of health through organized efforts to a help reach a desired public. Public is the keyword in both concepts. Without publics, these concepts would not exist. I recently had the opportunity to work with the Chautauqua County's Community Transformation Grant. My focus was conducting "Walk-ability Assessments" and surveys in the town of Silver Creek, NY. The purpose was to study the safety and structure of the streets surrounding the school. The streets can be very unsafe. With accurate data, the streets can be transformed to better suite the public and make it safe for them to live on. I have the chance to not only protect the public, but to make sure the Department of Health is being seen as a constant support for public safety and trust.

Poster presentation - 3:30 to 4:00 p.m.

Asymmetrical Hybrid Fibers and Myosin Heavy Chain Isoforms in Mouse Soleus Muscles

Lauren Larson, Biology
Mentor: Dr. Scott Medler, Biology

The smallest unit of contractile force in the muscle is the myosin heavy chains (MHCs) which occur in four isotopes. The fastest is type 2B, followed by 2X, 2A, then type 1; the slowest. It's been shown by previous research that a fiber in the body may change along its length, from one isoform to another; a phenomena termed the asymmetrical hybrid fiber. This contradicts the prior belief that a muscle fiber's conformation is static along its length, although it seems physiologically unsound to have portions of a muscle contracting faster than others. We've studied fibers that were previously harvested and frozen. After developing a way to dissect out individual fibers, we labeled them with monoclonal antibodies specific to each MHC and found that the labeling patterns confirmed a change in labeling along the length of the fibers with the best representation occurring within the soleus muscle.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Public Health Senior Seminar

Joscelyn Lasky, Sociology
Mentor: Dr. Linda Dorsten, Sociology

The New York State Bicycling Coalition (NYBC) works to keep everyone across New York State aware of the health benefits of bicycle riding, as well as lobbying for legislation that provides New Yorkers with safe riding paths and parks. Awareness is a large aspect of public health and my major, public relations. Through the successful promotion of health messages from NYBC, people all across NYS can learn how to improve their health. Bicycle riding provides countless health benefits such as improving cardiovascular fitness, muscle tone, and overall heart health. NYBC also provides communities with free workshops such as "Complete Streets", which provides towns with information on how to get their streets fixed and also how to contact legislators for aid. Organizations like NYBC need to get their messages out to the public, so people all across the nation can learn how to improve their lives.

Poster presentation - 1:30 to 2:00 p.m.

Shuffling Along

Gabrielle Leo, History

Mentor: Dr. Jennifer Hildebrand, History

The impact of the first successful all African American Broadway show "Shuffle Along" in the 1920's. How it was the gateway for so much more and a big part in recognizing African Americans as much more than their stereotypes.

Poster presentation – 3:30 to 4:00 p.m.

Visualization of Sqd-grk Interactions in Live Drosophila Oocytes Using Tri-molecular Fluorescence Complementation (TriFC)

Nancy Levensailor, Biology

Mentor: Dr. Scott Ferguson, Biology

Gurken protein must be translated at the dorsal anterior 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 this desired location. To better understand this important pathway in development, localization of the Sqd-grk complex was visualized using a novel approach: Trimolecular Fluorescence Complementation. Fluorescent Venus protein was halved, with one domain incorporated into a construct containing MCP viral protein, which binds stem loops engineered into grk mRNA, and the second containing sqd. After mating transgenic stocks containing these constructs, fluorescence appeared in an anterior cortical ring and ring canals via the reconstitution of Venus upon juxtaposition of its domains, revealing these as Sqd-grk interaction sites. However, auto-fluorescence contamination by egg yolk was observed. To reduce this interfering background, this approach will be repeated using RFP, which has a different excitation wavelength than yolk.

Poster presentation - 2:30 to 3:00 p.m.

Volunteering in the Community

Amy Lewis, Volunteer and Community Service

Mentor: Mr. Chris Taverna, Volunteer and Community Service; Ms. Joyce Smith, Volunteer and Community Services

Alpha Phi Omega is a national coed service fraternity. The chapter at SUNY Fredonia last semester we did over 700 hours of community service collectively. We do a variety of service projects over each semester to benefit the local community. We would like to have the chance to share this experience with the campus.

Poster presentation – 1:30 to 2:00 p.m.

Disk and System Performance with Bonnie++ and Nbench

Mark Mackey, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

For this project I will use the benchmark software tools Bonnie++ and Nbench to test and compare disk and system performance of Linux, various Windows Operating Systems, and IOS Operating Systems. It is possible to use Nbench on Android and I will attempt that as well. The results will be compiled and show the differences between the different operating systems as far as CPU speed, L1 and L2 cache speeds, main memory speed, dis read and write speed, disk I/O, file creation, reading and writing delays using the same parameters on all operating systems.

Poster presentation - 5:00 to 5:30 p.m.

The Stigma Associated with Chronic Illness

Carolyn Mahany, Allysa Dupont, Olivia Merisola, Psychology

Mentor: Dr. Jack Croxton, Psychology

Due to the immense stigma faced by people living with chronic illness, this study was conducted to educate and reduce the amount of social isolation experienced by such individuals. This study measured individuals' perceptions of persons with chronic illness. Specifically: genital herpes, epilepsy and chronic migraines. We tested participants reactions based on given information about a fictitious target person, using a social distance assessment. It was predicted and found that there was an interaction between gender and target illness. There were also main effects for both variables. Overall, people living with genital herpes were perceived most negatively, and those with epilepsy were perceived least negatively. The implications of this study will impact previous and future research done in the fields of social and health psychology. Further results and their implications will be discussed at the conference.

Poster presentation - 1:30 to 2:00 p.m.

CASSI: Development of an Efficient Classroom Sorting Heuristic

John Malayny, Computer Science

Mentor: Mr. Robert Olson, Computer Science

Computing seating arrangements of students to discourage bullying is a cleverly disguised traveling salesman problem. The traveling salesman problem is a classical NP Hard problem for which no efficient algorithm exists. Heuristics developed for this problem can be compared by the development of an efficiency metric that takes into account both the efficiency of the heuristic as well as how well the heuristic solves this problem. One can obtain a good solution by using badsort, a heuristic that relies on simple geometry and graphical pressure to sort students in both a meaningful and efficient manner. By using the classroom's geometry and the pressure of bullies, it becomes very apparent which seats bullies should occupy for classrooms to function as harmoniously as possible.

Poster presentation - 2:00 to 2:30 p.m.

Shortest Path Algorithms for Robotic AI

Erdinc Masat, Computer and Information Sciences

Mentor: Dr. Ziya Arnavut, Computer and Information Sciences

The Traveling Salesman Problem (TSP) is a well-known problem which has wide applicability in a variety of practical fields. A salesman must make a closed complete tour of a given number of cities, then return his start location, where all cities are connected by roads. The question is deceptively easy to express: how to calculate the shortest possible route. However, a time efficient solution could never be found for the problem over the years, although the huge effort on finding either an exact or an approximate solution. This thesis surveys some of widely accepted TSP algorithms developed in the past, compare and contrast them and then establishes the connection between TSP and its application areas, concentrated on mobile devices and Robotic AI.

Poster presentation - 1:00 to 1:30 p.m.

Mathematical Sciences Students

Lessons with Potential from Teachers with Potential

Wyatt Anderson, Abigail Brennan, Matthew Burnell, Elizabeth Childers, Katherine Clark, Suzanne Constantinou, Gina Falcone, Colleen Gilbert, Sierra Haney-Rolf, Tara Hudson, Alex Jo, Matthew Johnston, Kristen Joseph, Alexandra Koch, Rebecca Laks, Sara Maiorana, Ashley Melinski, David Newcomb, Renee Perreaud, Gabrielle Rodriguez, Elizabeth Schake, Angelo Sciandra, Matthew Sitzman, Collin Thompson, Shannon Tydings, Danielle Verhague, Glen Waterman, Kaitlyn Whitney, Tamra Yeager, Mathematical Sciences

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

From fractions to calculus (and plenty in between) review a compilation of poster presentations of innovative lesson plans and projects developed by SUNY Fredonia mathematics education seniors. Research was initially presented at the annual Association of Mathematics Teachers of New York State (AMTNYS) in Rye, New York.

Poster presentation - 1:30 to 2:00 p.m.

B.R.E.A.K-ing Down the data

Mason Maynard, Social Work

Mentor: Dr. Rolanda Ward, Social Work

The Behavioral Re-Education Access for Kids (B.R.E.A.K.) is a 5 level, 130 day program. The goal of the program is to re-educate client behaviors that have hindered student's performance in traditional classrooms. Clients and the B.R.E.A.K staff collaboratively develop behavioral goals for each student. B.R.E.A.K staff monitors each client's progress. Client and staff review the behavior outcomes for each day. Finally the points are adjusted and averaged. The final adjusted points and behavioral outcome data are recorded on master data charts. These final charts will be collected and analyzed. The data will be collapsed into two categories, "Yes Client made their day" or "No Client did not make their day". In the 2012-2013 school year the B.R.E.A.K program underwent multiple staff changes. This presentation will showcase the findings of analyzed behavioral outcome data collected in the B.R.E.A.K program for the 2011-2012 and 2012-2013 academic school years.

Poster presentation - 5:00 to 5:30 p.m.

Retrospective Analysis of KFC/Taco Bell

Sean McCarthy, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Women in the Weight Room

Jessica McClean, History

Mentor: Mr. Jeff Iovannone, History

My work is going to look at why women in the weight room are looked at differently when they are lifting weights, and why more women don't lift.

Poster presentation - 2:00 to 2:30 p.m.

Walnut Ward of Early Philadelphia

Meghan McEvoy, History

Mentor: Dr. Nancy Hagedorn, History

I will be doing an occupational analysis of people living in the Walnut Ward of Early Philadelphia (between late 1700s and early 1800s). Specifically, I will be looking into things like what jobs people in this ward held, how long they lived in the ward and how many children they had (to demonstrate economic stability), and questions about the house/lot they lived on (How big was it? Did they own the house? Did they own the lot?...etc.)

Poster presentation - 1:00 to 1:30 p.m.

1793 Yellow Fever

Robert McGinnis, History

Mentor: Dr. Nancy Hagedorn, History

My topic is how the 1793 Yellow Fever was handled by Philadelphia. I will be comparing Philadelphia to other colonial cities that had similar epidemics around the similar time period and try to figure out why Philadelphia was repeatedly dealing with Yellow Fever epidemics.

Poster presentation - 1:00 to 1:30 p.m.

Probing for IRES Function in the gurken 5' UTR

Jacob Merle, Biology

Mentor: Dr. Scott Ferguson, Biology

The *Drosophila* *gurken* (*grk*) gene is required to establish the anterior/posterior and dorsal/ventral axes of the egg. *grk* translation is tightly regulated and many signaling pathways influence this process. When insulin levels are high such as when food is readily available, *grk* is translated using a common mechanism that requires recognition of the 7-methylguanosine cap at the 5' end of the RNA. An alternative mechanism of translation can occur through a secondary structure in the 5' UTR of the mRNA called an Internal Ribosomal Entry Site (IRES). The utility of the IRES is that it allows for translation of important mRNA's even in the absence of canonical cap-dependent translation factors. It was discovered in our lab that Insulin/Insulin-like Signaling (IIS) mutations or inhibition of TOR by rapamycin result in increased *grk* translation in spindle-class mutants. Based on these data, we hypothesize that the *grk* 5' UTR contains an IRES.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Law and Order: Colonial Philadelphia Unit

Samuel Miller, History

Mentor: Dr. Nancy Hagedorn, History

This poster will show how law and order was upheld in Colonial America, specifically in Colonial Philadelphia. It will include various practices of punishment that were used in the Colonial, Revolutionary and Early American eras in Philadelphia. Also included will be the role of the constables in each era and common issues these men faced on patrol through out early American history.

Poster presentation - 2:30 to 3:00 p.m.

African Americans and the Drum

Maya Mills, History

Mentor: Dr. Jennifer Hildebrand, History

Slavery is an institution that has been around for centuries and began in America in 1619 in Virginia. Slavery was abolished in 1804 however continued legally for another 20 years. During these hard long years the slaves had to find a way to endure and music offered an escape. The drums were an important aspect of music in the culture and my goal is to explore the origins of the drum and how slaves used it not only to escape their suffering but also how they used it to speak to one another.

Poster presentation - 5:00 to 5:30 p.m.

Philadelphia and Yellow Fever Epidemic

Carl Monkhouse IV, History

Mentor: Dr. Nancy Hagedorn, History

The impact on Philadelphia of the yellow fever epidemic of 1793. Also the programs and actions made by government officials in order to quell and contain the epidemic and why these measures were used. An examination of the government programs and measures used to prevent and contain the yellow fever epidemic of 1793 in Philadelphia. The reasons behind these measures being utilized will also be evaluated.

Poster presentation - 2:00 to 2:30 p.m.

Epsilon Eta Chapter of Delta Phi Epsilon

Angela Montaldi, Volunteer and Community Services

Mentor: Ms. Joyce Smith, Volunteer and Community Services

The members of the Epsilon Eta chapter of Delta Phi Epsilon work together to put in more than 500 hours of community service each year. They work to make the campus community and the village of Fredonia a better place. Their philanthropies include Anorexia Nervosa and Associated Disorders, The National Cystic Fibrosis Foundation, and The Lupus Foundation of Rochester. In the various community outreach events and these philanthropies, they spread awareness and give opportunities to many. They won the Student Organization Excellence Award in Dedication to Volunteer Services on campus last year and

plan to do so again this year. This award was received due to accumulating the most volunteer hours throughout the year.

Poster presentation - 1:00 to 1:30 p.m.

A Study in Computational Estimation

Jerica Morgan, Mathematical Sciences

Mentor: Dr. Keary Howard, Mathematical Sciences

This research examines students' capability to perform computational estimations as well as strategies used in doing so. It is important that everyone, not just students, have the knowledge and ability to perform computational estimations. It is a lifelong skill that is used on a daily basis. In the core curriculum today, students are taught to estimate masses, areas, volumes, lengths, etc. It is not seen as an important skill to be able to perform computational estimations, but rather, compute exact solutions. It is unrealistic to expect people to carry calculators making exact computations while shopping or working, so why is computational estimation not more of a focus in the mathematics curriculum? While researching this topic, most research was done on integer operation estimation, but little or none was done on more complex estimations. This brings us to the question: What are effective strategies taught to students to compute complex estimations?

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Diabetes Awareness Activism Project

Elizabeth Mothersell, History

Mentor: Mr. Jeff Iovannone, History

For my scholar-activism project in History of Authority with Professor Iovannone I would like to bring awareness to the disease diabetes. This disease affects millions of people and still no cure has been found. I wanted to do something dealing with health and science and I thought this was an issue that isn't heard about much at Fredonia. Diabetes affects people at all ages especially young adults both men and women. For my course of action I would like to create an event involving various activities to raise money and awareness, such as having a potential nutritionist come to visit explaining healthy food choices, a trainer to help give tips on exercise, and a community involved walk/run. I am interested in this issue because a close friend of mine has been diagnosed and I think since this disease can affect all ages it is an important issue to address.

Poster presentation – 3:00 to 3:30 p.m.

Service-Learning opportunity with Dog Holiday kennel and shelter

Hannah Mulligan, English

Mentor: Dr. Kirstin Hanley, English

At the OSCAR Expo, I plan to create a tri-fold poster to share the experience of my work with Dog Holiday. The poster will exhibit numerous examples of the written work I provided the agency: professional documentation, formal letters to future affiliates, written adoption contracts and corresponding responses, etc.) A section of the poster will also be dedicated to the sheltered animals I've worked with, which will demonstrate the advertising skills I've acquired through creating ads for Dog Holiday as well as promoting the animals with the hope to find forever homes for the dogs.

Poster presentation - 1:30 to 2:00 p.m.

Freshman 15

Chris Murray, History

Mentor: Mr. Jeff Iovannone, History

My proposal for this paper is that Fredonia College implements a required physical education class for first year students, unless the student is part of an NCAA recognized team. My reasoning behind this is going into college you always hear about the "freshman 15" meaning that within the first year a student is on their own, away from home, their eating habits change for the worse and they tend to gain weight which could continue for years and affect their overall health. I believe if you get students into the habit of

doing physical activity they will become accustomed to it and find time in their schedule for it and therefore maintain a healthier life style.

Poster presentation - 2:30 to 3:00 p.m.

Gay Art

Erica Nelson, History/Women's and Gender Studies

Mentor: Mr. Jeff Iovannone, History/Women's and Gender Studies

I am researching the gay and transgendered art on college campuses. I'll be diving into the past and present of it being viewed and accepted on campuses. My activism would be to bring a gay/transgender artist to Fredonia and have them showcase their work and perhaps talk to students. An artist that's been on my radar for a while now is Brian Kenny. He is a gay artist, living in New York City, who pushes all the barriers of art. Since I've been here we've never had an openly gay/transgender artist come and I think having him come to Fredonia would really open a lot of people's minds to "gay art".

Poster presentation - 5:00 to 5:30 p.m.

Yellow Fever and Other Outbreaks of Disease in Colonial Philadelphia

Jared Nelson, Alexander Jacques, History

Mentor: Dr. Nancy Hagedorn, History

For my presentation I will explore the yellow fever outbreak in Colonial Philadelphia, how it affected the upper and lower classes differently.

Poster presentation – 5:00 to 5:30 p.m.

Influential Music of the Black Power Movement

Pilar Nelson, History

Mentor: Dr. Jennifer Hildebrand, History

For my topic proposal, I will be examining the role that music played in African American history throughout the Black Power Movement Era between 1960s and 1970s. (It will be represented in poster form)

Poster presentation - 3:00 to 3:30 p.m.

Students Against Destructive Decisions

Briana Noto, Ashley Bucholtz, Kayla Wojciechowski, Business Administration

Mentor: Dr. Susan McNamara, Business Administration

We are going to bring the tri-fold presentation we have created explaining what our Students Against Destructive Decisions group is, activities we partake in, how to join our team- and show those coming to the expo different ways our group works with the community to create positive decision making. Overall, this creates a better more sustainable community. We are also going to bring a "Alcohol Myth Busters" game we created to teach local high school students about appropriate alcohol education; again to show the involvement our group has with our community.

Poster presentation – 2:30 to 3:00 p.m.

Food For Thought

Courtney O'Donnell, Joan Welch, Women's & Gender Studies

Mentor: Mr. Jeff Iovannone, Women's & Gender Studies

Our proposal for the Oscar Expo is going to be about the healthy options that our dining halls should be serving. On the SUNY Fredonia campus, much of the food is fried and processed. Our project will propose new menus and suggestions for new items and foods that should be put on a dining hall menu.

Computer presentation – 5:00 to 5:30 p.m.

The Effects of Group Dynamics and Persuasion on Student Attitude Change

Michelle Olesko, Jillian Burgess, Shaun Zmuda, Psychology

Mentor: Dr. Jennifer Dyck, Psychology

The purpose of our study is to see how being in a group affects individual's attitude change, either positively or negatively towards a particular controversial topic, compared to when they are alone. The controversial topic that is being used is gay marriage. Participants are randomly assigned to one of the following different conditions: viewing a video clip that is against gay marriage, viewing a video clip that is for gay marriage, or viewing a neutral clip. Participants will view the video clips either in a small group, or alone. They will then complete survey questions about their feelings towards different stereotypes. We will then determine why being in a group may affect their attitude to be more positive towards gay marriage versus when they are alone.

Poster presentation - 1:00 to 1:30 p.m.

French Immigration Politics

Hannah Orsino, Political Science

Mentor: Dr. Alexander Caviedes, Political Science

In an independent study instructed by Dr. Caviedes, I researched French media portrayal of immigration and related my findings to French public opinion of immigration. In order to collect data, I translated French newspaper articles within the dates of January 2011 and December of 2012 that pertained to immigration policy, criticism, statistics, etc. I then coded each article according to its theme and content. My findings were then compared to immigration history within France and public opinion polls on the subject. There is a strong correlation between the media portrayal and public opinion of immigration in France. In other words, France's media portrayal of immigration has affected the way French society views immigration. My research will be displayed on poster with graphs and a sample of my spreadsheet in which I recorded my coding.

Poster presentation - 1:30 to 2:00 p.m.

Retrospective Analysis of Brockport Country Club

Taylor Page, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Family Roles and Prospective Career Choice

Lynsay Paiko, Eric Ellison, Carmina Georgescu, Psychology

Mentor: Dr. Suthakaran Veerasamy, Psychology

The purpose of this study is to explore how the familial roles of students interested in the counseling profession are different from students interested in cognitive psychology. We will utilize a qualitative approach, using the Consensual Qualitative Research design (CQR: Hill et al., 2005), to examine the roles played by the participants in their respective families. Sixteen undergraduate students who are interested in either majoring in counseling psychology or cognitive psychology will be interviewed as a group in two separate sessions (8 counseling or cognitive students in each group). A series of questions will be posed to each group and the responses of all the participants in each session will be audio-taped and transcribed. We are planning to use general systems theory to inductively derive differences in familial roles between the counseling and cognitive students from the qualitative data.

Poster presentation - 3:00 to 3:30 p.m.

Examining the Effects of Reading Format on Memory Retention

Lynsay Paiko, Keith Stam, Allysa Dupont, Psychology

Mentor: Dr. Jennifer Dyck, Psychology

The current study involves how one's ability to remember what was read is affected by different types of reading samples. Subjects will read two different passages, one fiction and one non-fiction, on either a computer screen or on paper. They will then answer two recall and recognition tests, one after each sample is read, which include half multiple choice and half fill-in-the blank questions. Previous research shows that many students prefer assignments and materials physically in print, rather than on screen (Liu, 2005). We hypothesize that subjects will score higher on the recall tests after reading the passages on print rather than on a computer screen. As stated in previous research, memory retention was shown to be greater for fiction texts than non-fiction texts (Clark, 2007). As a result, we hypothesize that subjects will exhibit higher recall and retention scores after reading the fictional reading sample than the nonfictional reading sample.

Poster presentation - 2:30 to 3:00 p.m.

Leadership Perceptions as a Function of Gender, Attractiveness, Experience, and Gender Role

Leah Palmer, Psychology

Mentor: Dr. Jack Croxton, Psychology

Leadership roles are essential in today's society, not only in organizations, but throughout various domains. It is important to determine what factors may influence perceptions of individuals in leadership positions. Two studies were designed to determine the effect of gender, attractiveness, past experience, and the stereotypical gender role on the perceptions of a leader. Surprisingly, more traits associated with leadership were attributed to females than to males. Attractiveness had the largest effect in these studies, where attractiveness was found to be advantageous, particularly for the female targets. Being selected for the leadership program was advantageous for females and disadvantageous for males. Gender role typically affected perceptions of the caring characteristics, such as showing kindness and warmth, where targets in a volunteer role were seen as more likely to possess these traits than those in an entrepreneur role. Future research should utilize a more diverse sample to increase external validity.

Poster presentation - 2:30 to 3:00 p.m.

An Exploration of Ordinal Logistic Regression Models to Predict Leadership Perceptions

Leah Palmer, Mathematical Sciences

Mentor: Dr. Nancy Boynton, Mathematical Sciences

Using the data from a previous study that was created to determine leadership perceptions based on target sex, attractiveness, subject sex, and stereotypical gender roles, an investigation was done utilizing ordinal logistic regression models to predict overall perceptions of leadership. Data from this study was coded using the 5-point Likert scale and then various models were created to determine how each variable predicts leadership perceptions, as well as a combined and best-fit model.

Poster presentation - 2:00 to 2:30 p.m.

Developing Flight Routing Module for Distributed Flight Tracker

Richard Parenti, Jeffrey Lewandowski, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

This project develops a flight routing module. There are already four distributed ground servers, one central server and a plane server already in place running on identical versions on Linux. The routing module will identify intermediate airports that can receive flight data with a radio link.

Computer presentation – 1:30 to 2:00 p.m.

Distributed BACI Race Simulation

Richard Parenti, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

Display the synchronization and coordination features of a Distributed BACI system over a network implementation. This demonstration will emulate a vehicle race with each vehicle a node in this distributed system.

Computer presentation – 1:00 to 1:30 p.m.

The Effect of Jazz on the Relationship between Blacks and Whites

Kira Parks, History

Mentor: Dr. Jennifer Hildebrand, History

I intend to explore how the jazz music of African Americans influenced white culture and in turn may have been a vehicle in improving black/white relations during the Jazz Age.

Poster presentation - 3:00 to 3:30 p.m.

The Cakery

Chelsea Patterson, Kim Valvo, Courtney Saunders, Business Administration

Mentor: Dr. Mojtaba Seyedian, Business Administration

The Cakery is a small sophisticated bakery offering a variety of baked goods to the Western New York area. Our group, Innovative Consulting, has chosen to assist The Cakery owner with implementing new marketing strategies to further grow cliental and a positive reputation. The main aim of the consulting project is to give The Cakery a chance to broaden their brand awareness through marketing. Before Innovative Consulting began consulting The Cakery, The Cakery had a weak brochure, minimal response on Facebook, and a generic business card. Our paper also looked into new recommendations to help further the business.

Poster presentation - 2:00 to 2:30 p.m.

The Economics of Affordable Care Act, 2010

Chelsea Patterson, Economics

Mentor: Dr. Amar Parai, Economics

With new Affordable Care Act being enacted over the next few years in the United States, there are major changes both to benefits and costs of current health care laws. Changes in the laws come as a great benefit to many citizens especially those who have not been addressed in previous health care laws due to age, pre-existing conditions, and abuse by health insurance companies. This research also discusses the state's decisions to apply new health care laws within or opt-out with required taxes. In all laws there are limitations and needs for amendments to better serve the citizens. When looking into a law that would require every citizen to act, whether it be to purchase health care or to pay tax, it needs to address all issues and make appropriate changes when necessary. Overall the Affordable Care Act benefits will exceed the estimated costs.

Poster presentation - 1:30 to 2:00 p.m.

Effects of Bacterial Infection on Neochloris

Alexander Payne, Biology

Mentor: Dr. Frederick Harrington, Biology

Lipids derived from green algae have great potential to be useful as new fuel sources that are more efficient and affordable than some classic fuel sources used today. Thus research on lipids and fatty acids produced by different species of green algae has proven to be particularly useful. Removing lipids from colonies of algae can be difficult and result in low yields, and its possible bacteria could be used to efficiently break open the cells. A different issue is that bacterial infection can destroy entire colonies of green algae. Thus to learn more about the positive and negative implications of bacteria/algae interactions, we screened for a species that can grow on the algae, Neochloris oleoabundans. An individual species of bacteria has been successfully obtained and isolated. The identification of this species as well as its impact on algae colonies is currently under investigation.

Poster presentation - 1:30 to 2:00 p.m.

Tea Experiment

Nicole Pearson, Heather Pandich, Danielle Oakes , Physics

Mentor: Dr. Justin Conroy, Physics

The purpose of our experiment is to find out whether or not hot water allows tea to seep faster and more effectively, and if so, to what degree. We will experiment with a variety of different types of tea, as well as different temperatures of water.

Poster presentation – 1:30 to 2:00 p.m.

Retrospective Analysis of Mighty Taco

Emily Pease, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

A Manipulation of Stress and Dog Presence on Heart Rate and Working Memory

Alexis Perez, Tina Schwartzmeyer, Amy Fisk, Samantha Galloway, Marcus Stendahl, Psychology

Mentor: Dr. Nancy Gee, Psychology

Research in the area of Human-Animal Interaction has demonstrated that pet ownership is related to reduced physiological response to stress, risk for coronary heart disease, and increased survival rate following a heart attack. Most of this previous research on the physiological impact of pets has focused on the effect of pet ownership or pet presence. The current study examines the impact of touching a dog on heart rate (HR), while the stress level of the situation was varied. Participants (ages 18-25) wore a HR monitor while they listened to a story (low stress), performed a working memory test to the point of failure three times (increased stress), and then listened to a story again (low stress). This manipulation was repeated for each participant under three different conditions: Touching a therapy dog, touching a stuffed dog, and touching a human. Heart rate and working memory data will be presented and discussed.

Poster presentation - 1:30 to 2:00 p.m.

Tempering with Chocolates

Jennifer Pfeffer, Tiffany Place, Physics

Mentor: Dr. Justin Conroy, Physics

Our project involves melting/tempering different varieties of chocolates at different temperatures. We will experiment with white, dark, and milk chocolate and will melt and temper these chocolates at various temperatures to see how temperature affect appearance, taste, and shape.

Poster presentation - 3:30 to 4:00 p.m.

Retrospective Analysis of Deerfield Country Club

Gabby Pietropaolo, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Trail's End Camp Varsity Program Director Staff Manual

Kathryn Pilgrim, Curriculum and Instruction

Mentor: Dr. Janiel Rey, Curriculum and Instruction

Summer camps provide valuable learning experiences for eleven million children and 1.2 million staff members every summer. Significant benefits for those at well-designed camps exist and begin with staff training. A staff manual geared toward the Non-Bunk Staff, who supervise the counselors and program areas, in particular the Varsity Program Director, starts communication before the staff member arrives at camp. Trail's End Camp is a full season summer camp with the Varsity program designed to build leadership opportunities and added choices for the oldest 134 campers ages 13-16 during their final three years at camp. The author designed the lesson plans and wrote the accompanying manual after working

at Trail's End Camp for the summer to educate and provide a resource for future staff members in supervisory positions.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Francisco Oller & My Experience In His Homeland

Anjolie Plante, Modern Languages

Mentor: Dr. Vivian Garcia, Modern Languages

Francisco Oller, a well-known Puerto Rican artist whose paintings focused on the island's natural beauty and also on its social conflicts. Oller was born in 1833 in San Juan, one of the beautiful cities that I was so fortunate to explore on my very own journey in Puerto Rico. As Francisco Oller got further along in his career he soon developed a passion for the Impressionism movement, making him one of the very few impressionistic artists of his homeland. He traveled back and forth to Europe for schooling and later for pleasure, and then incorporated different skills and techniques he acquired from different countries to create his very own style. I also can say that I have acquired different skills and gained knowledge on a different culture in my phenomenal experience that now, has forever impacted who I am.

Poster presentation - 1:00 to 1:30 p.m.

SUNY MEU

John Plevel, Maxwell Radley, Alexander Stone, Daniel Palm, Political Science

Mentor: Dr. Alexander Caviedes, Political Science

The SUNY Model European Union simulation is an annual conference where students from the network of SUNY universities work with students from numerous European universities to create an interactive and engaging simulation of the European Union. This years conference will be held at the SUNY center in midtown Manhattan. Here we the students will assume roles such as Head of Government, Foreign Affairs minister, Economics and Finance Minister, and Coreper; discussing student submitted topics that relate to current dilemmas that the real European Union is or could soon be discussing/voting on. As well their will be a student led press core providing a daily newspaper as well as video interviews. At the end of the conference all proposals will attempt to be passed through the Head of Governments meetings for final approval. This presentation is a record of what we learned and our experiences during the conference.

Poster presentation – 2:30 to 3:00 p.m.

Philadelphia: The Culmination of American Political Idealism

John Plevel, History

Mentor: Dr. Nancy Hagedorn, History

Though cities such as Boston and New York served more of a strategic purpose during the Revolutionary War, the city of Philadelphia served as the culmination of American Political Idealism. It was a city both won and lost without firing a shot, it stood as the political and ideological capital of the newly formed United States.

Poster presentation - 3:00 to 3:30 p.m.

Neurological and Cognitive Disabilities

Darren Pope, English

Mentor: Mr. Jeff Iovannone, English

This project would be intended to raise awareness of those that have a neurological and cognitive disabilities. My research would take on the task of educating on individuals with disabilities. My proposal is to try and develop a plan for a group that devotes itself to connecting individuals with disabilities with individuals in the school. I intend to use sources from Heritage Education Program, a school with disabilities, as well as the disabilities office on campus. My proposal will focus on the awareness of neurological and cognitive disabilities that the student population of SUNY Fredonia may not be educated about. I plan on using sources from the Office of Disabilities in Fredonia as well as some outside sources such as, Heritage Centers Education Program, a school for children with disabilities, to increase this

awareness. I will also try and propose a program that creates allies between the students and those affected by the neurological and cognitive disabilities in which my research will be aimed at.

Poster presentation - 2:00 to 2:30 p.m.

STANYS

William Pszonak, Adam Rivera, Curriculum and Instruction

Mentor: Dr. Kathleen Lesniak, Curriculum and Instruction

At the annual STANYS conference in Rochester, NY members of the M.A.T. program had the opportunity to sit in on a lecture presenting the next generation of science standards. The standards focus on incorporation of multiple disciplines within the science classroom. The multi-subject approach leads to students who are well rounded learners in all subjects, and sets them up for success outside of the classroom.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

The Trident

Kelsey Radomski, English

Mentor: Mr. Dustin Parsons, English

Presentation of the student literary magazine, The Trident. Also presenting anthology projects.

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

Using Church Music to Identify Theological Differences in Antebellum America

Kiri Ramos, History

Mentor: Dr. Jennifer Hildebrand, History

Spirituals and hymns help to reveal the differences between Christianity as practiced by African Americans and whites in the antebellum United States. As African Americans adapted Christianity to fit their own religious needs, the music became a primary source documenting their attempts to make white religious traditions fit the reality that many blacks experienced, from slavery in the South to prejudice in the North. The types of Biblical stories and lessons presented differ significantly between black Spirituals and white hymns.

Poster presentation - 3:30 to 4:00 p.m.

Medicalization of women's bodies and identities

Meghan Ras, History/English

Mentor: Mr. Jeff Iovannone, History/English

I am proposing to create a class for SUNY Fredonia centered around the medicalization of women's bodies and identities- from a psychology perspective. I would like to combine medicine and psychology and discuss the ways women have been medicalized in terms of menstruation, birth, menopause, sex, and mental health. The research and activism of the project support the idea that this class would be beneficiary as a class at Fredonia.

Poster presentation - 2:30 to 3:00 p.m.

African influences on Jazz and Tango dance

Antonio Regulier, History

Mentor: Dr. Dr. Jennifer Hildebrand, History

This paper examines how African dance, specifically Kamabeka dance was influential in the development of jazz dance in America and tango dance in Latin America. In addition, the paper analyzes how the music which the dancers perform to uses traditional African rhythms, notes, beats, and sounds. The emergence of the African culture in dance and music has certainly left its trademark in the New World and is worthy of exploration.

Poster presentation - 5:00 to 5:30 p.m.

Retrospective Analysis of The Resource Center

Deseree Richter, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Land use Management at Jamestown Audubon Society

Alan Riddle, Jeremy Eddy, Geology

Mentor: Dr. Michael Wilson, Geology

The Jamestown Audubon Society (JAS) is a nonprofit organization dedicated to natural sciences education and to the preservation of key wetland areas in Chautauqua County. JAS is currently fostering a land use management plan focused on identifying threats and stresses on the local environment and developing strategies that will mitigate these threats. Some identified threats to preservation include the invasion of non-native species, climate change, and the natural tendency for the landscape to change over time. By surveying the physical habitats at Jamestown Audubon Society and looking for diversity within its landscape, measures can be taken to identify and manage its geodiversity, which will lead to a more permanent, natural "preservation" of the area. The results of these surveys can be compiled into a Geographic Information System (GIS) map showing multiple data layers, like topography, soil composition, and habitats of local flora and fauna.

Poster presentation - 1:00 to 1:30 p.m.

Retrospective Analysis of Cancer Council NSW

Rachel Ring, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Julia de Burgos

Jane Robertson, Modern Languages and Literature

Mentor: Dr. Vivian Garcia, Modern Languages and Literature

Julia de Burgos was an influential poet from Puerto Rico who lived in the first half of the eighteenth century. She came from a poor family in an impoverished part of Puerto Rico, and is now one of the most well-known female figures there. She began her career as a school teacher, but soon left the post to receive a higher education and pursue her political interests. Julia de Burgos was an active participant in the struggle for women's rights and an advocate of the Puerto Rican independence movement. Her work has inspired musicians, artists, and political activists and her influences can be seen throughout San Juan. Her poetry is filled with themes of love, social injustices, death, and the search for identity. De Burgos suffered from depression and alcoholism, which ultimately led to her self-destruction. She died alone on a street in New York City.

Poster presentation - 1:00 to 1:30 p.m.

Winter Wonderland Workshop

Hannah Roccisano, Theatre and Dance

Mentor: Dr. Ted Sharon, Theatre and Dance

I went to the Winter Wonderland stage combat Workshop over winter break. I was given funding from the school to attend. I would like to bring some weapons with me, and answer any questions about what I learned or combat in general. I would like to have space for the poster, and a mat (I think I can provide one if there isn't one available) to demonstrate during the expo, as well as to have a 15 minute demonstration for a presentation of some other skills.

Poster presentation – 2:30 to 3:00 p.m.

The effect of pH-stressed carbonic anhydrase α CAH3 on triacylglycerol storage in *Chlamydomonas reinhardtii*

Ramses Rodriguez, Biology

Mentor: Dr. Fredrick Harrington, Biology

There are promising implications for the study of *Chlamydomonas reinhardtii* metabolism. In the process of carbohydrate synthesis, *C. reinhardtii* consumes atmospheric carbon dioxide. This algae, thus, is a candidate for green house gas phytoremediation. In nitrogen-poor conditions, lipid storage has been found to increase. This makes *C. reinhardtii* a candidate source of fatty acid-derived microalga biodiesel. This research explores *C. reinhardtii* metabolism in the context of environmental industry and safety using techniques in the field of molecular genetics.

Poster presentation – 1:30 to 2:00 p.m.

Historical Reflections on the Moral Economy Argument

Sarah Roffe, Alexander Di Leo, Emily Baer, Lindsay Rynders, History

Mentor: Dr. Eileen Lyon, History

“Social norms and obligations, or the proper economic functions of several parties within the community” form the basis of moral economy. Outrage to moral assumptions and actual deprivation cause the direct action of the common people. Historian E.P. Thompson defined this concept to describe the English food riots where men stole grain from the middle-men, sold it at a fair price, and then returned the money collected to the middle-men. The concept itself is timeless and can be seen in uprisings and protests in a variety of cultures and countries.

Poster presentation - 2:30 to 3:00 p.m.

The Mechanism of Uncompetitive Inhibition of Human Glucose-6-Phosphate Dehydrogenase by Steroids

Katrina Rojas, Alissa Jolley, Biology

Mentor: Dr. Theodore Lee, Biology

Glucose-6-phosphate dehydrogenase (G6PD) is a cytosolic enzyme utilized in the oxidative phase of the pentose phosphate pathway. G6PD reduces nicotinamide adenine dinucleotide phosphate (NADP) to NADPH through the oxidation of glucose-6-phosphate. Inhibition of this enzyme can be achieved by steroids. This inhibition is known to be uncompetitive with respect to both glucose-6-phosphate and NADP+. To further analyze the mechanism of uncompetitive inhibition an expression plasmid will be developed containing human G6PD cDNA and a histidine tag, which will facilitate the isolation of the enzyme. This will then allow for the molecular interactions between steroids and the G6PD enzyme to be analyzed. Previous studies suggest that the inhibition of G6PD by dehydroepiandrosterone (DHEA) and other related steroids is due to their binding to a ternary enzyme-coenzyme substrate complex. These studies also suggest that the steroid binding site on G6PD is only generated after the binding of the substrate and coenzyme.

Poster presentation - 1:30 to 2:00 p.m.

Retrospective Analysis of Best Buy

Evan Rugel, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Cello Performance

Giovanna Ruggiero, John Chatterton, Stephen Minor, Mary Porcaro, Music

Mentor: Dr. Natasha Farny, Music

Our string quartet is auditioning/applying to the Chamber Music Institute at the University of Nebraska-Lincoln. This is an opportunity for us to receive more intensive study in the field of chamber performance. Participating in this experience will help us develop our musicianship and then we can take what we learn and apply it to our studies here at the Fredonia School of Music. We hope to study this summer in Lincoln-Nebraska and represent the music program at SUNY Fredonia. This camp provides a full-paid fellowship upon acceptance, but due to the extensive transportation it would require for the four of us to get there we are looking to receive a grant to help us in paying for this process.

Performance at 3 p.m.

Historical Reflections on the Moral Economy Argument

Lindsay Rynders, Sarah Roffe, Alexander Di Leo, Emily Baer, History
Mentor: Dr. Eileen Lyon, History

“Social norms and obligations, or the proper economic functions of several parties within the community” form the basis of moral economy. Outrage to moral assumptions and actual deprivation cause the direct action of the common people. Historian E.P. Thompson defined this concept to describe the English food riots where men stole grain from the middle-men, sold it at a fair price, and then returned the money collected to the middle-men. The concept itself is timeless and can be seen in uprisings and protests in a variety of cultures and countries.

Poster presentation - 2:30 to 3:00 p.m.

Body weight, Nutrition, and the Search of Peak Performance

Lindsay Rynders, History
Mentor: Mr. Jeff Iovannone, History

An athlete's body is their instrument. No matter what sport, athletes must discipline their bodies to perform faster and more efficient to achieve peak physical performance. The fascination of gaining peak physical form can lead to disordered eating and eating disorders. Both of these dangerous eating habits effect both men and women. Fredonia State has seventeen men's and women's sports teams that are maintained by a staff of athletic trainers ready for any injury. What is lacking at Fredonia State is the availability of a sports nutritionist to cater to the specific needs of an athletes body. An on site sports nutritionist would help combat disordered eating and eating disorders among athletes.

Poster presentation - 5:00 to 5:30 p.m.

Retrospective Analysis of Denny's

Kyle Santamour, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Theatrical Combat Workshop

Samantha Sayers, Theatre and Dance
Mentor: Mr. Ted Sharon, Theatre and Dance

I will be attending the Louisiana Tech Combat Workshop at the end of March, and I will be creating a video presentation to present not only for OSCAR but the multiple combat classes held at SUNY Fredonia's Dept of Theatre and Dance.

Poster presentation – 2:00 to 2:30 p.m.

Plyometric Training and Endurance Exercising

Lauren Schaefer, Ashley Keller, Katelyn Haley, Chris Wright, Exercise Science
Mentor: Dr. Todd Backes, Exercise Science

Our study is based on if plyometric training and endurance exercising will effect the vertical jump test. We have discussed different methods that will be used for this study. What we have decided on is that half of our group will be do endurance exercises for two week and the other half will be do plyometric training for two weeks and then switching. We will be testing our vertical jump test before our exercise programs and after to a change in our vertical jump test.

Poster presentation - 1:30 to 2:00 p.m.

The Honors House

Jacob Schermerhorn, Amanda Buzard, History
Mentor: Dr. David Kinkela, History

This presentation will be on how the Living Learning Communities can enrich the freshman experience by integrating learning through campus and community engagement, specifically through the Fredonia Honors House now in its second year of existence.

Poster presentation - 1:00 to 1:30 p.m.

Money and Votes in the New York State Senate

Courtney Schmidt, Political Science
Mentor: Dr. Jonathan Chausovsky, Political Science

For my senior capstone project last semester, I looked at the voting record for the New York State Senators in the year 2008. As I began to look at the voting record, I noticed that there were very few instances of disagreements in the votes: almost all bills had a unanimous or near unanimous vote. Therefore, I chose 12 bills located in three different issue areas (tax law, insurance law, and environmental law) that showed a disagreement in the votes. For my research, I stated that 10 “nay” votes counted as a disagreement. I then compared the votes to the donations donated to each senator. One conclusion was that party ID was statistically significant when it came to votes: only Democrats voted “nay”. I also concluded that concerning tax laws, donations did have a statistically significant impact on voting outcomes. I will demonstrate my results on a poster.

Poster presentation - 1:00 to 1:30 p.m.

The SUNY Fredonia Incubator: A Step in the Right Direction

Courtney Schmidt, Research Foundation
Mentor: Dr. Robert Fritzingler, Director of Incubator

I am writing the updated version of a policy paper for the Incubator. In my paper, I am going to first present what an incubator is and how it functions. This includes going into the different steps that businesses take throughout the incubation process. Next, I am going to state the reasons why and how the SUNY Fredonia Incubator can help the economy of the area. I am going to use examples of other incubators to prove this point. Finally, I am going to state why it is important for students not only to be aware of the Incubator (because many are not), but also the benefits that would come from becoming involved at the Incubator.

Poster presentation - 1:30 to 2:00 p.m.

Body Activism Project -- Accessibilty and Our Community

Jeffrey Schmidt, History
Mentor: Mr. Jeff Iovannone, History

The goal of this presentation is to examine handicap accessibility as it relates to our campus and community. The Americans with Disability Act, enacted in 1990, was meant to prevent discrimination for people with disabilities. They made a lot more buildings accessible. But this presentation will look at the ADA twenty plus years later to see HOW accessible this is, using examples from our community and campus.

Poster presentation - 5:00 to 5:30 p.m.

Watts Riots: The Rise of Community through Music

Ashley Schosek, History

Mentor: Dr. Jennifer Hildebrand, History

I plan to investigate the 1965 Watts Riots and how music, in particular that of the record label Volt/Stax, was able to create a sense of unity and integration during a period of true liminality, which in part surged the Black Power movement. I will also explore the events following the Riots, including commentary on the causes of the issues, exploitation of Blacks in the 1960s, and the continuing of the Black Power movement culminating in the Wattstax concert of 1972. Featured in this exploration will be the growing racial tensions between black and white individuals during the 1960s. This includes unequal practices in the housing market when the black populace was on the rise, namely blockbusting, and how that affected both white and black families in LA. The racial tension of the streets can be compared against the backdrop of the popular Stax Record label, featuring the house band, Booker T & the MGs, an integrated group out of Memphis. As an example of what life could be, Stax brought a sense of identity and culture during a period, aiding in the confidence to incite upheaval and ask for change.

Poster presentation - 2:30 to 3:00 p.m.

Are You Fresh or Stale?

Kyle Scudder, Physics

Mentor: Dr. Justin Conroy, Physics

What do you prefer? Stale or fresh? This is what I'm exploring. What percentage of the population might actually prefer the taste of stale M&Ms over fresh ones. I will also explore the science of tasting.

Poster presentation – 2:00 to 2:30 p.m.

Retrospective Analysis of Doons Bar

Samantha Shaver, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Motivating the Millennial: A Herzburg Study

Brian Sheehan, Clifford Ball, Kelly Franck, Business Administration

Mentor: Dr. Lisa Walters, Business Administration

Today's Millennial generation functions in a society hallmarked by rapid information, constant connectedness, and high mobility. Have these conditions impacted the motivational factors of the Millennial generation as compared to earlier generations? Our research team believed similar motivational factors would be relevant for both generational perspectives, establishing the hypothesis for our study. Using the framework of Herzberg's classic motivation study, we sampled 30 Millennial participants, and then compared those results to those identified in the past by Herzberg. Thus, Herzberg's original results represented the motivational concerns of past generations. The teams asked the participants two key questions similar to those posed earlier by Herzberg: 1) describe a time you felt good at work; and 2) describe a time you felt bad at work. An evaluation of the results found that although the individualistic characteristics of the workers differed across the generations, the motivating factors appear to remain rather similar.

Poster presentation – 3:30 to 4:00 p.m.

Retrospective Analysis of FSA Centre Pointe

Gina Simone, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Crepe Brulee

Caitlin Skellett, Kristie Beckinghausen, Physics
Mentor: Dr. Justin Conroy, Physics

Our project will display two different methods of preparing crepe brulee. It will compare the texture and taste using different amounts of ingredients. And it will delve into the science behind this dessert.

Poster presentation - 5:00 to 5:30 p.m.

Environmental enrichment as a means of increasing male/female social interactions in a critically endangered species, *Macaca nigra*

Danielle Renee Smith, Biology
Mentor: Dr. Karry Kazial, Biology

The term environmental enrichment has been expanded over time to include not only food, but any modification of the physical and social environment of an exhibit in an attempt to improve the animal's quality of life in captivity. Studies suggest the duration of stress may also play an important role in reproduction. Sulawesi Crested Macaques are critically endangered, and engage in a multimale/multifemale mating system. Social behaviors between males and females have been observed for several months alternating between weeks of no enrichment, and weeks with a novel enrichment device to introduce an acute level of stress. Gaining knowledge on the effectiveness of introducing environmental enrichment items to increase social interactions between males and females is a fundamental component of captive breeding programs. This increase in interactions may lead to an increase in affiliative behavior which could possibly result in increased reproductive success.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Retrospective Analysis of Dick's Harbor House Restaurant

Thaddeus Smith, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Developing A Shell

Jim Smith, Justin Soderberg, Computer Science
Mentor: Dr. Junaid Zubairi, Computer Science

We are attempting to create a basic usable shell to demonstrate memory management techniques and other computer science theories.

Computer presentation – 5:00 to 5:30 p.m.

Fish Gut Analysis

Morgan Smith, Nicholas Williamson, Chemistry
Mentor: Dr. Sherri Mason, Chemistry

During the summer of 2012, our research team conducted the first-ever survey for Plastic Pollution in the Great Lakes. What was most surprising about our research results was the prominence of micro-plastics, namely particles less than 1 millimeter in diameter. Particles of this size could be easily mistaken as a food source and be consumed by top-feeding fish. This project was designed to analyze the content of fish guts as an initial investigation into this possible entryway of plastics into the food web. We will present our sampling protocol, methods and on-going analysis.

Poster presentation - 2:00 to 2:30 p.m.

Jazz from Harlem to New Orleans

Rachel Smith, History

Mentor: Dr. Jennifer Hildebrand, History

My research will compare Jazz music during the Harlem Renaissance compares to the development of Dixieland Jazz in New Orleans at the same time. I will discuss if there was a correlation between the developments as well as if one location influenced the other.

Poster presentation - 3:30 to 4:00 p.m.

Processor Scheduler Simulator

Kyle Smolinski, Ankit Ahuja, Computer Science

Mentor: Dr. Junaid Zubairi, Computer Science

We developed a processor scheduler simulator in C#. This simulator allows the user to select from FCFS, Round Robin, and SJF scheduling schemes. Processes and their total time requirements are generated randomly and queued for processing by the scheduler. When a process is running, the simulator may generate a blocking call randomly for that process, removing it from the processor and placing it in a "blocked" queue. A process may also be removed from the "blocked" queue to "ready" queue at random times. The user is given a choice to enter the number of processes to be generated. In the end, simulator saves the statistics for each process completed, including arrival time, total running time and total number of context switches. All data will be saved for research.

Computer presentation – 5:30 to 6:00 p.m.

Intro into Gender Studies

Katy Snyder, Justin Dickerson, English

Mentor: Mr. Jeff Iovannone, English

For our project, Justin and I want to create a course called "Intro to Gender Studies", addressing the definition of gender across the world, gender roles and issues in America, and how these issues have evolved over time. The class will be interdisciplinary and address a wide variety of subjects that deal with the differing gender concepts in the United States today. An example is people and their relation to birth, options available and obstacles people face because of sex and gender.

Poster presentation – 2:00 to 2:30 p.m.

Web Interface for Education Decision Support System

Justin Soderberg, Computer Science

Mentor: Mr. Robert Olson, Computer Science

Human-Computer Interaction (HCI) is an area of study that has become common in the modern era for how users interact with graphical computer interfaces. HCI allows developers to create the most intuitive and functional interfaces for the end users. HCI theories encompass many types of interface design including desktop applications to web applications. The interface being developed throughout my research will allow users to interact with software being developed by other researchers to reduce bullying within the educational system. Utilizing HCI theory along with many web design principles it is possible to create a suitable prototype and eventual final product for an educational decision support system aimed at non-expert users. The final product will be used as a front end for all users, including teachers, counselors, and administrative personnel to interact with server side software. The goal for my research is to create the most efficient interface for end users to update and retrieve data from databases containing student information.

Poster presentation - 2:30 to 3:00 p.m.

Noun Phrase Elaboration in School Aged Children's Narratives

Naomi Spallina, Communication Disorders and Sciences

Mentor: Dr. Anny Castilla-Earls, Communication Disorders and Sciences

The emergence of noun phrase elaboration plays an important role in developing literate language. Evidence from previous research suggests that all noun phrase types including simple designating noun phrases, simple descriptive noun phrases, complex descriptive noun phrases, and complex noun phrases with noun post-modification were produced by more children in the object than in the subject position. The current study analyses noun phrase elaboration in two narratives elicited from 54 typical development children ages 4-6. Clinicians read two separate narratives to each child individually. The children then followed by repeating the narrative when provided with only the pictures of the story. These narrative sessions were later transcribed to be analyzed using the SALT program. The aim of this research is to explore the noun phrase elaboration of the children's narratives and ultimately identify reasons for differences within this sample.

Poster presentation - 1:30 to 2:00 p.m.

Examining Associations Between Digital Calendar Use and Prospective Memory

Keith Stam, Caroline Griffith, Psychology

Mentor: Dr. Jennifer Dyck, Psychology

The current study involves studying the relationship between one's prospective memory, or remembering to perform an intended action in the future, and different methods of calendar use. Subjects completed a number of online surveys that evaluated how frequently memory aids are used, what different types of memory aids are used, how busy one is throughout the day, week, or even month, and how conscientious one is. We hypothesized that there would be a positive relationship between how frequently digital memory aids are used and having better ratings of prospective memory. We also expected that busier people will have worse prospective memory. We also hypothesized that the higher subjects score on a conscientious survey, the better their prospective memory will be.

Poster presentation - 1:00 to 1:30 p.m.

The Experience of Agency: Watching vs. Doing

Keith Stam, Christopher Maier, Dale Haskins, Psychology

Mentor: Dr. Justin Couchman, Psychology

As humans, we enjoy being in control. Two experiments explored self-agency – the feeling that you are in control – while performing the task of controlling objects on a computer screen with a joystick vs. watching someone else control objects. Pairs of subjects were shown a screen with four letters. One subject, the “doer”, was in control of one of the letters. Another letter moved randomly, and 2 others moved in pre-defined patterns relative to the joystick. In Experiment 1, a “watcher” simply observed these actions. After the trial, both subjects were asked to choose either the controlled or randomly moving cursor. In Experiment 2, the “watcher” observed the actions while making analogous movements on a joystick that did not control anything, but provided them with sensory cues that often enhance self-agency. We predict stronger feelings of self-agency for the “doer”, and accuracy advantages beyond chance levels caused by self-agency.

Poster presentation - 1:30 to 2:00 p.m.

Child Comfort and Attachment to Dogs as Determined by Number and Duration of Touches

Jenna Steinmiller, Hannah Manning, Psychology

Mentor: Dr. Nancy Gee, Psychology

Child Comfort and Attachment to Dogs as Determined by Number and Duration of Touches

In the growing field of Human-Animal Interaction there is a great deal of interest in the degree to which people are comfortable with, or emotionally attached to, the animals with which they interact. Many questionnaires have been developed to assess attachment in adults, but there is currently no good way to examine this issue in children. Additionally, direct contact has not been examined a measure of these variables. The current study presents a video analysis of children interacting with a real dog, a stuffed dog, or a human. We hypothesize that the children will purposefully or inadvertently touch the dog more

than they will touch a stuffed dog or human during the task. We also hypothesize that the duration will be longer in dog conditions. The results of this analysis will be presented and discussed.

Keywords: Touch, Duration, Dog, Human-Animal Interaction

Poster presentation - 2:30 to 3:00 p.m.

Retrospective Analysis of Newark Reds Varsity Football Team

Daniel Stokes, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Monitoring Acetyl-CoA Carboxylase and Thiolase in Lipid Metabolism of Micro alga Chlamydomonas Reinhardtii for Biodiesel Production

Michelle Sudyn, Biology

Mentor: Dr. Frederick Harrington, Biology

Developing an alternative means of obtaining biodiesel that is clean, sustainable, and efficient is an issue demanding attention. Microalgae are a competitive source of oil that can ultimately substitute our current means of oil extraction. In order to integrate this new alternative energy source the process in which the oil is extracted and anabolized within the cell must be practical and efficient. Understanding the metabolic pathway in which lipids are synthesized within algae can provide a model in which we can manipulate to maximize this process. Acetyl-CoA Carboxylase (ACCase) and Thiolase are enzymes involved in lipid synthesis and degradation. We have observed via mRNA quantification a relationship between ACCase and Thiolase during nitrogen starvation induced lipid storage, indicating their importance in lipid metabolism. Observing these enzymatic activities now serve as a molecular indicator of internal cellular functioning, setting the groundwork for further investigation of other molecular interactions within the lipid production and storage pathways.

Poster presentation - 2:30 to 3:00 p.m.

Quantitative Analysis of Caffeine Content in Coffees sold on campus via H1 qNMR.

Alexander Summerton, Chemistry

Mentor: Dr. Matthew Gronquist, Chemistry

Via Organic Layer separation and purification, caffeine will be isolated from samples taken from coffees purchased at FSA Cafe, Starbucks, and Tim Hortons. After purification, samples will be examined with H1 qNMR techniques to determine caffeine concentration in sample, and thus serving size.

Poster presentation - 1:00 to 1:30 p.m.

Slave Ownership in Colonial Philadelphia

Penny Sutton, History

Mentor: Dr. Nancy Hagedorn, History

This subject of slavery in Northern urban cities in colonial times has not received the attention that the Southern institution has allotted. Slavery in America has long been associated with the economy of the South and was only recently appreciated for its importance in the commercial and social life of cities in the North. Textbooks and literature have placed little attention on slavery in William Penn's colony choosing to focus on Pennsylvania as a mecca of religious toleration and individual liberty. Only recently have scholars investigated the system of Negro bondage in northern cities and compared the arrangement to white servitude. Governor William Keith in 1722 reported that Pennsylvania had few slaves "except a few household servants in the city of Philadelphia." Benjamin Franklin wrote in 1770 that few northern cities used slaves but for household servants. In 1750 Swedish Botanist Peter Kalm was visiting the city and commented that Negro slaves were owned by everyone who could afford one.

Quakers who had cast off their moral scruples were found to own just as many slaves as everyone else. Despite the differences in opinion slave holding in Philadelphia was to be more extensive than formerly believed.

Poster presentation – 5:00 to 5:30 p.m.

Game Programming

Jeffrey Swift, Nicholas Freville, Patrick Hodge, Computer Science
Mentor: Dr. Gurmukh Singh, Computer Science

The presentation will feature the demonstration of two separate computer games. The first will be the starting of a two-dimensional side-scrolling platformer game, along with a functional graphical map editor used in editing levels of the game. These are programmed in C++, and utilize the Simple DirectMedia Layer (SDL library).

The second game features a three-dimensional city environment based on a two-dimensional voxel plane. It is being developed using C# and the Unity game engine.

Computer presentation – 2:30 to 3:00 p.m.

Applying K-means Clustering to the Social Graphs of Student Classrooms

Robert Szkutak, Computer Science
Mentor: Mr. Robert Olson, Computer Science

This student research project will display a means to employ k-means clustering to analyze social graphs composed of the relationships between students in a classroom. With social graph analysis alone, it is only possible to see how successful the arrangements of students within a classroom are without an immediate explanation of why it is such. By analyzing both the frequency and severity that bullying occurs between two students, it becomes feasible to graph and then cluster the relationships which make up the classroom's social graph on a two-dimensional plane. Through clustering, it is then possible to classify all of the relationships in a classroom at once as being beneficial or moderately to severely harmful. This type of information visualization allows for a deeper understanding of the interconnectivity of relationships between students to be quickly obtained. A number of possibilities are opened up by the cluster analysis of social graphs. Results are presented which display the usefulness and potential of this research to impact classroom education.

Poster presentation - 1:30 to 2:00 p.m.

The Wonder of Twining

Chad Szymkowiak, History
Mentor: Mr. Jeff Iovannone, History

The title of my proposal is "The Wonder of Twining." I chose the topic of "twining" because, I am a twin and have always been fascinated by the idea of having a twin. My twin brother, Derek (who is 6 minutes older than me), and I are fraternal.

The idea of my project is that I want to research not only how twins are "created" but the different types of twins- conjoined, identical, fraternal, triplets, quadruplets, etc. On the left side of my trifold I will have info about the process of "twining" during meiosis and mitosis inside the womb. On the center flap, I will describe the different types of twins, some historical examples of twins (ex. the Bunker/Siamese Twins), and some other interesting info on being a twin.

Poster presentation - 2:00 to 2:30 p.m.

Retrospective Analysis of Massaro Dry Cleaners

Claire Thering, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of Greenwood Park

Amy Tillotson, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Role of Women in American History

Brittany Toapha, History/Women's and Gender Studies
Mentor: Mr. Jeff Iovannone, History/Women's and Gender Studies

For my body activism project, I have the interest in focusing on women's role in American history. Being a History education major, I feel as though our youth is not being well-informed on important instances in history that deal with women making a difference. History is taught to our students in a male-dominant perspective and only briefly emphasizes specific female figures; such as, Emma Goldman, Harriet Tubman, etc. I will be creating a college course relating to this idea.

Poster presentation - 3:30 to 4:00 p.m.

Relative Bat Activity as an Association with Proximity to Water

Jonathan Townsend, Biology
Mentor: Dr. Karry Kazial, Biology

Bat activity varies in accordance with various geographic features, such as elevation, habitat type and water. This project examines how proximity to water affects relative bat activity, as well as how different species utilize this and other terrain features - do species that generally roost in trees have different preferences than species that dwell in caves or man-made structures? A better understanding of habitat use will enable us to make more informed land management decisions that help to protect bat foraging areas and habitat.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Retrospective Analysis of Blasdell Pizza

Megan Ulrich, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Connecting Psychology and the Public Health minor: An internship exploration

Alexandra VanBergen, Sociology
Mentor: Dr. Linda Dorsten, Sociology

This project allowed me to connect my psychology major, the public health minor, and an internship. My internship consisted of research on the specific needs of Chautauqua County for the Chautauqua Health Department. Specifically, I found what programs were already available and what needs in the county had not been met yet. Also, I did research on parent education. Through this research I found many programs that have been done all around the world. All of the programs I researched were evidenced-based. More than ever before, I found many links between psychology and public health. Some of these links include the process of research, the importance of evidenced-based programs, and the education of parenting, which can include strategies on how to develop empathy, self esteem, empowerment, and positive patterns of communication for both parents and children.

Poster presentation - 5:30 to 6:00 p.m.

Dialogic Reading: A Statistical Analysis

Alexandra VanBergen, Math/ Statistics
Mentor: Dr. Nancy Boynton, Math/ Statistics

Dialogic reading has been used with preschoolers to facilitate the development of their language skills. This study looked at the differences in the effect of dialogic reading and its various predictors for success between children who are elevated on the Child Behavior Checklist (CBCL) and children who are not. Of the many analyses done, the results showed that the predictors of Time 1 scores, Time 2 scores, and vocabulary change were different between those children who were elevated on the CBCL and those who were not. For example, children with elevations were more likely to have a greater vocabulary change if they had older parents, while children without elevations were more likely to have a higher vocabulary change if their parents had a higher education. Also, there were significant differences in Time 1 and Time 2 scores between the two groups, but no significant difference in vocabulary change.

Poster presentation - 3:30 to 4:00 p.m.

Parent-Child Dialogic Reading and Its Effects on At-Risk Preschoolers

Alexandra VanBergen, Alicia Welch, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

Dialogic reading has been used with preschoolers to facilitate the development of their language skills. The study looked at the effects of dialogic reading within a community population of 40 preschoolers, which included children with elevated subscale scores on the Child Behavior Checklist. The gains in vocabulary scores from pre-intervention to post-intervention were statistically significant. Also, children who were read to more showed greater gains in vocabulary.

Poster presentation - 5:00 to 5:30 p.m.

Close Reading and Common Core in the Classroom: Finding, Diagramming, Questioning and Analyzing Evidence in a Text

Kaleigh Vogan, Brea Erny, Language, Learning, & Leadership

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

This session defines close reading and establishes a relationship between it and the Common Core Standards for ELA. The session includes a demonstrate of a close reading of the book *Amazing Grace* by Mary Hoffman using the steps of finding, diagramming, questioning and analyzing (FDQA) evidence of author purpose, message, and structure. These steps improve the teaching of reading because they provide a systematic way to engage in close reading. This strategy for close reading also lends itself well to differentiated instruction as more visual learners benefit from the diagramming and all learners engage their own prior knowledge and experiences to analyze the evidence. This session also contributes to the ongoing learning of teachers as they take the close reading strategy learned here and practice applying it to other texts in their classes. The evidence base is a combination of the theories of reading comprehension, interactive reading, and critical reading and the positive experiences resulting from applying those theories to the practice of reading narrative texts, from picture books to young adult literature.

Poster presentation – 1:30 to 2:00 p.m.

Retrospective Analysis of Fredonia State Men's Soccer Team

Jeremy Voigt, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Post-Tsunami Attitudes Toward Education Reform

Kayla Vossler, Kimberly Molfetto, Psychology

Mentor: Dr. Cheryl Drout, Psychology

The purpose of this research is to investigate to determine how Japanese students feel about the educational system and reforms in Japan. This study is also looking to determine if the 2011 earthquake and tsunami have helped to shape these opinions. A survey has been designed to collect data and will be

given to Japanese international students as well as Japanese students visiting Fredonia for a few weeks. The survey will allow subjects to answer questions on their own opinion of the educational system in Japan, as well as answer demographic questions regarding their own experiences with educational changes. Once the data has been collected, it will be analyzed to determine if the tsunami has altered opinions towards education.

Poster presentation - 1:00 to 1:30 p.m.

Parenting While Stressed: How Maternal Depression, Social Support, Hostility, Age and Employment are Related to Parental Self-Efficacy Cognitions

Brittany Waller, Psychology

Mentor: Dr. Andrea Zevenbergen, Psychology

Being a parent can be stressful, especially for those suffering from cognitive distortions. The current study deals with how the factors of maternal depression, social support, hostility, age and employment status correlate with maternal self-competence. Subjects completed questionnaires regarding demographic characteristics, nine psychological symptom dimensions, social support, and parental self-efficacy cognitions. The researcher predicted that depression, hostility, lower age, low social support, and unemployment would be associated with lower parental self-efficacy. The hypotheses were supported by the statistical findings.

Poster presentation - 3:00 to 3:30 p.m.

Found Fish

Aaron Walters, Earth Week Competition Winner

I grew up along Chautauqua County and the beaches of Lake Erie have always been a frequent destination. Here I always enjoyed collecting objects washed ashore. While living in Dunkirk, I walked the beaches daily. The amount of trash found on the shore was breathtaking. Especially in the spring as the ice melted. The ice seemed to hold a secret about our society. Soon the trash would be picked up or covered with sand in anticipation of summer beach goers, but these beach walks during the spring thaws inspired the "Found Fish."

Displayed at expo throughout the day

Public Health Internship

Heather Ward, Sociology/ Public Health

Mentor: Dr. Linda Dorsten, Sociology/ Public Health

The Chautauqua County Health Department works to coordinate services to meet the needs of the community. This includes tracking the younger population, requiring Early Intervention. The EI office is responsible for being a "go between" of families, schools, and service providers. I personally organized a Microsoft Office Excel document and filing system, to track upcoming meetings for the efficiency of the service coordinators. With the heavy caseload of clients, organizing meetings and required services can be a daunting task, and the Early Intervention office strives to go above and beyond to deliver the best service coordination that the community deserves. In the field of Communication Disorders, it is essential to work well with many other professionals for the benefit of the client. By interning in the EI office I gained an understanding of different local school policies, and a look into all that goes into flawlessly providing multiple services to clients.

Poster presentation - 1:00 to 1:30 p.m.

Introversion in American Society

Robert Ward, History/English

Mentor: Mr. Jeff Iovannone, History/English

My poster will be a presentation of the hypothetical course I have designed about introversion and America. The course will explore the history of introversion, the negative and positive aspects of introversion, other society's views on introversion, and explore student's own characteristics.

Poster presentation - 5:00 to 5:30 p.m.

High Fructose Corn Syrup: How Much Are We Really Consuming?

Dianna Wasylyk, Kim Zazzara, Physics
Mentor: Dr. Justin Conroy, Physics

We look into the widespread abuse of high fructose corn syrup and how much of it is hidden in various foods we consume.

Poster presentation - 2:30 to 3:00 p.m.

Improving Political Discourse in America

Tyler Waterbury, Philosophy
Mentor: Dr. Andrew Cullison, Philosophy

My presentation will focus on what I perceive as America's greatest weakness- its government. What was once a source of pride is now embarrassing due to the way our elected officials debate issues, and for all the foreign threats and economic problems, if this is fixed, all other solutions will fall into place as a result. My generalized view and the focus of my presentation is as follows: the American government is dysfunctional, and in order to be fixed, political discourse must be improved. In order for political discourse to improve, the flow and content of necessary information must be improved in order to create a more informed public. This project will attempt to show the flaws of our current system, why it is in the state it is in, why it hasn't been fixed yet, and how it is possible as well as necessary to fix it now.

Oral presentation – 1:30 to 2:00 p.m.

Response of House Crickets (*Acheta domestica*) to Bat Sonar in a Mating Scenario

Rebecca Watro, Biology
Mentor: Dr. Karry Kazial, Biology

In the cricket attraction system, males voice calls and females approach the sound as to locate a mate. Predation often induces behavioral changes in this system. Currently there is no excess of information describing evasive maneuvers or behavioral trade-offs by house crickets (*Acheta domestica*) under threat of predation. Here, we seek to elucidate *A. domestica*'s behavioral responses to predation via ultrasonic bat cries. We predict that crickets will exhibit negative phonotaxis and that male crickets may stop calling altogether in the presence of bat sonar due to the adaptive nature of these responses. In the wild, insects are often presented with decisions, i.e. a choice between a prospective mate and escaping predation. We will examine the potential trade-off between mating opportunities and predation risk for female crickets; in this scenario we predict that females may abort positive phonotaxis towards conspecifics in the presence of sonar.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Stress Education and Gender Differences

William Webster, History
Mentor: Mr. Jeff Iovannone, History

My proposal is an activist presentation and paper that will be on stress levels between males and females and also looking into students of different ethnic backgrounds to have a dual category of gender and race and how differences and similarities are seen between all involved.

Poster presentation - 2:00 to 2:30 p.m.

Retrospective Analysis of Honeoye Falls Market Place

Megan Wells, Psychology
Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Retrospective Analysis of Buscaglia Decks

Derek West, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

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

Running Capabilities of Ghost

Steven Whittemore, Biology

Mentor: Dr. Scott Medler, Biology

Body size has a major impact on the skeletal muscles that power locomotion. Smaller animals have a high frequency of limb movement, which is evident in Ghost crabs as they increase in size. We wanted to know why the crabs have a slower stride frequency as they grow; because of muscle organization or changes in body proportions. We measured varying sizes of Ghost crabs running performance on treadmills and compared it to their body dimensions and mass. We found that larger crabs have a lower stride frequency, and that their relative load carried increases as they grow. This means that cross sectional area of the muscles was increasing slower than mass. We then tested in weighting crabs would slow stride frequency, which it did not impede significantly. We predict that since relative load does not decrease stride frequency it must be something at the cellular or muscular level.

Poster presentation - 3:00 to 3:30 p.m.

Comparisons and Forecasts of International Annual Labor Force Statistics

Will Wickett, Mathematical Sciences

Mentor: Dr. Nancy Boynton, Mathematical Sciences

I will be highlighting comparisons of international annual labor force statistics, as well as using time series statistical methods to forecast different types of labor force data. I will be conducting an analysis of unemployment rates by sex, age, and nation for the United States, United Kingdom, Canada, and Japan.

Poster presentation - 2:30 to 3:00 p.m.

Retrospective Analysis of Enactus/SIFE Team

Will Wickett, Psychology

Mentor: Dr. Jack Croxton, Psychology

(see abstract at end of book)

Poster presentation - 2:00 to 2:30 p.m.

Metacognition

Raela Wiley, Shaun Zmuda, Lexi Perez, Hannah Manning, Psychology

Mentor: Dr. Justin Couchman, Psychology

The ability to monitor cognitive functions is associated with the prefrontal cortex, which is typically more developed in adults. Two studies involving a perceptual discrimination task examined the hypothesis that the presence of a therapy dog leads to stronger executive functioning in children and adults. In Experiment 1, children completed a sparse-dense perceptual discrimination task on a computer with or without a dog present. Children classified a black dog as having fewer ("sparse") or more ("dense") white spots. A third "uncertainty" response skipped the current trial, avoiding both penalty and reward. In Experiment 2, adults sat with and without a dog for two minutes while electroencephalography (EEG) measured their neural activity. They then completed the sparse-dense task. They showed heightened

prefrontal activity in the presence of the dog. In children, the presence of the dog positively impacted their ability to monitor their own thinking.

Poster presentation - 1:30 to 2:00 p.m.

Lake Erie Beach Survey

Nicholas Williamson, Environmental Sciences
Mentor: Dr. Sherri Mason, Environmental Sciences

Chemicals residing in plastics, which are found in everyday products such as food packaging, medical equipment, and children's toys, have been linked to serious medical issues such as cancer and endocrine disruption. Plastic debris that is not properly disposed of travels through bodies of water such as lakes, streams, and rivers before inevitably ending up in the world's oceans. These plastics begin as consumer products and end as waste that is often discharged through storm water runoff to nearby aquatic ecosystems. Once entered into aquatic environments, these persistent products break apart into smaller fragments increasing their surface area and impact on natural ecosystems. In an effort to understand the abundance and seasonal variation of plastics within the Great Lakes, a year-long study on one local Lake Erie beach was performed. The data from these beach surveys will be presented and discussed.

Poster presentation – 2:30 to 3:00 p.m.

Seta Biotechnologies

Dustin Wilson, Ryan McConnell, Nicole Foote, Business Administration
Mentor: Dr. Susan McNamara, Business Administration

Our group would like to propose the company business plan we have created for BUAD 323 Organizational Behavior. As part of Dr. McNamara's class we must create a small-simulated company from we learn the key aspects of owning and operating a business. We have developed a company called Seta Biotechnologies, which operates, on the environmental forefront of polyurethane recycling. Currently our business plan includes:

Company name and logo

Mission Statement

Product/Service Description

Markets

System Map of your business

Business Structure

Process Map

Financial Plan to include salaries, fringe, marketing and operations

Corporate Value Statement

Salary and Benefit Program

Recruitment Strategy for new employees

Poster presentation – 3:00 to 3:30 p.m.

Photomorphogenic Effects of UV-B Radiation and Antioxidant Repair on Arabidopsis thaliana Deficient in CUT1 Gene

Tiffany Wong, Biology
Mentor: Dr. Jon Titus, Biology

UV-B radiation may cause morphological, physiological, and genetic damage to living organisms. Sessile organisms such as plants, are unable to escape the relentless UV-B exposure. In this study, *Arabidopsis thaliana* will be subjected to varying degrees of UV-B radiation and treated with antioxidants. The hypothesis is: UV-B exposed *Arabidopsis thaliana* deficient in the production of waxy cuticles (CUT1 gene) which renders the plant vulnerable, will recover more efficiently when treated with antioxidants. Four frames will be covered in 1-4 layers of cellulose acetate film at 0.08mm. UV-B fluorescent light (280-315) and photosynthetic photon flux density (400-700nm) sources will be above frames. Plants will be placed in an environmental chamber at 23 C°. After first signs of growth appear, antioxidants will be sprayed onto plants. UV-B radiation and photosynthetically active radiation will be measured with a radiometer/photometer.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Oriental Bittersweet

Jessica McClean Wooten, Biology
Mentor: Dr. Jonathan Titus, Biology

Oriental bittersweet (*Celastrus orbiculatus*) is a deciduous, woody vine native to Southeast Asia. Currently this invasive is considered a major threat to native forests in the eastern United States because of its' high competitive ability and prolific seed production and germination. In order to preserve the native plant communities at Presque Isle State Park in Erie, PA, a total of 5 treatments, each having 4 replicates was established. The two control treatments involved either making cuts of all stems at chest height and ground level (window cut) or no action at all. An additional two treatments involved stump herbicide applications of either triclopyr or glyphosate to all cut stems and the final treatment was a foliar herbicide application of both herbicides to all regrowth 5 weeks post cut. Data analyses have determined the most effective method to suppress Oriental bittersweet is by applying a foliar herbicide application 5 weeks post cut.

Graduate Student Poster presentation - 5:00 to 6:00 p.m.

Indoor vs. Outdoor cooking

Monika Wozniak, Sarah Johnson, Physics
Mentor: Dr. Justin Conroy, Physics

Researching the differences in cooking a meat, such as chicken, either outdoor on a grill and indoor in the oven. Exploring the different environments and how that affects the overall taste of the chicken.

Poster presentation - 1:00 to 1:30 p.m.

Chautauqua County Farmers' Markets and Their Role in the Community

Dylan Yetter, Sociology
Mentor: Dr. Linda Dorsten, Sociology

Farmers' markets serve important needs within the communities in which they operate. My project entailed evaluating two key components of market operation: economic development and demographic characteristics of market clientele. The population of Chautauqua County faces unique issues which can be addressed by the farmers' markets. The racial/ethnic makeup of the population means there are cultural practices which differ between groups. The relatively low socioeconomic status that many share has consequences related to food access and health-related problems such as obesity. My experience demonstrates the overlap between economic interests of markets and cultural interests of market goers to explore how market operators can more successfully serve existing and potential customers. Food purveyors are uniquely situated to attend to the needs of the local population while creating economic growth for farmers, affecting widespread social change within the community.

Poster presentation - 1:00 to 1:30 p.m.

Factor Like a Raptor: A Study of College Students' Understanding of Factoring

Heather Zuch, Mathematical Sciences
Mentor: Dr. Keary Howard, Mathematical Sciences

This study explores the troubles students have with factoring and the different methods students can use to factor. My hypothesis is that students have trouble remembering which method of factoring to use when factoring different types of equations. When students are unsure of which method to use, they will make up their own method to try and solve the problem.

Poster presentation - 5:00 to 5:30 p.m.

Opioid Dependence

Samantha Zywar, Sociology
Mentor: Dr. Linda Dorsten, Sociology

Opioid dependence is an increasing issue in Chautauqua County and the rest of the United States. One of the most encouraging treatments is Suboxone film. Suboxone is a medication that helps people end their dependence on opiates. As a social work major I am aware that this is a population in need. I am also aware through my studies and research that the stigma behind opioid dependent patients seeking treatment is severe. Because of this healthcare companies do not always cover treatments or therapies needed to prevent relapse. As I researched this topic I have discovered that the need for more treatment centers and better funding for these programs is increasing. Suboxone treatments can help people overcome addictions and positively benefit the community and society.

Poster presentation - 5:00 to 5:30 p.m.

Visual Arts and New Media Projects

Mentor: Dr. Leesa Rittelman, Visual Arts and New Media

Post-It Note "Street Art" Mural

Team Members: Tom Graber, Rachel Crennan, Maggie Gilroy, Justin Hawes, Jillian Burgess

Students from Dr. Rittelman's HONR 224 class "A History of Street, Graffiti and Guerilla Art" will offer a poster session explaining the history of Post-It note graffiti and collaborate with Expo visitors to create two large colorful Post-It murals to be installed in Reed Library's second floor windows.

Additional Information:

Expo visitors will be encouraged to write down what makes their hopes and desires on yellow Post-Its to be used in the creation of a "Pac Man" mural and to write down the stressors in their lives on blue Post-Its comprising a "Pac Man Ghost" mural. In this popular video game, the Pac Man eats the Blue Ghost. The murals will symbolize the possibility that fear can be conquered by maintaining a clear focus on hope and desire instead.

Poetry Bomb

Team Members: Michael Holt, Hannah Morris, Christian Hernandez, Lucas DeNies, Heather Zuch, Anthony Lake, Zachary Zabawa, Morgan Smith

Students from Dr. Rittelman's HONR 224 class "A History of Street, Graffiti and Guerilla Art" will offer a poster session explaining the history and purpose of the contemporary Poetry Bombing movement and encourage Expo attendees to create and install their own Poetry Bombs on campus. They will likewise document and discuss the Poetry Bomb they created to be installed at random locations around the Fredonia campus in the week prior to the Expo.

Moss Graffiti

Team Members: Matthew Boland, Stephanie Burns, Jenna Vazina, Kimberly Sucher, Taylor Sheehan, Allison Marcy

Students from Dr. Rittelman's HONR 224 class "A History of Street, Graffiti and Guerilla Art" will offer a poster session and tutorial on how to create and install graffiti letters from moss grown on stone surfaces. They will install examples of Moss Graffiti on the concrete half-columns flanking the walkway between Reed Library and the Williams Center that will grow and become visible over the last weeks of the spring term.

Psychology Abstract

Organizational Psychology: Retrospective Analysis Projects

Mentor: Dr. Jack Croxton, Psychology

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. They 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 throughout the day and all begin with the title, "A Retrospective Analysis of....."