



NORTHEAST REGIONAL
UNDERGRADUATE RESEARCH,
SCHOLARLY AND CREATIVE ACTIVITY
CONFERENCE

Council of Public Liberal Arts Colleges

Host campus:
Mansfield University of Pennsylvania

Participating campuses:

Eastern Connecticut State University
Keene State College (NH)
Mansfield University of Pennsylvania
Massachusetts College of Liberal Arts
Ramapo College of New Jersey
St. Mary's College of Maryland
State University of New York at Geneseo
University of Mary Washington (VA)

13-14 October 2017

Dear Colleagues,

It is my privilege to welcome you to Mansfield University for the Northeast Regional Undergraduate Research, Scholarly, and Creative Activity Conference.

During your visit to Mansfield, I encourage you to explore our beautiful campus. Situated on 175 acres in the beautiful mountains of northern Pennsylvania, Mansfield University offers students a unique personalized environment with tremendous opportunities for learning and growth. Our campus is relaxing and comfortable, a perfect place for studying, interacting with faculty and staff or participating in one of our many university or community activities.

On Friday evening, you will attend our Music Department's Prism Concert. The concert is uninterrupted by pause or applause, allowing over 200 musicians to provide more than an hour of continuous music from all corners of Steadman Theatre. I sincerely hope you enjoy the wide variety of music – from jazz to classical styles and everything in between.

I would like to take this opportunity to thank personally the many talented and dedicated Mansfield University students, faculty, and staff who were involved in the meticulous planning and organization of this conference.

I hope you enjoy your visit to Mansfield University!

Sincerely,



Scott W.H. Barton
Interim President

**Council of Public Liberal Arts Colleges
Fall 2017 Northeast Regional Undergraduate
Research, Scholarly and Creative Activity Conference
Mansfield University of Pennsylvania**

Friday, 13 October

- 4:30-5 pm **Registration**, Hickory Hall Entrance
- 5-6 pm **Art Exhibition**, 307 Alumni Hall
Poster Session, 307 Alumni Hall
- 6-7:30 pm **Dinner & Opening Remarks**, North Manser
Scott Barton, President, Mansfield University
Cole Woodcox, Director, COPLAC
- 7:30-8:45 pm **Prism Concert**, Steadman Theatre
Mansfield University Music Department

Saturday, 14 October

- 8-9 am **Breakfast**, Hickory Hall
- 9-10:15 am **Concurrent Paper Session 1**, Alumni Hall
Room 312: Gray, Swaciak, Grassi, Davis
Room 314: Wright, Morel, Willis, Murphy
Room 317: Underhill, Hethcox, Fiegl, Lichon
- 10:15-10:30 am **Break**
- 10:30-11:45 am **Concurrent Paper Session 2**, Alumni Hall
Room 312: Donahue, Burkert, Probst, Mitchell
Room 314: Grissman, Wutrich, Salvatore, Setzer
Room 317: Vallie et al., Gerrol, Harden, Wilson
- 11:45-12:45 pm **Lunch**, North Manser
- 12:45-1 pm **Performance**, North Manser
- 1-1:15 pm **Group Photo**, outside of North Hall (weather permitting)
- 1:15-2:15 pm **Concurrent Paper Session 3**, Alumni Hall
Room 312: Woody, Brennan, Lowman
Room 314: Fenton, Doser, Edwards
Room 317: Gallant, Brault, Guevarra
- 2:15 pm **Concluding Remarks and Snack Pick-up**, Alumni Hall

ART EXHIBITION**307 Alumni Hall**

“Tapa Cloth, Modern Aztec”

Noelle Erickson

Faculty mentor: Martha Whitehouse

Mansfield University

Tapa cloths are patterned prints that are traditionally produced on mulberry paper that originated in the Pacific Islands. Tapas were major status symbols for families in the islands. A family was considered poor if they did not have a tapa cloth, no matter how much money they may have had. In printmaking class in the fall of 2016, Professor Mardi Whitehouse had my class create their own tapa cloths using handmade stamps and ink. Our options for this project were endless since we were given the choice to either stick with the traditional style of a tapa cloth, or venture out into a new and modern design. I personally decided to go with a modified modern tapa cloth. I call this “modern Aztec” mostly because of the Aztec patterns, but with more of a modern twist on the layout and color choices.

Noelle Erickson is a senior graphic design major with a print emphasis from Shamokin, Pennsylvania. After graduation, she hopes to find a job in her field and possibly attend graduate school simultaneously.

“Identity Construction” and “Chaos and Connection”

Alissa Paulison

Faculty mentor: Ann LePore

Ramapo College of New Jersey

Two wall pieces: a charcoal on paper and an oil paint on canvas. One is 3D construction and the other piece is flat.

Alissa Paulison is a senior visual arts major at Ramapo College of New Jersey.

“Beautiful People”

Halie Smith

Faculty mentor: Melanie Mowinski

Massachusetts College of Liberal Arts

These two drawings are from a series of five, all in charcoal, and portray people who inspire me. These people aren't famous or even well known in society: they have made mistakes and some have had bad reputations. However, I see that these people carry amazingly honorable traits that are hard to find in society. I have portrayed these people on a larger-than-life scale in charcoal to intensify the emotion of their poses. This decision also added a sense of physical challenge that added to my own personal connection to the drawings. I find that in my own art practice, I have to be just as physically invested as I am emotionally invested in order for a piece to reach its fullest potential.

Halie Smith is a senior at Massachusetts College of Liberal Arts. She is an art major with a minor in psychology, and is planning on going to graduate school for a Master's degree in fine art.

“P in #MUTypography”

Jessica O’Donnell

Faculty mentor: Michelle Schlegel

Mansfield University

This poster was a part of a larger project for an Advanced Typography project. The point of the project was to study a letter in its form, take pictures, sketch it, and eventually recreate it. After this project was done, we made a promotional poster for this letter showcasing our research. Our posters were to be set up to spell out the phrase “#MUTYPOGRAPHY”. This poster was the 2nd P of this arrangement.

Jessica O’Donnell’s hometown is Pocono Lake, Pennsylvania. She is a graphic design major with a focus in print.

“Clash of Classes”

Christopher Mitchell

Faculty mentor:

Keene State College

As a human who has grown up in a capitalistic society, I have observed many different people's positions and situations. Growing into an adult, the chances I will be making will soon determine my place in the pyramid of a capitalist system. Through my work, I make the connection between me and the viewer by putting myself in each social class: the 1%, upper class, middle-class, lower-class, and lastly the dead. By doing this the viewer is putting themselves into my perspective. My perspective is being conflicted with which social class I belong in. With being in a class there will always be positive and negative outcomes which vary from each social class. You will have to live with your choices for the rest of your life. Trying to decide if the positives outweigh the negatives. Making the connection your social class plays a part in what type of person you become. However looking at it in the grand scheme of things and not as a person perspective. Looking over how this capitalistic system works I've decided the whole point of this piece is “Whether you strive to be at the top, middle, or bottom, no matter what at the end of the day you will end up on the very bottom 6 feet under.”

From Portland, Maine Christopher Mitchell is a junior in pursuit of a Bachelor of Fine Arts degree in studio art, with hopes of going to a post-grad school.

Identifying Reproducible Methods for Microalgae Biodiesel Production

Colleen Steward

Faculty mentor: Barnabas Gikonyo

State University of New York at Geneseo

Reliance on dwindling reserves of fossil fuels poses a major threat to future economic and energy security worldwide. Fast-growing, photosynthetic microalgae offer a promising solution. Microalgae, such as *Chlorella*, require less arable land and yield high percentages of the fatty acids that can be converted to diesel fuel. Despite these advantages, biological and economic constraints limit commercialization. Our work aims to identify reproducible methods and increase efficiency in producing biodiesel from dried microalgae. Non-polar lipids were extracted from dried *Chlorella* using a 2:1 chloroform-methanol solvent. Although no discernable layer separation occurred, IR analysis detected alkenes, alkanes, an ester (1740 cm^{-1}), and an alcohol (3270 cm^{-1}). These functional groups suggest the presence of fatty acid methyl esters, signifying biodiesel production, and residual methanol contamination. Future work will attempt to induce better separation of the desired methyl ester product and to perform the transesterification *in situ*.

Colleen Steward is a junior biochemistry major from Gowanda, New York. After completing her undergraduate coursework she plans to attend graduate school and pursue a career as a biomedical researcher.

Separation and Conductivity Detection of Inorganic Ions Using Capillary Electrophoresis

Robert Rein

Faculty mentor: Jim Kraly

Keene State College

The goal of this analytical chemistry project is to implement a method for the separation and measurement of inorganic ions using a technique called Capillary Electrophoresis. Environmental and biological research often requires quantifying concentrations of simple ions in aqueous solutions. Capillary electrophoresis separates mixtures within a thin glass capillary using a high voltage and measures separated ions individually. Our aim was to produce two procedures that allow the rapid and sensitive separation of positively and negatively charged ions. Example separations will be presented to demonstrate instrumental performance and to determine analytical figures of merit. Separations of anions are achieved using a negative polarity 400 V/cm field strength. A lactic acid-histidine buffer results in the detection of seven ions in under five minutes. Cation separations will be attempted using a poly-vinyl alcohol (PVA) coated capillary to improve separation efficiency and reproducibility.

Robert Rein is a senior chemistry major and safety minor from Marshfield, Massachusetts. Rein plans to pursue a career in the chemical sciences following graduation and is interested in the field of pharmacology.

Investigation of Charge Transfer Capabilities of Plasmonic Cu₂-xS Nanocrystals

Michelle Leip

Faculty mentor: Rabeka Alam

State University of New York at Geneseo

A major concern in solar cell design is the need to store harvested energy for later use. Cu₂-xS nanocrystals exhibit localized surface plasmon resonance as a result of electron deficiency making these NCs a good candidate for energy storage. Cu₂-xS was synthesized using high temperature organometallic reactions and characterized with UV-vis spectroscopy, X-ray powder diffraction (XRD), and transmission electron microscopy (TEM). The charge transfer capabilities of Cu₂-xS were investigated by charging the NCs with methyl viologen. UV-vis was used to monitor the success of the charge transfer. As predicted, there was a decrease in the plasmon peak of Cu₂-xS as well as the emergence of two peaks from reduced methyl viologen, post-charge transfer. We are currently investigating the charge transfer capabilities between Cu₂-xS NCs and CdS quantum dots as well as the potential to grow gold nanocrystals on charged Cu₂-xS.

Michelle Leip is a chemistry major from Cortlandt Manor, New York who intends to pursue graduate school after graduation.

Mixture Formula Inversion for Creation of Materials with Desired Dielectric Properties

Jacob Foley

Faculty mentor: Erin Kiley

Massachusetts College of Liberal Arts

Dielectric properties of a material dictate how the material interacts with an electric field. Several mathematical models are in use for predicting the dielectric properties of mixtures of constituent materials whose dielectric properties are known. This project seeks to build on work that inverts these models to create mixtures with specified properties. Existing work has resolved the problem of using three materials to create a substance with specified dielectric properties, but the literature lacks a study on whether it is feasible or even necessary to use more than three materials. This work employs basic linear programming and geometrical analysis to determine whether it is cost effective or efficient to use more than three constituent materials in the creation of mixtures that have specified dielectric properties.

Jacob Foley is a senior mathematics student from North Adams, Massachusetts. After graduating he plans to get a job either teaching mathematics or creating programs to model relevant systems for a company.

Evaluating the Impacts of Water Contaminants on Fibroblast Viability *in vitro*

Nicole Wynne

Faculty mentors: John Williams and Kristen Long

Mansfield University

As the frequency of fracking increases, so does its negative environmental impacts. By evaluating ground and well water, the extent of fracking-induced contamination was determined. Water samples from a

contaminated well, a control well, local ground water, and contaminated well water that was filtered were collected and analyzed and compared to natural spring water. The specific concentrations of the contaminants found in the water samples were tested for potential toxicity using an *in vitro* fibroblast model. The effect the contaminants had on fibroblast viability and growth were monitored to determine the potential negative impact fracking has on the quality of ground water, and ultimately, the health of the people who rely on it as their water source.

Nicole Wynne is a senior studying chemistry with a concentration in biochemistry and a biology minor from Mechanicsburg, Pennsylvania. After graduation, she plans on attending graduate school to get a doctorate in biochemistry so that she can pursue a career in biomedical research.

Biodiesel Production from *Chlorella*: a Closer Look

Zoe Marr and Marcus Converse

Faculty mentors: Barnabas Gikonyo and Stephan Padalino

State University of New York at Geneseo

The investigation of more sustainable sources of fuel has been driven primarily by the diminishing supply of fossil fuels and their negative impact on the environment. The use of algae as an alternative energy source has shown promise because it has the potential to produce higher lipid yields than crop based fuel. The goals of this experiment were to make monitoring of *Chlorella* growth more efficient by utilizing ImageJ and to synthesize biodiesel from *Chlorella*. The ImageJ and the hemocytometer concentration values show similar trends and the error bars show that they are consistent with one another. The IR of the biodiesel following the transesterification process show a characteristic peak at 1741 cm⁻¹ indicating that the methyl esters (biodiesel) were synthesized successfully. The recent spectra also lacks the peak at 3414-3270 cm⁻¹ meaning there was no methanol contamination present, an improvement upon previous work.

Zoe Marr is a chemistry major from New Woodstock. She is a senior and is currently looking at graduate programs.

Marcus Converse is a physics major from Ithaca. He is looking into graduate programs in physics.

The influence of alpha5 subunit-selective negative allosteric modulators of GABA-A receptors on sexual conditioned place preference in a rodent model of depression

Allison Baret

Faculty mentor: Aileen M. Bailey

St. Mary's College of Maryland

Anhedonia is a common symptom of depression. We hypothesized that negative allosteric modulators of GABA-A receptors (GABA-NAMs) with an alpha5 subunit (e.g., L-655,708) would produce rapid antidepressant effects in rodent models of general anhedonia, measured by sucrose intake and weight, and sexual anhedonia, measured by sexual conditioned place preference (sCPP) and mating behavior in rodents after exposure to chronic restraint stress (CRS). We found that CRS significantly reduced weight gain, sucrose intake, and sexual behavior compared to control animals. One injection of L-655, 708 (0.7 mg/kg; i.p.) significantly increased sucrose intake, time spent in chambers associated with sexually

receptive females, and sexual behavior 24-hours later compared to control animals. We conclude that CRS induces anhedonia, and that L-655, 708 rapidly reverses these changes, providing evidence of the promise of GABA-NAMs as novel fast-acting antidepressants.

Allison Barrett is from Leonardtown, Maryland and is a psychology/English double-major. She is hoping to go on to graduate school to continue research in chronic illness.

Freeze/thaw Induced-reactive Oxygen Species in Pancreatic Cancer Cells Stall Cell Cycle Progression by Hindering Gene Expression of Cell Cycle Proteins

Sarah Cale

Faculty mentor: Kristen Long

Mansfield University

Pancreatic cancer is an aggressive and rapidly progressing disease. We evaluated the effect of reactive oxygen species (ROS) on proliferation rate of cells. ROS hinder cells from proliferating by decreasing the expression of VEGF-A, Her-2/neu, and COX-2, which are responsible for coding for CDK1. CDK1 is responsible for the B1/CDK1 cycle that allows cells to divide. By using the freeze/thaw method to generate ROS, we hypothesize that expression of these genes will decrease. In addition, we expect treated cells to initially proliferate at a slower rate than control cells, but eventually recover to a normal proliferation rate around 72 hours post-treatment - a point at which ROS are no longer present in the cell. In all, these data help elucidate the relationship between VEGF-A, Her-2/neu, and COX-2 and B1/CDK1 and their effect on tumor growth and spread.

Sarah Cale is from Hughesville, Pennsylvania studying biology at Mansfield University. She plans to attend a physician assistant school following graduation in the winter of 2017.

Examining Davis and Frohlich's System for Classifying Induced Earthquakes

Alexia Bohnenkamper

Faculty mentor: Meredith Metcalf

Eastern Connecticut State University

Recent fracking at large scales has been assumed to induce earthquakes yet this has never been statistically proven. This analysis evaluated this assumption for Oklahoma by testing variables from Davis and Frohlich's system for classifying induced earthquakes. Earthquakes with magnitude >3 were analyzed prior to and after the fracking industry expanded in Oklahoma. Variables considered included fracking well and fault characteristics. A spatial and multi-variable regression analysis was performed in a geographic information system to determine the significance of each variable in predicting the number of earthquakes. Results indicated that average distance to earthquake and average fracking injection well depth were statistically significant but only explain 5.5% of the number of earthquakes. Earthquakes did not occur in close proximity to faults which suggests earthquakes may be induced by other activities. Furthermore, other variables associated with fracking should be evaluated to determine the accuracy of Davis and Frohlich's criteria.

Alexia Bohnenkamper, from Collinsville, Connecticut, is working towards a degree in environmental earth science with a minor in Geographic Information Systems, and a concentration in sustainable energy. Post-graduation, she is hoping to start a career that involves statistical analysis.

Identification and Imaging of Clandestine Orphaned and Abandoned Oil and Gas Wells using Ground Penetrating Radar (GPR)

Cecil Cooper

Faculty mentor: Lee Stocks

Mansfield University

This research examines the feasibility of using ground penetrating radar to find, image, and inventory orphaned and abandoned gas and oil wells. As there are estimated to be over 100,000 of these abandoned and orphaned wells in Pennsylvania, this data will be used to assist the development of a statewide database of these potential pollution and fire hazards. It is also hoped that resolution of GPR imagery is sufficient that subsurface subsidence may be identified. This allows future mitigation of possible leaks of those with compromised casings that lead to soil and ground water contamination.

Cecil Cooper, from Tioga, Pennsylvania, is a watershed management and environmental science major. His future plans are to pursue an advanced degree.

Developing 3-Dimensional Photogrammetry Models of Jurassic Conglomerates in Central CT

Jennifer Croteau

Faculty mentor: James A (Drew) Hyatt

Eastern Connecticut State University

This study investigates the use of imaging and mapping techniques to build 3D digital models and construct high-resolution photographic logs of conglomerates within the Newark geological terrane near Glastonbury, Connecticut. Detailed overlapping images were collected with a full-frame camera and Agisoft Photoscan (AP) photogrammetric software was used to build 3D models. As well, images of rock core were used to create detailed photo logs in Adobe Photoshop, and virtual cores in AP. Model data was further manipulated to visualize and measure the conglomerate. For example, Cloud Compare software was used to unroll a 3D core segment in order to examine and measure bedding, fractures and particle sizes. Also, models were exported as .STL files and used to create 3D prints of portions of the outcrop. Techniques presented in this project illustrates the many ways in which new 3D modeling can be used for geological visualization and analysis.

Jennifer Croteau is a junior from North Kingstown, Rhode Island. She is currently studying environmental earth science with a biology minor and plans to work in conservation.

VR Medical Diagnostics: A Teaching Tool

Laura Netti

Faculty mentor: Ann Billetz

Massachusetts College of Liberal Arts

The purpose of this project was to design a virtual reality application used as a tool for teaching medical diagnostics. The application consists of a 3D human body that students can see and interact with in a virtual environment. Students are given a case study within the virtual environment with symptoms. Students can virtually touch the body and assess it, allowing them to come to the proper diagnosis. Currently, I have developed the scenario for strep throat diagnosis, however, this application has the potential to focus on specific parts of the body, such as the heart or respiratory system. Ultimately, this application gives students a better visual understanding of what is involved in diagnosing a medical condition. This application was accomplished by using Autodesk Maya to create the necessary 3D assets. C# and Unity Engine were used to program and render user interactions with the virtual environment.

Laura Netti is a junior with a major in biology and a concentration in biotechnology. She is from Clarksburg, Massachusetts. After graduation, she plans to attend graduate school with the goal of doing research in the biotechnology field.

The Impact of Empathy and Cost on Helping Behavior

Chelsea Tanco, Savannah Buckley, and Anastacia Howard

Faculty mentor: Gretchen Sechrist

Mansfield University

Empathy and cost have been shown to be influential in determining individuals' levels of helping behavior; however, researchers have yet to examine the impact of authority figures on one's willingness to help. In the current study, undergraduate students were induced to feel empathy for another student or not and then were asked to respond to a request from a professor (authority figure) or another student to help that peer. Results showed that participants in the empathy condition were more likely to help regardless of who asked them to help. In addition, students were slightly more likely to help when an authority figure requested the help. Implications regarding helping behavior are discussed.

Chelsea Tanco is a senior psychology major with a concentration in counseling. She is from Apalachin, New York and plans to attend graduate school to pursue a degree in mental health counseling.

Savannah Buckley is from Easton, Pennsylvania. She is a senior psychology major who plans to attend graduate school to pursue a degree in developmental psychology.

Anastacia Howard is from York, Pennsylvania. She is a senior psychology major who plans to go to graduate school.

Amnestic Heterosexism and Bystander Responses to Anti-Gay Bullying

Tess Ramos-Dries

Faculty mentor: Jennifer Katz

State University of New York at Geneseo

Amnestic heterosexism (AH) reflects the belief that, in contemporary society, people who are lesbian, gay, or bisexual (LGB) no longer experience discrimination related to sexual orientation. We investigated potential associations between individuals' AH beliefs and their responses to anti-gay bullying. Heterosexual undergraduates (N = 238) completed a measure of AH before responding to a scenario in

which a man accuses another man of being a “fag.” As expected, those with greater AH beliefs perceived the situation as less severe/dangerous, felt less personally responsible to intervene, and were more blaming toward the target of bullying. In multivariate analyses, AH was indirectly associated with intent to confront the perpetrator via a path of reduced personal responsibility. Our results indicate that beliefs denying the existence of discrimination based on sexual orientation reduce feelings of personal responsibility to address anti-gay bullying. Low personal responsibility inhibits confrontation of those who perpetrate bullying behaviors.

Tess Ramos-Dries is from Queens, New York. She is a senior psychology major with plans of becoming a speech therapist.

News Source Quantity and Political Ideology Effects on Perceived Credibility of Alternative Facts

Olga Bilardi, David Sweeney, Jessica Hann, and Anna Monk

Faculty mentor: Francis Craig

Mansfield University

The current study examined the effects of news source consumption and political ideology on the perceived credibility of "alternative facts." A convenience sample (N=138) of Mansfield University students were given a demographic inventory, a collection of 50-item news statements that represented factually true and false information, news source consumption checklist, and a political typology scale. It was found that for liberals the volume of news source consumption was inversely related to the perceived credibility of news statements. Additionally, ideologically conservative consumers were found to be more likely to perceive fake conservative news statements as credible than are liberal consumers. Both liberal and conservative participants rated fake liberal news as less credible. In analyses of credibility ratings of factually accurate news, conservative and liberal participants rated factual news items (whether conservative and liberal) as similarly credible.

Olga Bilardi is a junior psychology major who was born in Russia and was raised and currently resides in Roaring Brook Township, Pennsylvania. Bilardi's future plans include pursuing graduate work in educational psychology.

David Sweeney, a junior psychology major, was born, raised, and currently resides in Jersey Shore, Pennsylvania. Sweeney's future plans include pursuing graduate work in clinical/mental health psychology.

Jessica Hann is a senior psychology major, born in Manhattan, New York, who currently resides in Gillett, Pennsylvania. Hann's future plans include finding a job in the counseling field and possibly pursuing a Master's degree in psychological research.

Anna Monk is a junior psychology major, born and raised in Tioga, Pennsylvania. Monk's future plans include attending graduate school and pursuing a job in the local area.

Statistical Prediction Model for Human Intelligence Tasks

Shijie Wang

Faculty mentor: Erin M. Kiley

Massachusetts College of Liberal Arts

Despite the great advances made in computing technology in recent decades, there remain tasks that computers are unable to perform, such as transcribing video or identifying subjects of photographs. Such tasks, called Human Intelligence Tasks (HITs), are commonly assigned by Requesters and performed by Workers via crowdsourcing platforms in exchange for small monetary rewards. This research aims to reverse-engineer the procedure by which rewards are determined by the Requester, utilizing available GPS and price data. Ultimately, we also devise a method for predicting new tasks and their rewards. Our solution begins with multivariate statistical analysis to determine a relation between GPS data and price distribution; to mitigate the challenges posed by high dimensionality, we introduce Comfort Zones, based on K-means Clustering analysis, to determine the influential variables. Non-linear regression and a Central Price Model are used to re-price the tasks. Multi-layer perceptron neural networks are used to verify the model.

Shijie Wang is an exchange student from the Shanghai University of International Business and Economics in China. Wang's major is applied statistics.

ORAL PRESENTATIONS

SESSION 1

9 to 10:15 am

Room 312

New Methods to Probe and Explore Magnetoelastic Properties of Amorphous Ferromagnetic Alloys

Lindsey J. Gray

Faculty mentors: Catalin Martin and Philip Anderson

Ramapo College of New Jersey

The strong magnetoelastic coupling in amorphous ferromagnetic alloys is currently guiding the development of various physical, chemical and biological sensors. The common procedure is to excite a strip of alloy with an AC-generated electromagnetic field, which produces mechanical vibrations via magnetoelastic coupling. These mechanical vibrations are sensitive to the medium in which the strip is placed, allowing the strip to detect changes in pressure, temperature, viscosity, density, or chemical composition of the medium. This research presents two relatively new approaches in probing and exploring the magnetoelastic effect in these strips. The first method involves mechanical, instead of magnetic, excitation of the strip. The second technique utilizes a RF-resonator for contactless measurements of magneto-impedance effects. Measuring this response is particularly important for potential use of amorphous magnetic alloys in the development of energy harvesting devices.

Lindsey J. Gray is a senior engineering physics major. She is minoring in mathematics and computer science and plans to pursue a PhD in applied physics after graduation.

Potential Climatic Impact of Bioengineered Crop Albedo Change in United States

Forest Swaciak

Faculty mentor: Stephen Tulowiecki

State University of New York at Geneseo

This research determines the potential effects on global climate if bioengineered crops with higher albedo values are grown in the United States. Albedo is a measure of sunlight reflected off a surface and is denoted as a decimal value representing the percent sunlight reflected. Surfaces with a lower albedo reflect less sunlight and absorb heat, thus contributing to warmer surface temperatures. To counteract climate change through geoengineering, attempts to raise albedo are being studied, including through bioengineered crops. A 2011 USDA land cover dataset at 30-meter resolution was used to determine the total area of different crops. ArcMap 10.4 GIS software was used to determine the change in albedo and which states would experience the greatest albedo increases. States showing the highest potential albedo change from bioengineered corn and soy are Iowa (.16 to .19) and Illinois (.16 to .19).

Forest Swaciak is a senior geography major from Franklinville, New York. He plans to work for the U.S. Forest Service after graduation.

Environmental DNA Detection of American Eels in a Controlled Setting

Josh Grassi

Faculty mentor: Greg Moyer

Mansfield University

Environmental DNA (eDNA) is an emerging technique for detecting aquatic organisms. Basically a species' DNA can be detected from a water sample; therefore, it offers increased sensitivity over traditional detection methods, especially for nocturnal, bottom-dwelling organisms. One such organism is the American eel. In order for this method to be applicable in the field, often controlled experiments are performed first. We tested the hypothesis that detection of American eel eDNA increases with eel density. Density was allowed to vary from 0, 1, 5, or 10 eels held in tanks and our experimental design was run in triplicate. From each tank, a 2-L water sample was collected, filtered, and DNA extracted. DNA was amplified to determine presence/absence of eel DNA. From these data we estimated the probability of detection for each density trial. We expect that there should be a significant positive correlation between detection probability and density.

Josh Grassi is a senior fisheries biology major from Butler, Pennsylvania. He plans on furthering his education at the graduate level following graduation in May 2018.

Where Have All the Good Students Gone?

Luke Davis

Faculty mentor: Meredith Metcalf

Eastern Connecticut State University

More than fifty-percent of public schools across the United States were identified as under-performing in 2015. Hartford, Connecticut is no exception as public schools continue to perform below the national average. A multivariable regression analysis was performed to examine both internal and external factors and determine what drives the low performance. Internal factors examined included ethnicity of students within each school, students who qualify as low income, and classes taught by qualified educators. External factors considered were ethnicity, need for financial assistance, educational attainment, and crime within the neighborhoods surrounding each public school in Hartford. Results from the multivariable regression indicated that ethnic groups of students enrolled explained 44% of observed school performance levels. External factors only explained 15% of school performance yet no variables were identified as statistically significant. Results suggest that Hartford should focus on individual schools, and the students within, to enhance student performance.

Luke Davis is from Southington, Connecticut and is currently studying environmental earth science with a minor in Geographic Information Systems (GIS). He will be graduating this coming May and hopes to join the GIS community performing geospatial and statistical analyses on various topics.

Room 314

Too Little, Too Late: Is Political Representation Suffering due to Suffrage Laws?

Kaitlin Wright

Faculty mentor: Samantha Pettey

Massachusetts College of Liberal Arts

While the number of women in elected office has grown dramatically since the Year of the Woman (1992), women's representation is still comparatively low. This paper examines female suffrage laws and their effect on women in state legislatures. While previous research explores why women run for office, this paper addresses a new, institutional explanation as to why women's representation differs across states. I argue that states which enacted more lenient and early women's suffrage laws (prior to the ratification of the nineteenth amendment) have a greater number of women in elected office today. The more lenient suffrage laws created a political culture that promoted gender inclusiveness in state politics. I used a linear regression to test the effect of suffrage on number of women in office. Overall, this paper aims to understand how past laws have had unintended but negative, long-term consequences on women's descriptive representation in politics.

Kaitlin Wright is a double major in political science and history, in her senior year (class of 2018). She is from Haverhill, Massachusetts. She would like to attend graduate school for either political management or public policy and eventually, run for elected office.

Rank Up: an Autoethnography on Masculinity in a Gaming Space

Thomas Morel

Faculty mentor: David C. Oh

Ramapo College of New Jersey

As of 2005, "The North American video game industry consists of a well-educated and technically skilled workforce that is 85–90% male." This autoethnography shows how the overwhelmingly masculine gaming space, specifically competitive gaming, shapes and affects a male identity, analyzed from a personal perspective. The research concluded that the hypermasculine media culture found in video games causes one to imitate and behave in harmful ways to women and men to fit into that culture. It also found that one can use the hypermasculine gaming space to feel a sense of empowerment that may not be in the real world. Finally, the essay discusses the important cultural implications of the research and how personal experiences can be related to a broader societal outlook. The findings show that not only are singular gamers affected by the hypermasculine gaming space but also American society as a whole.

Thomas Morel is a senior communication arts major with a concentration in global communication and media. He plans to pursue a career in major film production.

Abortion in American Political Discourse

Colleen Willis

Faculty mentor: Emily McGill

Keene State College

This paper attempts to assess American attitudes towards abortion in the years following the landmark Roe v. Wade Supreme Court decision. An issue often debated in ethics, whether or not abortion should remain legal often comes down to whether or not the fetus is a human life. While important in and of itself, this debate was not a conspicuous element of American politics until 1978 when it revealed itself during the midterm elections of certain states. This means that the landmark 1973 Supreme Court case Roe v. Wade did not spark the debate. If a legal change could not prompt a widespread moral outcry,

what could? The answer is religious and political figures. While Americans are debating the morality of abortion, a more important debate should be taking place: why is the issue being leveraged by those in positions of power?

Colleen Willis is a senior political science major from Keene, New Hampshire. She plans to pursue graduate study in public policy with an emphasis on women's issues.

The Reflection of Color: the Global Use of Complexion Altering Products

Meghan Murphy

Faculty mentor: Atsushi Tajima

State University of New York at Geneseo

This study explores the connection between media usage and the use of complexion altering products, along with the complexity of skin color and its relationship to the beauty standard. With the expansion of media throughout the globe, a new standard of beauty has been created. Women of color are using skin-bleaching creams to lighten their skin, while white women are tanning in order to become darker. This study documents the relationship that the women who use these products have with media and their own self-images. The research reveals a dependency on media to create beauty standards, suggesting that media is influencing these women to do harm to themselves.

Meghan Murphy is a senior communications major with anthropology and women's and gender studies minors. While she is originally from Bayport, New York, she is planning on moving to the west coast to continue her studies and work towards a Master's degree in social work.

Room 317

Women, Strikes, and the Early Labor Movement: An Exploration of Union Strategy from 1870-1910

Julia Underhill

Faculty mentor: Niti Pandey

Eastern Connecticut State University

This paper examines the role of women in the early American labor movement, between the years 1870 and 1910. An increased presence of female workers in the labor force was seen by many union organizations as a social and economic threat, stunting women's ability to participate in union labor reformation. Emphasis is placed on the prejudicial strategies of the Knights of Labor (KOL) and American Federation of Labor (AFL), followed by the more inclusive nature of the Industrial Workers of the World (IWW). Regardless of these setbacks, many tradeswomen did unionize, and this paper profiles efforts of successful groups. Influential women from these organizations are profiled and an analysis of their portrayal as anarchists presented. This paper critiques the lack of literature on this topic and concludes with commentary on how the strategies of dominant early labor organizations ultimately influenced the contributions of women to the American labor movement

Julia Underhill is from Franklin, Connecticut. She is a junior majoring in labor relations and human resource management with minors in pre-law and history.

Ancient and Contemporary Representations of Women in the Media

Esther Hethcox

Faculty mentor: Jennifer Barry

University of Mary Washington

The attention and research regarding female martyrs in Early Christianity by scholars and historians is a curious endeavor, due to historical female figures being rarely sought after and critiqued. However, female martyrs are an interesting subject for scholars, due to the restrictions women faced in those societal times and the advantages martyrdom brought the female sex. In this conference presentation, I will be discussing how ancient forms of media accounts found in martyrologies not only displayed what stereotypes women faced—due to their sex and social status— but how their acts of courage and endurance transformed them from a feminine body to one seen as masculine.

Esther Hethcox is a women's and gender studies major and intends to pursue graduate studies upon the completion of her degree.

Our Inherent Flaws: the Harmful Stereotypes Western News Reporting Propagates About Muslims

Callista Fiegl

Faculty mentor: Atsushi Tajima

State University of New York at Geneseo

This paper analyzes Western news reporting of several terror attacks, specifically the Charlie Hebdo shooting in January 2015 and the Paris attacks in November 2015. In doing so, the paper examines the way Western news organizations produce, frame, and write their stories, leading to the creation of three themes that perpetuate prejudice and bias about Muslims and the Arab race: one, us versus them or West versus Middle East; two, all Muslims are terrorists; and three, Western lives matter more. In conclusion, this paper discusses the potential harm this type of reporting may cause Muslims and Arabs who call America their home.

Callista Fiegl is a senior journalism and media major from Springwater, New York. After school she intends to go to France to teach English as a second language and then continue her schooling.

Identity Crisis: how the Outcome of the Cold War Affects Our Understanding of the Crisis in the Ukraine

Sara Catherine Lichon

Faculty mentor: Tae Kwak

Ramapo College of New Jersey

This research argues that the outcome of the Cold War aids our understanding of the current Ukraine Crisis. It sheds light on the identity crises that Ukraine, Russia, and the United States faced after the Soviet Union collapsed and explains how these new identities clashed. This presentation focuses on Eastern Ukrainians, Western Ukrainians, Russia, and the United States. The tension between East and West Ukraine are due to ethnic and political identity differences that surfaced after the collapse of the Soviet Union. With the Russian government attempting to regain its identity as an empire by intervening

in Ukraine and the U.S. government trying to protect the New World Order, these conflicting identities have culminated into the current Ukrainian crisis that the world faces today.

Sara Catherine Lichon is a senior history major and international studies minor and is the author of "Identity Crisis," which was recently published in The Augsburg Honors Review. Lichon is extremely interested in how the past led to the present and plans to pursue a career in government.

SESSION 2

10:30 to 11:45 am

Room 312

Emotional Responses Elicited by Communal Meditation Compared to Solitary Meditation

Giovanna Donahue

Faculty mentor: Steven Derne

State University of New York at Geneseo

In her book *Deep Listeners*, Judith Becker discusses the differences between meditation and trance. She explains that meditation is supposed to be done in solitude, silence and stillness in order for an individual to be freed of emotions. She does not address the effects of meditation in a group setting rather than in solitude. This study aims to address the difference in emotional responses and emotional connections elicited by communal meditation versus solitary meditation through sociological introspection. I participated in both solitary and communal meditation, holding all of Becker's other factors constant, and documented my experiences. After reflecting on those experiences, I found that communal meditation increased feelings of emotional connectivity and elicited a positive emotional response, whereas solitary meditation decreased feelings of emotional connectivity and elicited a negative emotional response. Both experiences resulted in the same physical response.

Giovanna Donahue is a senior psychology major, sociology and sociomedical sciences minor from Rochester, New York. She is currently applying for a job with the FBI for after graduation and considering going on to get a Master's degree in criminal psychology or forensic psychology.

Instagram Happiness: PDA and Relationships

Brianna Burkert

Faculty mentor: David C. Oh

Ramapo College of New Jersey

On Instagram it is possible to have many people view your posts about a significant other. This paper looks at the possibility of this being problematic in terms of happiness in a romantic relationship. Using an online survey, Instagram use and happiness in a romantic relationship were tested. I examined if posting and interacting, maintaining oneself on Instagram, and/or approval seeking behavior correlated to happiness, or a lack of happiness, in a romantic relationship. The results indicated that maintaining oneself on Instagram and approval seeking behavior were somewhat related to happiness or unhappiness in a relationship, illustrating just how much social media can affect contemporary relationships.

Brianna Burkert is a junior communication arts major with a concentration in global communication and media and a minor in sociology.

Live Like a Square: Developing a Reentry and Reintegration Program for Corrections

Thomas Probst

Faculty mentor: Jeremy Olson

Mansfield University

This presentation will review a corrections program created by the presenter to reduce recidivism, decrease jail populations, and develop skills among the inmates that they can employ in society. The program will begin while the inmates are incarcerated and continue once they're reintegrated back into society. It will utilize research and processes in the development, implementation and evaluation of a pilot correctional reintegration program. The research methodology to be employed in evaluations is mixed methods, to include survey and recidivism data analysis and participant/stakeholder interviews.

Thomas Probst is a junior criminal justice administration major. He lives in Williamsport, Pennsylvania, where he is employed at Lycoming County Pre-Release Center and where he hopes to remain so employed upon graduation.

Ancient Rhetorical Strategies and the Sexualized Other

Julia Mitchell

Faculty mentor: Jennifer Barry

University of Mary Washington

In his writings John Chrysostom, an influential bishop of the fourth century, goes through much effort to separate Christian identity from others often at their expense, particularly when it comes to early Jewish and Christian identities and how they are perceived. In this conference presentation, I will discuss how Chrysostom dehumanizes and hypersexualizes Jewish people as a way to valorize the Christian Virgin. In doing so, he separates the Christian identity from the Jewish identity by formulating ideas about gender and sexuality that either demonize or glorify these groups.

Julia Mitchell is a native of Northern Virginia and is a double major in religion and women's and gender studies. They intend to pursue non-profit work upon graduation.

Room 314

The Politics of Sister Wives: is Polygyny Misogynistic?

Jimmy Grissman

Faculty mentor: Rebecca Root

Ramapo College of New Jersey

In modern America, individual perceptions about polygamy are heavily influenced by reality television. Since polygamy is unlawful and uncommon, the sole source of regular information the American public receives about the topic is through splices of edited recordings. Polygamy is turned into a spectacle that viewers are encouraged to engage with through a one-sided interaction. This paper compares the representation of polygamy in reality television and anthropological studies. Throughout this paper, I attempt to answer the question of whether polygyny is inherently misogynistic. Scholarly research contradicts the dominant way polygamy is perceived by showing that there is no universal polygamous

experience. From an anthropological perspective, reality shows hide the reasons behind polygamy's existence and present it as a form of cultural inversion, rather than an international phenomenon.

Jimmy Grissman is a junior international studies major with a minor in Spanish. He works on campus as Editor of the Ramapo Journal of Law and Society and as a Resident Assistant.

A Disputation: Lucrezia Borgia, Female Virtue, and the Hall of the Saints

Nina Wutrich

Faculty mentor: Marjorie Och

University of Mary Washington

In June of 1493, a wedding was held in the Apostolic Palace of the Vatican. This marriage was a political match between the thirteen-year-old daughter of Pope Alexander VI Borgia, Lucrezia, and Giovanni, a member of the powerful House of Sforza. The suite of rooms in which this celebration was held, the Borgia Apartments, was decorated with biblical and hagiographic scenes by the artist Pinturicchio. Here, I argue that a certain room in the Apartments, the Hall of the Saints, was painted with portraits of Lucrezia in the guise of these holy female figures. These frescoes were intended to serve a didactic purpose: they were meant to display Lucrezia's virtues through her comparison to these characters. Through an analysis of hagiography and iconography, as well as comparison with known portraiture, I assert that the Hall of the Saints contains images of Lucrezia Borgia.

Nina Wutrich is an art history major from Fairfax, Virginia. After graduating in May 2018, she plans on attending a graduate program in art history.

Rape Culture in "The Rape of Europa"

Raina Salvatore

Faculty mentor: Alla Myzelev

State University of New York at Geneseo

My research delves into and focuses specifically on Titian's "The Rape of Europa" in order to demonstrate how the glorification of rape scenes in High Renaissance/Mannerist art becomes acceptable and remains acceptable in the 21st century. I will contend that this stems from a reverence for academia that allows scholars and art voyeurs leeway in their observation and acceptance of rape. Additionally, I will also speak about the compromising ethical views that this painting poses to viewers, and how they contribute to a rape culture that arises and persists into the 21st century today.

Raina Salvatore is an English major with a double minor in history and art history, with postgraduate plans to attend law school.

Margaret Atwood Sheds Light on Subjugation of Characters in *The Penelopiad*

Adam Setzer

Faculty mentor: Lynn Pifer

Mansfield University

In my paper, I explore Margaret Atwood's novel *The Penelopiad* and compare Atwood's version to the original epic, *The Odyssey*. I argue that Atwood's interpretation of Penelope and her maids was made to show the misogyny of the original text, and that Atwood developing these characters was done to challenge *The Odyssey*. I explore the origins of the characters that Atwood provides which were not discussed in the original epic. I argue that Atwood providing the audience with the origins to her characters further develops them and sets up the voices that she creates in her novel that she eventually uses against sexist characters like Odysseus, and a judge that Atwood creates in a fictional court scene defending the maids. I discuss the trivialization of the maids' rapes and executions, and explore the idea of their suffering gone unnoticed.

Adam Setzer is from Corning, New York. He is a professional writing major.

Room 317

What the Fox?! Effects of Emotional Controlled Expression with Pseudo-Swearing on Mood State

Morgan Vallie, Taylor Chidester, Katriel Sadwick, Brooke Cervoni

Faculty mentors: Francis Craig and Gretchen Sechrist

Mansfield University

This study sought to examine the effects of emotional controlled expression on mood states through pseudo-swearing. From previous research on swearing and examining the new idea of pseudo-swearing, researchers hypothesized that negative expression of emotion (swearing/uncontrolled) will lead to lower mood state and an increase in stress levels. In comparison, the researchers hypothesized that positive expression of emotion (pseudo-swearing/controlled) will lead to increase in mood state and a decrease in stress levels. Results showed support for all hypotheses with significant findings that were consistent with previous research.

Morgan Vallie is from Carlisle, Pennsylvania. She will be graduating in August of 2018 with a degree in lifespan development psychology and counseling and wants to pursue a career in play therapy.

Brooke Cervoni is from Horseheads, New York. She is a senior forensic psychology major and plans on finding a job in the criminal field.

Katriel Sadwick is from Rochester, New York studying psychology. After graduation, she plans on going into art therapy.

Taylor Chidester is a senior psychology major with a mind and body concentration. She is from Johnson City, New York and plans on going into research.

The Ability of Group Meditation to Facilitate Emotions

Emma Gerrol

Faculty mentor: Steve Derne

State University of New York at Geneseo

This study is based on the proposition mentioned in Mukerjee's reading which states that meditation is a solemn experience in which emotions transcend the person practicing; but it neglects to address the

possibility that emotions are in fact involved in meditation, especially when the meditation is practiced in a group setting. The method applied to answering this question was meditating as a group and observing my own feelings during and after the meditation. The results of this study indicated a slight difference in emotions, however I did not experience a feeling of emotional connection to the other group members. This study allowed us to look deeper into the emotions involved in meditation and the possibilities to heighten those positive emotions as well as whether it is possible to experience an emotional connection without actually speaking to other people, but simply by sharing an experience.

Emma Gerrol is from Delmar, New York and is a senior. She majors in psychology and sociology and plans to get a Master's degree in social work after graduation.

The Experience of Pain: the Impact of Personal Characteristics on Perceptions

Reeve Olivia Harden

Faculty mentor: Nicholas Salter

Ramapo College of New Jersey

Pain is a partially subjective experience for both the people experiencing pain and the observers. Personal characteristics of individuals in pain, such as age and gender, can influence the sympathy others feel toward them and others' perception of the pain severity. Additionally, characteristics of the observer impact how the pain of another person is perceived. In this study, participants were presented with a pain scenario and answered questions about their own personality, the sympathy they felt toward the person, and how severe they perceived their pain to be. The results revealed that people felt more sympathy toward children than adults; however, no significant differences in sympathy or perceived severity were found between males and females experiencing pain.

Reeve Olivia Harden is a junior majoring in psychology with a minor in neuroscience. She is the co-manager of the LGBTQ Research Lab at Ramapo College of New Jersey. She plans to attend a doctoral program in clinical psychology after earning her Bachelor's degree.

A Fight of a Different Kind

Jennifer Wilson

Faculty mentor: Anna Jaysane-Darr

Massachusetts College of Liberal Arts

This paper draws on research that seeks to explore former refugees that have made a career out of a combat sport such as Mixed Martial Arts (MMA), Judo, and Taekwondo. The goal of the research is to examine the reasons why this phenomenon exists among some refugee populations. Preliminary hypotheses to this question involve the role of trauma and healing, cultures, and nationalism in the formation of these refugees' careers. The presentation of mini-case studies aid in elucidating the findings of my research. The paper will utilize background research on the motivations for the study and practice of combat sports as well as data involving sport in general in the lives of refugee populations.

Jennifer Wilson is a senior sociology major with a double minor in anthropology and history from Long Island, New York. After graduation she would like to pursue a PhD in anthropology and spend a couple of years serving in the Peace Corps.

PERFORMANCE**North Manser**

Korean samul nori

Samul Jeonsa

Faculty mentor: Okon Hwang

Eastern Connecticut State University

Samul nori is a Korean traditional music genre that first came about in the late 1970s. The roots of Samul nori is a folk music tradition known as p'ungmul or nongak ("farmers' music"). P'ungmul was a functional music and performed by mostly amateur musicians, and its primary purpose was to entertain villagers on rural holidays or other celebratory events. Its modern offspring samul nori is typically performed by trained musicians in a more virtuosic manner using only four percussive instruments from the p'ungmul tradition. In fact, samul nori's rough English translation would be "playing four objects," and the origin of these four instruments and their performance techniques are intrinsic to understanding how samul as a genre has evolved over the years to reflect the continual process of experimentation and modification for artistic reasons.

Performers: Jason Crocker, Noah Lerch, Glenden Merrell, Hannah Nilsson, Sun Tae Park, Joshua Perry

ORAL PRESENTATIONS

SESSION 3

1:15 to 2:15 pm

Room 312

Autism through the Eye of the Camera

Alex Woody

Faculty mentor: Jiwon Ahn

Keene State College

This paper considers the portrayal of Autistic people in film and television, and questions concerning how it's currently being done and what steps can be taken to improve the representation. While we have advanced in many aspects of representation over the course of recent history, one of the areas we require the most improvement in is the representation of Autistic people. The paper examines examples of different representations and goes into detail about what makes some of them work well and others not so well. The author knows firsthand how dehumanizing the most popular views of Autism can be and how good it can feel to finally see something that views you as a human being--not someone who is entirely defined by their Autism.

Alex Woody is a film major from New Hampshire. He is interested in learning about how films impact the world.

Technology, Family, and Semiotics in *Videodrome*

Paul Brennan

Faculty mentor: Todd Barnes

Ramapo College of New Jersey

This presentation is a cultural criticism of *Videodrome*, considers its semiotic structure, and concludes with a deconstruction of its central binaries. I focus on the ways that anxieties arising from widespread access to home video technology manifest themselves in the film, specifically interactions between antagonistic covert groups and an unmarried, childless protagonist. This interaction leads into the semiotic analysis. The fictitious technologies these covert groups use on the protagonist blur the lines between video and reality in a manner both physically horrific and disorienting. The binaries that allow the narrative to propel itself forward are then deconstructed: between "normal" and snuff or "degenerate" entertainment, between more traditional shots and those that are enveloped by in-film screens, and between scenes that feature dramatic amounts of gore and those that do not. The deconstruction underlines the simultaneously unstable and symbiotic nature of the film's seemingly disjointed components.

Paul Brennan is a senior literature major at Ramapo College of New Jersey.

Taking the Same Journey in Homer's *The Odyssey* and Tarantino's *Django Unchained*

Jessica Lowman

Faculty mentors: James Guignard and Lynn Pifer

Mansfield University

This paper examines the similarities and differences faced by the heroes Odysseus and Django throughout their voyages. While the stories were written centuries apart, they loosely follow the pattern outlined by Joseph Campbell regarding any heroic journey. Both Odysseus and Django experience separation, departure, initiation, and return phases that they must pass through. While Odysseus and Django follow these steps, they offer up their own unique attitudes and motivational drives. While Odysseus's background of royalty conflicts with the slave background of Django, both still aim to reunite with their wives. The heroes still endure the same circular journey of facing challenges and returning home, however motivated differently they walk the same path.

Jessica Lowman from Sayre, Pennsylvania is a twenty-two-year-old English major attending Mansfield University. After graduation Jessica plans to work in social media or entertainment-based fields.

Room 314

High School English Class and its Role in the Search for Meaning

Cassandra Fenton

Faculty mentor: Lisa Cassidy

Ramapo College of New Jersey

Most graduates of America's public schools share the common experience of high school English class. Thirty-six states mandate four years of English to qualify for high school graduation. This implies that educators and legislators deem English classes valuable for high school graduates, and most of us likely share the assumption that familiarity with American literature is vital to becoming an educated member of society. However, research raises questions about the actual impact of high school English on society. This paper analyzes the perceptions of high school English classes from the perspectives of both students and teachers. It examines the roles that money and standardized testing play, as well as the most effective practices for improving the quality of an English class. This research suggests how literature curricula can be improved to become more meaningful.

Cassandra Fenton is a senior political science major pursuing a certification in elementary education. She is a member of the Honors Program, a Peer Facilitator, a member of the Theater Honor Society (AYO), Vice President of French Club, and Co-President of the International Honor Society of Education (KDP).

Analysis of Seasonal Temporal Variation of Soundscapes in Western New York

Jeff Doser

Faculty mentor: Kristina Hannam

State University of New York at Geneseo

Analysis of soundscapes, the given sounds in an area, may provide a way to quantify the biodiversity of an area. We present analyses of the seasonal temporal variation of four soundscapes in western New

York. Specifically, we determined whether seasonal variation of biodiversity was reflected in these soundscapes by using soundscape-derived measures of biodiversity. I obtained soundscape recordings once in the early summer months from May-June and once in the late summer months from August-September. Using R Statistical Software, I determined the Acoustic Diversity Index (ADI) and the Acoustic Complexity Index (ACI) for each soundscape. These indices use different properties of sound to make a prediction of how much biodiversity is encompassing a given soundscape. Using multiple statistical tests, I then compared these values across the two seasonal periods to understand how these measures of diversity changed with the seasonal gradient.

Jeff Doser is a biology and mathematics double major from Penfield, New York. Upon graduation, he is planning on attending graduate school and performing research in the field of soundscape ecology.

Analysis and Composition of Romantic-Era Chromaticism

Geoffrey Edwards

Faculty mentor: Heather Gilligan

Keene State College

Historical composers who lived during the Classical and Romantic eras wrote works that demonstrate traditional tonal harmony layouts. While early classical pieces adhered to more traditional formulas of harmony and structure, composers began pushing the boundaries by applying levels of chromaticism that had not been present in earlier works. These creative applications of chromaticism expanded the possibilities of tonal harmony along with concepts which are still practiced, applied, and studied in the present era. This presentation will discuss the analysis and application of chromaticism through three piano works written by three different composers: Ludwig van Beethoven's "Piano Sonata Op. 13 No. 8"; Franz Schubert's "Piano Sonata Opus 53"; and, Alexander Scriabin's "Prelude No. 1" from his "Twenty-Four Preludes for Piano". Afterwards, I will demonstrate how I applied these chromatic scenarios in a composition of my own, "Piano Sonata in C major".

Geoffrey Edwards, from Bayport, New York, is majoring in music technology and music composition. He plans to go for a Master's degree in music theory by studying abroad in Europe and eventually work toward a Doctorate in musical arts, also for music theory.

Room 317

Homoeroticism, Racial Passing, & the "Tragic Mulatto" Archetype in Nella Larsen's *Passing*

Lianne Gallant

Faculty mentor: Jenna Sciuto

Massachusetts College of Liberal Arts

Published in 1929, Nella Larsen's *Passing* appears to be solely about race relations during the Harlem Renaissance. Such traditional interpretations of the novella, however, often ignore the homoerotic subtext present and overlook the social implications of such intrinsically interwoven identities. By conducting literary analysis through an intersectional lens of race, gender, and sexuality, I argue that the character Clare Kendry fulfills the trope of the tragic mulatto found throughout African-American literature.

Lianne Gallant is a junior English/communications major from Boston, and would like to teach literature, after graduate school.

The Barbarians of Hollywood: The Exploitation of Aurora Mardiganian by the American Film Industry

Samantha Brault

Faculty mentor: Paul Vincent

Keene State College

As the first genocide of the 20th century tore through Ottoman Turkey, advances within the film industry opened new doors for humanitarian aid. The story of Aurora Mardiganian, a teenage Armenian survivor, provided Americans with a visual representation of what mass atrocity looked like through the film *Ravished Armenia*. However, the means to which the film and accompanying autobiography were created exemplify a violation of ethics. Anthony Slide's edited edition of *"Ravished Armenia" and the Story of Aurora Mardiganian* offers an insightful account of Mardiganian's plight, and gives evidence to the claim that she was exploited physically, psychologically, and financially in order to yield the maximum profit. Mardiganian's legacy highlights the need for remembrance over apathy, and active awareness over indifference.

Samantha Brault is a senior Holocaust and genocide studies major from South Hadley, Massachusetts.

The Effectiveness of Snapchat and Instagram as Promotion Tools: an Experimental Study

Jerard Guevarra

Faculty mentor: Christine Chung

Ramapo College of New Jersey

Social media on mobile apps are an increasingly important part of omnichannel retailing because consumers use social media apps for product information-sharing. In addition, the adoption and usage of apps for marketing purposes have grown exponentially over the past few years. Snapchat is an image messaging and multi-media mobile application. Instagram is a social networking app made for sharing photos and videos from a smartphone. This study investigates consumers' motivations behind usages and attitudes toward product messages and the effect on online shopping perspectives.

Jerard Guevarra is a senior in the Anisfield School of Business at Ramapo College of New Jersey. He is majoring in marketing and economics.

Since 2009, the Council of Public Liberal Arts Colleges has published a semi-annual online journal of scholarship and creative activity called *Metamorphosis*. More than 100 papers, posters and performances have appeared in the journal, which is hosted on the COPLAC website at

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Work published in *Metamorphosis* is selected by faculty mentors and review committees on each member campus. Your work has been selected for presentation at the Northeast Regional Conference and is therefore eligible for publication in the fall 2017 issue. The official style sheet and instructions for publication are outlined below. If you have more specific questions about the process, please speak with the COPLAC staff during the conference or email bailey@coplac.org.

We look forward to highlighting your work in our campus-reviewed North American journal.

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- Document must be in MS Word
- Title this document with your last name and school acronym (for example, Claire Bailey at UNC Asheville would title her Summary Document baileyunca)
- In this document please list the following in this order:
 1. Title of Presentation
 2. Author(s)
 3. Faculty mentor(s)
 4. School
 5. 100-150 word abstract (submissions over the 150 word limit will be edited)
 6. Up to 5 keywords related to your submission

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This is your actual paper.

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Asheville, NC 28804
828-350-4590
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