

The 38th Annual **SCHOLARS DAY**



VIRTUAL EVENT

**Monday, April 19, 2021 at 7:00 AM -
5:00 PM on Friday, April 30, 2021**

symposium.foragerone.com/brockport21



PRESIDENT WELCOME

Dr. Heidi Macpherson



DIRECTOR OF UNDERGRADUATE RESEARCH

Dr. Adam Rich, Professor, Department of Biology



View Scholars Day 2021: symposium.foragerone.com/brockport21
Monday, April 19 at 7:00am - 5:00pm on Friday, April 30

Scholars Day 2021

SUNY Brockport's Scholars Day was instituted in 1984 through the efforts of the College Senate. Scholars Day has continued as a celebration of scholarly pursuits and creative activities by the campus community. **This marks Brockport's 38th year of celebrating scholarship and artistry on our campus!**

This annual signature campus event, which provides students, faculty, and staff the opportunity to present academic and creative work, is typically a day when classes are suspended so the entire campus can participate. Last year, Scholars Day turned virtual to continue efforts of showcasing creative activities of our campus community through the Pandemic. This year, we've been able to reimagine Scholars Day and plan a two-week event which includes both LIVE presentations and RECORDED poster/verbal presentations.

Join us in celebrating success!

Monday, April 19 at 7:00am – 5:00pm Friday, April 30, 2021

View Scholars Day 2021: symposium.foragerone.com/brockport21

All links to Scholars Day content can be viewed publicly.

Live Sessions will be held various days across the two weeks.
Comments are encouraged on asynchronous poster/verbal presentations.

Your participation in both attending live sessions and leaving comments/questions on asynchronous presentations is a great way you can support and encourage our students in their creative activities.

Scholars Day has several pursuits:

- To publicize research
- To share new concepts and ideas
- To expand knowledge
- To provide an opportunity to socialize with other members of the campus community outside of one's own department or discipline

<p>The Spectrum: A Scholars Day Journal: https://digitalcommons.brockport.edu/spectrum/ <i>The Spectrum: A Scholars Day Journal</i>, is a faculty juried, cross-disciplinary, electronic journal. Its goal is the publication of outstanding, student produced scholarship presented at the SUNY Brockport's annual Scholars Day.</p>

LIVE SESSIONS

Monday, April 19, 2021

The Mush Hole Lab at Brockport: Indian Residential Schools, Genocide, and Decolonizing Settler Coloniality

7:00pm – 8:30pm
[Session Access Link](#)

Presenters: Taylor Allen, Samantha Symonds, Mikaela Mehlorse, Lauren Jimerson
Faculty Sponsor: Dr. Neal Keating
Department: Anthropology

Abstract/Description:

The project focuses on interpreting the lived experience of R.G. Miller, who was a native child that was forced to spend 11 years in the Indian residential/boarding school systems set up in the US and Canada during the 19th and 20th centuries. This form of public history is a way of analyzing settler coloniality and how the mindset of 'destroy and replace' has developed. My tasks include preparing an on campus mini exhibit of miller's artworks, make sure the works are properly preserved and stay in good condition, as well as coordinating with photographers and publishers to get professional quality photos of the work in order to produce a book for the project. Furthermore, I am writing preliminary articles for publication, on the works formal art analysis as well social analysis that will be included in the book. This includes understanding why students aren't more aware of this history and the faults in our own educational system. To change history, we cannot just point out the problems of the past but rather connect them to our own. Liberation for one group of people can only be possible with the liberation of all.

Tuesday, April 20, 2021

Educating Children and Adolescents in Public Schools about Self-Hygiene

9:00am – 9:30am
[Session Access Link](#)

Presenter: Emily Scibette
Faculty Sponsor: Jennifer Chesebro
Department: Nursing

Abstract/Description:

While the United States has been making widespread advances in school health education programs regarding reproductive health, a key, foundational topic remains missing from school curricula — basic anatomy, physiology, and hygiene practices. The purpose of this project is to highlight this missing part of school health education programs and offer evidence-based education plans as solutions that can be applied appropriately to all age groups. First, I will discuss the current recommendations, strengths, and gaps in the United States health education system on a national and state level. Then I will systematically introduce the age-specific reproductive health education needs of children and adolescents in elementary, middle, and high school. Finally, I will describe different age-appropriate tools and methods that can be used to successfully educate students on the given age-related topics, as well as how to effectively perform these methods. Overall, the long-term goal of this project is to spread awareness of this persisting need in health education and hopefully one day be utilized in a classroom setting to rectify this knowledge deficit among students.

A Numbers Game: How analytics are affecting decision-making in professional baseball

9:45am – 10:00am
[Session Access Link](#)

Presenter: Paul Cifonelli
Faculty Sponsor: Kimberly Young
Department: Journalism, Broadcasting and Public Relations

Abstract/Description:

Baseball is a numbers game. Baseball has always been a numbers game. As the game has progressed, so have the type and amount of numbers used. The one thing that has not changed is that players are sometimes evaluated strictly by the statistics they produce. With this project, I had to overcome obstacles time and time again. However, by pushing through the problems and adjusting my plan, I was able to produce a story that still got to the heart of the subject I was investigating.

Precipitation Prediction using Multiple AI Approaches

10:15am – 10:30am

[Session Access Link](#)

Presenters: Timothy Haskins, Emma Doyle, Reid Hoffmeier

Faculty Sponsor: Dr. Ning Yu

Department: Computer Science

Abstract/Description:

Humanity has been recording weather data and attempting to predict it for thousands of years. As a result, there is a plethora of weather data and even more ways to express that data. This project aims to take advantage of the availability of that data and modern AI to determine the best combination of data expression and algorithm for predicting if the accumulated precipitation for Rochester, NY will be greater than zero inches for a given day. Based on the research of similar projects, the accuracy goal for this project is above 70%. Ten years of daily weather data were calculated from weather stations in and around Rochester, NY. The data describes the distribution of different measurements such as wind speed, temperature, dew point, relative humidity, and wind direction for a given day. Multiple versions of the data are derived from the original dataset. There are versions of the data that have been normalized with different normalization methods and some that are not normalized at all. Each of these different data expressions is run through different algorithms to determine which works best for each expression. The algorithms used in this project are K-Nearest Neighbor, Deep Neural Net, Wide Neural Net, Deep and Wide Neural Net, SVM, and LSTM. For all of the different versions of data, each is split into a training set and a testing set. The training set is 70% and the testing set is 30% of the data for each set. After an algorithm has been trained or fit to the training sample of the set, it is then set to predict the precipitation category for the test set and compared to the known precipitation to calculate accuracy.

Thursday, April 22, 2021

Measuring the Effect of Water on the Density, Viscosity, and Self-Diffusion Coefficient of Polyethylene Glycols

2:00pm – 2:15pm

[Session Access Link](#)

Presenter: Rachel Horowitz

Faculty Sponsor: Dr. Markus Hoffman

Department: Chemistry and Biochemistry

Abstract/Description:

Many organic solvents that are currently being used for chemical synthesis and separations are toxic, flammable, and overall hazardous. Green solvents have been studied as more environmentally friendly solvent options. Polyethylene glycol (PEG) is one green solvent because it is biodegradable, nontoxic, and has low vapor pressure. While PEGs have been explored in chemical synthesis, a physicochemical characterization of polyethylene glycol as a solvent has been lacking. Therefore, Molecular Dynamic simulations are planned in our laboratory, but require verification of the parameters used to describe the intermolecular interactions with experimental density, viscosity, and self-diffusion coefficient data. However, published literature data is limited to just density and viscosity and only up to tetraethylene glycol. Therefore, these physical properties were measured from 25 degrees Celsius to 85 degrees Celsius using a vibrating tube density meter, a rolling ball viscometer, and diffusion ordered proton NMR Spectroscopy (DOSY). Water is the most common impurity because polyethylene glycols are hygroscopic. Rather than removing water, we intentionally added water to inspect the effect of present water on the physical properties. It was found that adding up to 0.1 mole fractions of water affected the physical properties very little. Densities decreased not more than 0.5%, viscosities showed an inconsistent pattern with some PEGs increasing and some PEGs decreasing viscosity by up to about 5%, and self-diffusion coefficients remained constant within measurement uncertainty. From diethylene glycol to

nonaethylene glycol, self-diffusion coefficients decreased and the viscosities increased approximately linearly with the number of ethylene oxide repeat units. However, densities unexpectedly showed an unclear trend with the number of ethylene oxide repeat units. These observations hold true for all investigated temperatures. A summary of these results and other interesting findings will be presented.

Using Restorative Practices to Prevent Negative Outcomes for Students with Emotional Behavioral Disabilities

2:30pm – 3:15pm
[Session Access Link](#)

Presenter: Emily Kincade
Faculty Sponsor: Dr. Jennifer Ashton
Department: Education and Human Development

Abstract/Description:

My project's central focus is on researching the best practices for the inclusion of students with emotional behavioral disabilities in general education schools and classes. The first part is a literature review that defines and examines emotional behavioral disabilities (EBD). It also details the consequences that arise from excluding students with EBD from general education schools and classrooms. Many of these consequences, such as suspensions, expulsions, being held back and dropping out, result in the school-to-prison pipeline. Educators can prevent these outcomes by building a community that is centered on inclusion and restorative practices. The second part of my thesis is a professional development presentation designed to be provided to preservice and in-service teachers to learn how to implement restorative practices to provide supports to students with EBD in their teaching.

Adherence versus Accessibility: The Role Inclusive Architecture Plays in Public Interaction

3:30pm – 3:45pm
[Session Access Link](#)

Presenter: Serena Blackburn
Faculty Sponsor: Dr. Amy Guptill, Dr. Melody Boyd
Department: Sociology

Abstract/Description:

Several important factors must be considered concerning the innovation and reformation of public spaces: they need to be pleasant, practical, and accessible to all patrons. There are several reasons why accessible infrastructure is of vital importance. For this study, “In what ways do full-time and part-time residents of Brockport perceive and interact with accessible infrastructure installed in public and quasi-public spaces?” was examined. Qualitative data were gathered through studying a smaller population in detail. Community members were interviewed, allowing an understanding as to why a respondent may hold certain beliefs or behave in certain ways. The information seems to indicate that the sample population may not be comprised of many disabled people, so accessible public spaces were not at the forefront of people’s priorities where they live. However, most respondents expressed having a personal connection to someone that used a mobility aid or another source of accessible technology, and had needs concerning accessible architecture. Not speaking over others and being conscious over public interactions is reflected in the sample population, associations between one’s identities and how they are expected to conduct themselves in public correlated and may cause some level of unease when interacting with others/interacting with one’s environment.

A Little Bit of Femininity: The Impact of a Feminine Self-Concept on Willingness to Confront Sexism

4:00pm – 4:30pm
[Session Access Link](#)

Presenter: Julianna Testone
Faculty Sponsor: Dr. Jennifer Ratcliff
Department: Psychology

Abstract/Description:

For many women, experiences of gender discrimination in the workplace, higher education, and legal system, are common occurrences throughout their lifetimes. Despite the fact that discrimination occurs daily in the lives of women in almost every domain, many targets and bystanders of discrimination fail to confront expressers of prejudice. Given that prior research has demonstrated that confronting prejudice is an effective tool in reducing expressions of bias, it is crucial to identify factors that encourage bystanders to confront. In related research, endorsement of a feminine self-concept has been shown to predict increased motivation to respond without prejudice. The current research will expand prior work by exploring a novel method to enhance femininity and establish the relationship between a feminine self-concept and willingness to confront sexism. Approximately two-hundred forty participants will be recruited. Participants will be randomly assigned to one of three conditions – hyperfeminine, hypermasculine, or neutral – where they will view visually adapted faces intended to prime personal endorsement of femininity. Participants will then read a fictional hiring decision where a female candidate is rejected due to sexist rationale before being given the opportunity to report their willingness to confront the expresser. Predicted results, implications, and future directions will be discussed.

Spatial Variability of Thiamine Concentration and Fatty Acid Signatures in Lake Trout

4:45pm – 5:00pm
[Session Access Link](#)

Presenter: Aaron Heisey

Faculty Sponsor: Dr. Jacques Rinchar

Department: Environmental Science and Ecology

Abstract/Description:

In Lake Ontario, thiamine deficiency is considered a recruitment bottleneck for lake trout posing a challenge to the recruitment of wild fish. Diminished reserves of thiamine in adult fish result in reduced transfer to the eggs during spawning, leading to neurological impairments and overall mortality in the offspring. Since thiamine cannot be synthesized *de novo*, the forage base is the primary driver of thiamine deficiency. Throughout the Great Lakes, the consumption of an alewife rich diet is the primary cause of thiamine deficiency. Recently, wild recruitment has been observed in the western basin of the lake. Furthermore, the forage composition of the lake trout has undergone a recent shift, with the round goby becoming increasingly central. In this study, we use fatty acid signature analysis to infer diet selection in lake trout across an east-west spatial scale in Lake Ontario from 2019. In addition, analysis of egg thiamine concentration seeks to link changes in forage composition to the observed wild recruitment observed in the western basin. The results underscore the need for continued monitoring of thiamine concentrations in the face of changing prey composition.

Friday, April 23, 2021

8th Annual Pettis Family Business Plan Competition

3:30pm – 5:00pm
[Session Access Link](#)

Department: School of Business & Management

History of the Pettis Family Entrepreneurship Award:

The Pettis Family Entrepreneurship Award was established in memory of Larry '53 and Erma '53 Pettis who were founders of Pettis Pools & Patio in Rochester, NY. Larry and Erma Pettis are best remembered for their active roles in the Brockport alumni community and their avid support of the Class of '53 Scholarship. Their generosity also inspired many of their classmates to give back to Brockport. The Pettis Family Entrepreneurship Award was established by Ms. Julie Pettis to honor her parents and their dedication to Brockport, the College they loved. Julie believes Brockport students make a significant impact on the futures of our communities, and she wanted to create a gateway for them to do so. She calls the competition "Shark Tank for students."

To participate in the competition, student venture teams first need to submit executive summaries of their business plans in the screening round. Selected teams then attend a pitch contest to present their business ideas to a judging panel of internal and external business experts on the Scholars Day. The winning team(s) will be awarded a \$2,000 prize, and the recipients are expected to invest the money into their venture projects. Julie Pettis would like this award to send an important message to students "that their power to create is limitless, and all it takes is one good idea to catch on fire — and a lot of hard work — to change their lives."

Program:

Introduction | 3:30-3:35pm

Coordinator: Dr. Lerong He, Associate Dean, Prof. of Mgmt.

Achievement Fitness | 3:35-3:55pm

Andrew Dipalma

Top Shelf Ice Cream | 3:55-4:15pm

Alec Wankel

Zen Living Health Coaching | 4:15-4:35pm

Antonio Lombardo

Judge Meeting | 4:35-4:50pm

Chair: Dr. Daniel Goebel, Dean, Prof. of Marketing

Internal Judges: Dr. Mark Chang, Assistant Prof. of Sports Mgmt., Dr. James Cordeiro, Prof. of

Finance, Dr. Bahman Radnejad, Assistant Prof. of Mgmt.

External Judge: Ms. Gina Mangiamale, Brockport Small Business Development Center,

Entrepreneurial Consultant

Award Announcement | 4:50-5:00pm

Dean Daniel Goebel

Monday, April 26, 2021

Social Media Usage: Does it Make or Break Relationship Satisfaction?

1:00pm – 1:15pm

[Session Access Link](#)

Presenter: Makayla Hoyt

Faculty Sponsor: Mary Tiede

Department: Psychology

Abstract/Description:

Social media has gained immense popularity amongst the current and older generations. This rising popularity likely exerts influence on certain areas of interpersonal relationships, including relationship satisfaction. This exploratory study seeks to examine the link between relationship satisfaction and overall social media use via a qualitative study design. Participants included couples who are in long-term (i.e., 6 months or longer), committed relationships. Data collection involved the use of an interview guide and participant-led interviews tapping into couples' perceived relationship satisfaction and the depth and frequency of their social media use. The data collected from these interviews will be analyzed using a grounded theory approach, wherein themes are identified via systematic and comparative analysis. The results will be described in depth during this presentation, and will further our knowledge on the link between social media usage and relationship satisfaction.

A Comparative Look at Framing Theory During Pandemics

1:30pm – 2:00pm

[Session Access Link](#)

Presenter: Elizabeth Fontaine

Faculty Sponsor: Dr. Alexander Moe

Department: Journalism, Broadcasting, and Public Relations

Abstract/Description:

This project presents a comparative analysis between the 1918 H1N1 pandemic and the COVID-19 Pandemic through the eyes of Framing Theory. Framing Theory is a theoretical construct that allows researchers to explore media messages either visual or textual. Throughout this research, both pandemics were compared by exploring the cultural similarities and differences of both the 1910s and the 2020s. The research observes journalistic tendencies that pertain to Yellow Journalism and Fake News. One interesting preliminary finding was that in both decades there were elections that were greatly impacted by these pandemics, and because of this there is a lot of research about how the media has been used during these extreme times. Informed by Framing Theory, this study conducts a theoretically consistent methodology in

textual analyses which is used to study texts to make interpretations based on them. This is helpful when conducting a literature review of articles talking about the culture and Framing Theory.

Wednesday, April 28, 2021

Evaluating the Predictability of Automation's Role in Occupational Unemployment

2:00pm – 2:15pm
[Session Access Link](#)

Presenter: Catherine Mcconnell
Faculty Sponsor: Cameron Harwick
Department: Business

Abstract/Description:

This paper evaluates the results of the 2013 Frey and Osborne paper “The Future of Employment: How Susceptible are Jobs to Computerization?” where, using machine learning techniques, 700 occupations are given individual probabilities of computerization. To do this I compared Frey and Osborne’s predicted probability of job loss to actual job loss as reported by the United States Bureau of Labor Statistics from 2000-2020. This involved performing regression analysis to compare occupational unemployment trends, as well as trends in wages over the same timeframe to the Weighted Average Probability of Computerization as predicted by Frey and Osborne. The results show a negative correlation between both wages and occupational unemployment as well as between the predicted WAPC and actual occupational unemployment. Frey and Osborne’s paper is often used to make important economic policy decisions and was used by President Obama in creating his recovery plan after the 2008 recession. If Frey and Osborne’s predictions are incorrect then policies aimed at preventing widespread unemployment may be focused on fighting the wrong causes of unemployment or focused on providing aid to the wrong occupational groups.

I Think I Can, I Think I Can: Parental Influence on Adult Offspring Emotion Regulation Through the Lens of Self-Determination Theory

2:30pm – 3:00pm
[Session Access Link](#)

Presenters: Anna Crescent, Rachel Gillett, Chastity Henry, Travon Stevens, Satin Steele
Faculty Sponsor: Mary Tiede
Department: Psychology

Abstract/Description:

This study involves retrospective data collection from a sample of 530 individuals, ranging in age from 18 to 81 years and living in the United States. The purpose of this research is to explore the degree to which the meeting of one’s basic psychological needs by parental figures may be implicated within adulthood emotional functioning. Specific measures of assessment included the Perceptions of Parents Scales (POPS), the Helicopter Parenting Scale (HPS), the Emotion Regulation Questionnaire (ERQ), as well as a sociodemographic and maladaptive behaviors checklist. A group will review this data using the framework of Self-Determination Theory. A series of predictive and descriptive statistical analyses have been used to identify potential links between various parenting behaviors and emotion regulation in adult offspring. By understanding the significance of parental influences on the psychological well-being and emotional outcome of their offspring, researchers may strive to develop more effective intervention and treatment practices for individuals impacted by such.

Self-Harm in the Queer Community: Who’s Helping and Who’s Hurting?

3:15pm – 3:45pm
[Session Access Link](#)

Presenter: Nax Gillett
Faculty Sponsor: Mary Tiede
Department: Psychology

Abstract/Description:

This qualitative study explored the effects of significant social others of those within the LGBTQIA+ community on their decision to self-harm. Five individuals participated in multiple interviews ranging from 35 minutes to an hour tapping into their life experiences and the perceived impact of the people with whom they interacted in their day-to-day lives. Data was collected via clinical interviews utilizing a conversational-style interview guide paired with a demographic survey. Data will be analyzed using a grounded theory methodology, wherein themes are expected to emerge from and be constructed by the data itself. These themes will be discussed in detail during the presentation. Exploring the link between significant social others and self-harm is of import because those within the queer community exist with higher rates of mental illness, suicide, and self-harm. The current study will shed light on the true impact that significant social others have on these individuals and how important their support and care are for those within the queer community.

Settle: A Dance Film

4:00pm – 4:30pm

[Session Access Link](#)

Presenters: Lucy Mundschau, Catherine Mcconnell

Faculty Sponsor: Cassie Burns

Department: Dance

Abstract/Description:

This presentation will begin with a screening of the dance film “Settle,” followed by a Q&A with the artists. “Settle” is a performance in three acts that explores the interactions of two characters through scenes depicting the movement of their lives . The piece delves into dance and movement in the context of a home space, investigating the evolution of comfort and cohabitation, while blurring the lines of what is dancing and what is pedestrian movement. The work is inspired by the structures of opera and sitcom, molding postmodern dance and film together to create a collage of human experiences. Each “act” is a story in itself, and together, they create an abstract narrative that is both connected to and separate from the other scenes. Using the media of film, “Settle” plays with the ambiguity of time and tests the elasticity of reality. The piece falls in and out of disorientation and reorientation, situating these characters in a shifting world of possibility.

Thursday, April 29, 2021

Garment Magic: Techniques and processes in creating costumes and custom garments, from patterning to runway

3:30pm – 5:00pm

[Session Access Link](#)

Presenters: Allison Choate, Samantha Waldvogel, Allen Smeltzer, Allison O'Tier, William Merle

Faculty Sponsors: Gail Argetsinger, Geraldine Montouroy

Department: Theatre and Music Studies

Abstract/Description:

Five participating students will explain the process and demonstrate their costume projects.

Museum Studies and Public History Internships and Opportunities Roundtable

5:30pm-7:00pm

[Session Access Link](#)

Presenters: Leslie Hoag, Kaitlin Adams, Tyler Angora, Louis Chavez, Megan Marshall, Ryan Offen, Bryant Sweeney

Faculty Sponsors: Dr. Alexander Smith, Dr. Rozenn Bailleul-LeSuer

Department: Anthropology

Abstract/Description:

Join us for a roundtable of seven students from the Museum Studies and Public History program as they present their internship experiences at the Morgan-Manning House in Brockport, the Memorial Art Gallery in Rochester, Brockport's Anthropology Lab, the Theodore Roosevelt Inauguration Site in Buffalo, and the Library of Congress in Washington

D.C. Our roundtable will feature short presentations by each student and brief question and discussion section after. Come learn about the opportunities at Brockport in the Museum Studies and Public History program and beyond!

Friday, April 30, 2021

Molecular Dynamic Simulations of Solutions of Water in Monodisperse Polyethylene Glycols

9:30am – 9:45am
[Session Access Link](#)

Presenter: Matthew Too
Faculty Sponsor: Dr. Markus Hoffman
Department: Chemistry and Biochemistry

Abstract/Description:

Polyethylene glycol (PEG) is a polymer with chemical formula $H(OCH_2CH_2)_nOH$ that has favorable properties that make it a good alternative to traditional solvents for chemical syntheses. To further support the use of PEG as a green solvent, a better physicochemical understanding of PEG as a solvent is desirable. Prior work in our laboratory found that when adding small amounts of water to PEG the water was unexpectedly observed to self-diffuse slower than PEG for tetraethylene glycol and higher PEG oligomers at certain experimental conditions of temperature and water concentration. As an explanation of the slower water self-diffusion, we hypothesize that the water in higher PEG oligomers aggregates in clusters that are relatively stationary. To test this hypothesis, we will use molecular dynamics (MD) simulations to (1) provide 3D movies of the movement and relative position of the water in the PEG solvent and (2) provide a quantitative analysis of hydrogen bond numbers, structural information via radial distribution functions, densities, self-diffusion coefficients, and viscosities. To the best of our knowledge, these MD simulations represent a new research direction because MD simulations of PEGs reported in the literature have focused thus far on PEG as a solute and not as a solvent.

Telemetry and Mark-Recapture Data Characterize Juvenile Lake Sturgeon (*Acipenser Fulvescens*) in the Lower Genesee River of Lake Ontario, NY.

10:00am – 10:15am
[Session Access Link](#)

Presenter: Kyle Morton
Faculty Sponsor: Dr. Matthew Altenritter
Department: Environmental Science and Ecology

Abstract/Description:

Juvenile lake sturgeon (*Acipenser fulvescens*) use of open Great Lakes habitats represents a knowledge gap that has important implications for assessments of habitat use and survival. Recent observations indicate that juveniles in Lake Ontario undertake movements greater than 100 km as they move among tributaries. However, the rate and timing of emigration remains unknown. The goal of this project is to characterize juvenile lake sturgeon movements within and between the Lower Genesee River and Lake Ontario in New York State using acoustic telemetry to inform rates of emigration needed to estimate survival. Additionally, we will explore how movements of tagged fish correspond with environmental variables like temperature, dissolved oxygen concentrations, and discharge. Seventy stocked yearling sturgeon and thirty sub-adult sturgeon were tagged and released in the Genesee River between 2019 and 2020 with VEMCO acoustic transmitters. Preliminary data indicate that both thermal stratification and hypoxia were present in the Genesee River during summer of 2020 and that a subset of tagged juvenile lake sturgeon were detected outside of the Genesee River in Lake Ontario. As monitoring continues, we will look to estimate rates of emigration for both yearling and subadult lake sturgeon to enhance mark-recapture based estimates of survival.

Stable Isotopes and Morphometric Variation: Describing Yellow Perch (*Perca Flavescens*) Use of Lake Ontario and Two Barrier Protected Coastal Wetlands.

10:30am – 10:45am
[Session Access Link](#)

Presenter: Kylee Wilson
Faculty Sponsor: Dr. Matthew Altenritter

Department: Environmental Science and Ecology

Abstract/Description:

Yellow perch (*Perca flavescens*) are known to move between open Great Lakes and coastal wetland habitats during their lifetime. However, uncertainty remains in quantifying variability in the duration of use within these habitats, and if such variation manifests as morphometric (body shape) differences among individuals. To explore these uncertainties, we measured isotopes of carbon and nitrogen in fish muscle tissue and macroinvertebrates, and compared 13 length-standardized morphometric measurements from yellow perch caught in Lake Ontario, or two barrier protected coastal wetlands in the Braddock Bay Wildlife Management Area. Our preliminary findings indicate that fish from Lake Ontario display enriched carbon and nitrogen signatures in tissue isotopes relative to fish caught in coastal wetlands.

Morphometrically, Lake Ontario-caught fish differed from wetland-caught fish based on head length, pelvic fin length, and to a lesser degree pelvic-anal distance, body depth, and caudal peduncle length. These metrics will serve as baselines for comparison to putatively migratory yellow perch entering coastal wetlands in spring 2021 to discern duration of residence using stable isotopes and potential adaptations to a migratory life history based on body morphometrics.

POSTER / VERBAL PRESENTATIONS

ASYNCHRONOUS POSTER / VERBAL PRESENTATION BLOCKS

Applications of Statistics in Real Life

Are Educators Less Likely to be Supportive of LGBTQ+ Students than All Americans?

Presenter: Jacob O'Connor

Faculty Sponsor: Dr. Tasneem Zaihra

Educators have a large impact on students' lives. ;Students learn best when they feel supported and cared for. ;Studies show that students who identify as LGBTQ+ know their identity by the age of 15 (Pew Researchers, 2013). ;Thus, the support from high school teachers are important to students identifying as LGBTQ+ not only academically, but socially. ;To determine if educators are less likely to be supportive than the general population, statistics are taken from the GLSEN National School Climate Survey (Kosciw et al, 2020) and is compared to research by Greenberg et al. (2019). ;After completing a one sample z-test for proportion, we can conclude there is statistical evidence that educators are less likely to support LGBTQ+ students compared to the general population. ;I suggest ideas for future research, which may provide to better statistics with different results.

There is No Significant Difference Between Male and Female Professors Salaries

Presenters: Alayna Riefer, Kelsey, Oliverio

Faculty Sponsor: Dr. Tasneem Zaihra

After examining our data of salaries of male and female professors, based on their rank, years of service, years since their Ph.D., we concluded that we would conduct a one-tailed hypothesis test. Our null hypothesis stated that the difference between male and female salaries, controlling other factors, was equal to zero. Our alternate hypothesis was that the true difference is not equal to zero, i.e., males make more than females. This means that there is an unfair biased towards males in the wages they earn, regardless of other controlled factors. Although the average salaries between males and females do differ in each comparison, the p-values were all higher than the significance level meaning we fail to reject out null hypothesis. Using a level of significance of 0.05, the one-tailed hypothesis test proved there was not enough evidence to reject the null hypothesis, so we failed to reject the null hypothesis. Unfortunately, our data did not pass all 5 assumptions needed for conducting a T-Test but after running the test, it still conveyed what we sought to prove. Thus, there is not enough evidence to support that there is a true biased difference between the salaries of males and females.

The Association Between Number of Friends and Life Satisfaction Based on Extraversion

Presenter: Amelia McCarthy

Faculty Sponsor: Dr. Tasneem Zaihra

Humans are social animals, and we receive an abundance of physical and mental health benefits from increased socialization. This relationship is consistent for both introverts and extraverts. Though research has focused on these benefits, there has not been research distinguishing between the benefits of stranger interaction and close friendships. The goal of the study was to form a recommendation on whether it is better to devote more time to a smaller number of friends or branch out. The sample came from the adolescent health data set, a nationally representative longitudinal study of young adults. Significant relationships were found between number of close friends and life enjoyment and number of close friends and sadness. When separating introverts and extraverts, both groups were still more likely to enjoy life and be less sad with more close friends.

The Relationship Between One's COVID-19 News Consumption and their Anxiety Level

Presenters: Amelia McCarthy

Faculty Sponsor: Dr. Tasneem Zaihra

This is a significant period in American history, as the COVID-19 pandemic has recently become a major part of our daily lives. This pandemic is arguably one of the most significant historical events in our lifetimes, and the ramifications will certainly affect life long after restrictions are eased. While physical health has been the obvious focus during this time, mental health has also been severely impacted. Mental health is often given less importance in times of great physical danger such as this one. We have also been inundated with news about the ongoing crisis. These factors led me to the decision to analyze the relationship between the degree to which an individual follows the news surrounding the COVID-19 pandemic and their anxiety levels. I will be analyzing Wave 64 of the Pew Research Center's American Trends Panel, published on April 1, 2020.

Capstone Leadership Expression of Growth

At the end of each student's Capstone journey, they reflect on their experiences throughout the program and how they will use these experiences to demonstrate leadership in the future communities in which they live and serve.

Expression of Growth: My Final Reflections on the Leadership Development Program.

Presenter: Christopher Knauf

Faculty Sponsor: Karen Podsiadly

My final reflections on the Leadership Development Program through the lens of the Capstone (4th year) Leadership Certificate. Here I will discuss my expression of growth where I discuss what I have learned about myself, about the community surrounding me, and how to foster change/community impact alongside enabling and fostering growth in leadership qualities toward others. Most importantly, my reflection is on how LDP has assisted me in preparing for the future; especially during these unprecedented times.

Expression of Growth During the Capstone Level of the Leadership Development Program

Presenter: Serena Blackburn

Faculty Sponsor: Karen Podsiadly

Capstone level of the Leadership Development Program: a video detailing my Expression of Growth during my participation in the Capstone level of the LDP program, and how the support of the members of the group and connected offices has impacted my experience.

Expression of Growth Project Presentation

Presenter: Caitlyn Roden

Faculty Sponsor: Karen Podsiadly

In my presentation, I will address what I have learned throughout the program and how I will use my experiences to demonstrate leadership after graduation. I will explain what I have learned about myself as a leader, what skills I have learned that will enable me to create meaningful change within my community, in what ways I have fostered the leadership development of others, and how the LDP program has assisted in my preparation for future career and community aspirations.

Expression of Growth

Presenter: Briana Middleton

Faculty Sponsor: Karen Podsiadly

A reflection of leadership inspired by amazing leaders, workshops and conversations on the varying aspects of leadership.

Scholars Day Presentation for LDP Capstone

Presenter: Meaghan Irving

Faculty Sponsor: Karen Podsiadly

Questions answered as required: What you have learned about yourself as a leader What skills have you learned that will enable you to create meaningful change within your community In what ways have you learned to foster the leadership development of others How has the LDP program assisted in your preparation for future career and community aspirations/opportunities (Video is public name on Youtube is Meaghan Irving)

Expression of Growth while at LDP

Presenter: Kelly Carrillo

Faculty Sponsor: Karen Podsiadly

This presentation will talk about what I have learned about myself as a leader, what skills I have enable in order to create a meaningful change within my community and how being part of the Leadership Development Program will help me in the future.

Chemical Analysis Experiments

Students from CHM 303, Analytical Chemistry I, will present posters about one of their quantitative chemical analysis experiments in the laboratory. These experiments include analysis of mixtures of alcohols by gas chromatography, composition analysis of polymer blends by liquid and gas chromatography, determination of fluoride content in tooth paste by ion selective electrodes, electrochemical analysis of ferricyanide and calibration of glassware.

Glassware Calibration

Presenter: Derek McNeil

Faculty Sponsor: Dr. Markus Hoffman

Volumetric glassware is mass produced and each individual item may not be manufactured and/or calibrated to exact specifications. Manufacturers give a measurable range of tolerance. The goal of this experiment was to check the accuracy of a 25 mL pipet and a 50 mL buret by determining the actual volumes delivered through mass measurements. The obtained actual volumes delivered and their uncertainties were compared with the manufactures given specifications and tolerance of 0.05ml for the buret and 0.03ml for the pipet. The masses of the dispensed water samples were measured with an analytical balance with an uncertainty of 0.1 mg and the obtained masses were corrected for buoyancy effects. The volumes of the dispensed water samples were calculated using the known density of water taking into account that manufacturers specifications assume a temperature of 20 oC. The Grubbs test was used to inspect for and eliminate outlying measurements. The overall findings and further conclusions will be presented. ;

Determining the Unknown Concentration of Ferricyanide Using Cyclic Voltammetry

Presenter: Jenna Heaton

Faculty Sponsor: Dr. Markus Hoffman

The goal of the chemical analysis voltammetry was to determine parameters E° , E_p , for the redox couple and Determine the diffusion coefficient for the analyte. 250 mL of 1.0 M potassium nitrate was prepared and was separated into five concentrations 2, 4, 6, 8, and 10 the potassium nitrate was diluted with KNO₃, plus and unknown solution. The instrument used to calculate the voltammetry is Pine Instrument Company AFCBP1 Bipotentiostat and Pine Instrument Company ASWCV2 software to collect the data. We used the Pine Instrument Company AFCBP1 Bipotentiostat to determine which concentration the unknown solution was. The results from this chemical analysis 2.4967*10⁻¹⁴ cm²s⁻¹. Voltammetry is a classification of controlled potential electrochemical methods that involve determining current output as a function of applied potential on a working electrode. The importance of this lab is that the voltammetry calculated the high the maximum E_{pc} and the minimum E_{pa} and used that to find the unknown solution. Then, the diffusion concentration was found with the using the $i_p = 2.686 \times 10^5 n^3/2 A C D^{1/2} \dots \text{Å}^{1/2}$. The people that would be interested in these results are analytical chemist who want to find the concentration in the unknown solution and diffusion concentration of the unknown. ;

Determination of Fluoride in Colgate Toothpaste using Ion Selective Electrode Potentiometry

Presenter: Brian Ireland

Faculty Sponsor: Dr. Markus Hoffmann

The goal of this laboratory experiment was to determine the measured amount of fluoride within a Colgate branded toothpaste using ion selective electrode potentiometry. Two standard linear regression calibration curves were assembled using data collected from standard NaF solutions using distilled water as solvent as well as, for comparison, total ionic strength adjustment buffer (TISAB) with distilled water. A solution containing a known amount of Colgate toothpaste was prepared, and the electric potential was measured several times. Using linear regression data from the calibration curves an average fluoride mass of 0.000809 ± 0.000067 grams was obtained, which is within a one standard deviation of the calculated fluoride mass of 0.000749 grams based on mass% fluoride, stated on the product label. Determination of fluoride content was also attempted using the standard addition methods to further validate the results obtained from

the calibration curves. Overall, the results show that ion selective electrode potentiometry is a valid method of analysis when attempting to quantify a specific ion in a solution.

Determination of F⁻ in Toothpaste

Presenter: Nathaniel Paddock

Faculty Sponsor: Dr. Markus Hoffmann

The purpose of this experiment is to determine the amount of fluoride in a sample of commercial toothpaste, for comparison with the manufacturer's label. The sample was analyzed using ion selective electrode potentiometry. Data analysis was done using standard addition of NaF, as well as a calibration curve of NaF in TISAB (total ionic strength adjustment buffer). Ion selective electrode potentiometry measures the difference of potential in two electrodes, one of which only measures for a particular ion (F⁻). The measured potential is proportional to the log of F⁻ concentration in keeping with the Nernst equation. Standard addition is done by adding incrementally known amounts of analyte (F⁻) to a solution of dissolved toothpaste. Specific details on how the fluoride content in toothpaste from the obtained data will be presented. The amount of F⁻ analyte was determined to be 0.0906 (+/- 0.0008) weight % which is not in agreement with the manufacturer's claim of 0.14% at the 95% confidence level.

Determining the Concentration of Ferricyanide in an Unknown Solution by Use of Cyclic Voltammetry

Presenter: Joseph Kealy

Faculty Sponsor: Dr. Markus Hoffman

Utilizing the Pine instrument Company AFCBP1 Biopotentiostat and the Pine Instrument Company ASWCV2 Aftermath™ software, we found by the method of cyclic voltammetry the concentration of an unknown solution of Potassium ferricyanide (K₃Fe(CN)₆) in a dilute solution of Potassium nitrate (KNO₃). These metal ions disassociate in solution forming charged ionic electrolytes. These can produce an electric response and provide us with a concentration from a calibration curve. A calibration curve was obtained utilizing the measured voltammograms of five different standard Potassium ferricyanide solutions of known concentrations. Specifically, the cathodic and anodic currents were measured as a function of K₃Fe(CN)₆ concentration. Using the obtained calibration curve, the concentration of the unknown solution was found to be 6.588 mM Ferricyanide, with a standard deviation of 1.52×10^{-6} mM. In addition, the diffusion coefficient for a solution of 4mM Ferricyanide in 1.0 mM Potassium nitrate was calculated from sweep rate dependence of the cathodic current. This was found to be 6.86×10^{-7} cm²s⁻¹. There was an observed error of 3.43×10^{-8} cm²s⁻¹ in diffusion coefficient calculations. Overall, cyclic voltammetry can be very useful for finding the concentrations of ionic solutions.

Identification and Quantification of an Unknown Alcohol Mixture by Gas Chromatography with Flame Ionization

Presenter: Ian Mauck

Faculty Sponsor: Dr. Markus Hoffmann

The goal of this experiment was to identify and quantify by means of gas chromatography (GC) with flame ionization detection the composition of an unknown mixture containing four alcohols. The unknown sample contained ethanol, methanol and two other alcohols to be identified as either n-propanol, n-butanol, or i-butanol. Gas chromatograms of the unknown and of samples containing just one of these three alcohol components were obtained to identify which alcohols are present in the unknown by comparing the retention time. An additional standard sample with known mass composition of the two identified alcohols was prepared and repeated gas chromatograms of this sample was acquired. The mass composition of the unknown sample was obtained by comparing respective peak areas with the chromatograms of the prepared standard sample. To ensure that all retention times and peak areas would remain consistent, all GC runs were done at same experimental conditions including a column temperature of 40°C and flow rates adjusted to complete GC acquisition within 4 minutes. In addition, all samples contained the same amount of 1% by volume of ethanol as an internal standard. This allowed for obtaining relative peak areas where the area of each analyte peak was divided by the area of the ethanol peak thus removing systematic errors from temporal fluctuations in detector response between GC acquisitions. The alcohols determined to be present in the unknown were n-propanol and n-butanol. Their average masses in the unknown sample were 0.0674 ± 0.0178 g and 0.0343 ± 0.016 g, respectively.

Is Your Glassware Calibrated?

Presenter: Colin Canaperi

Faculty Sponsor: Dr. Markus Hoffman

This poster shows methods for the calibration of volumetric glassware. It is important to verify that a manufacturer's claim for glassware accuracy is within the listed tolerance. Without calibration, a user may introduce unwanted systematic errors into their experiments. These systematic errors can potentially be eliminated by calibration. Anyone who desires accurate volumes may find the presented procedures particularly useful. Specifically, deionized water was dispensed from a buret and a volumetric pipet. The accuracy of these volumetric glassware was determined by measuring the mass of the dispensed water. From the known water density, the actual volume of liquid that the glassware dispensed was evaluated. In these calculations, the mass of water dispensed was corrected for buoyancy effects. It was determined that the buret had an average error of less than 0.001mL. The pipette had a significantly larger average error of approximately 0.032mL. The buret was determined to be both accurate and precise while the pipette was determined to be precise, but not accurate. The standard deviation for the pipette was found to be 0.011mL. The buret was checked for possible non-uniform volume delivery across its length. The buret dispensed most accurately in the middle, and least accurate near the ends.

Controversial Issues in Environmental Science: Critical Analyses

Students groups from the senior-level capstone course for environmental science majors, ENV 492, will present posters examining a series of controversial issues in environmental science and ecology. Each presentation will emphasize critical thinking skills, which is a major course theme.

The Challenges of GMOs: Costs and Benefits

Presenters: Olivia Douglas, Elena, Greco, Owen Bean, Kylee Hayes

Faculty Sponsor: Dr. Christopher Norment

Genetically modified organisms/foods (GMOs) promote global food security and reduce hunger/malnutrition. However, GMOs may pose risks to humans, non-human organisms, and ecosystems. GMOs are regulated, generally recognized as safe by the FDA, USDA, and EPA, and do not always require labelled documentation. Political debates reflect on other analyses of the issue; GMOs can contain enriched or fortified additives for preservation, flavor, and supply and demand needs. It's up to governments to set safety guidelines for GMO use. Releasing GMOs into the environment can cause varied outcomes. The consequences of GMOs are unpredictable and are not fully recognized until after release. For example, a plant may be modified to express genes that protect against pests. What happens if GM plants start negatively affecting non-target species? Social issues concerning GMOs have been rising throughout the past decade. Our growing population needs more food than ever; GMOs can help with that, but we do not completely understand the potential impacts on the surrounding environment. Consequences related to GMOs are not yet fully understood and it is important to continue research on them for the future. We provisionally support GMOs; however, extensive research must identify their positive and negative consequences before and after use.

Sustainability of Four Commercially Caught Fishes: Pollution, Demand and Diseases

Presenters: Matthew Beers, Zachary, Morin, Cyalea Rivera, Sky Symonds

Faculty Sponsor: Dr. Christopher Norment

Global fisheries have been mismanaged for decades as the demand for ocean caught seafood has risen. With this mismanagement, problems associated with pollution and disease have risen, with little effort taken to mitigate them. Once considered bycatch, demand for monkfish exploded in the 1990s leading to extensive fishing and a population decline. Monkfish as well as Atlantic Cod are collected using gillnet and trawling methods that can damage habitat and disturb other benthic species. Atlantic Cod stocks have also decreased in the Gulf of Maine, Celtic Sea, and Georges Bank due to overfishing. Another popular fish species is the Pacific Salmon, which includes five different species: chinook, Coho, pink, sockeye, and chum. Since the 1980s, salmon populations have declined due to natural and human activity, and are currently threatened by overharvesting, habitat destruction, pollution, and disease in the Pacific Northwest. Atlantic Bluefin Tuna are a highly sought-after food item and are facing dangerously low levels commonly caught using purse seine. Aside from common diseases involved with aquaculture, their slow maturity rate also contributes to the decline of wild tuna populations. New management policies must be enacted to preserve these species for future generations.

The Need to Diversify Agriculture

Presenters: Riley Lindberg, Marios, Argitis, Hollee Graham, Marius Sidlauskas

Faculty Sponsor: Dr. Christopher Norment

Traditional approaches to agriculture have supplied the food resources for a growing human population. This presents many concerns about the environmental threats and sustainability of agriculture, and issues such as habitat fragmentation, pollution, and threats to biodiversity stimulated the development of more sustainable approaches to agriculture. Alternative

agriculture mimics natural systems, and produces more food while using less resources. The field of agroecology deals in the sustainability of farmlands by attempting to manage them as their own ecosystem. Due to this, alternative methods of agriculture have promoted the interconnectedness of farmed crops with natural systems and farmlands, encouraging biodiversity and resource recycling. As with all new technologies there are drawbacks to agroecology; these include a lack of public support/funding, not as conducive for large scale farming, and high startup costs. Switching from traditional farming to methods of alternative agriculture will benefit crop production due to higher crop output and diversity, while providing net positives to the economy, human life, and environmental health. While negative impacts have surfaced with this alternative approach to agriculture. Long-term positives are much greater. The growing human population has forced the need for change.

Effects of the Trump Administrations Rollback of the 1918 Migratory Bird Treaty Act

Presenters: Allison Morrow, Jennifer, Beideck, Nicholas Rinaldi

Faculty Sponsor: Dr. Christopher Norment

The Migratory Bird Treaty Act (MBA) of 1918 states that it is unlawful to harm any protected migratory bird, unless authorized under a permit issued by the Secretary of the Interior. The regulatory rollback of the Act by the Trump administration changed the interpretation of the law by stating that the federal government will not hold entities such as corporations accountable for incidental take. Incidental take means that if an entity did not intend to kill migratory birds through its actions, it would not be held accountable. This includes entities responsible for killing large numbers of birds such as British Petroleum (BP), which was responsible for the 2010 Deepwater Horizon oil spill. Under the regulatory change, BP would not have been held accountable for the oil spill, the bird deaths from the oil spill, and would never have had to pay \$20.8 billion in fines. Since 1970, populations of migratory birds have declined by 3 billion. Our presentation will discuss the effects of the regulatory change in the MBA, and demonstrate that the rollback could cause further declines in migratory bird populations.

The Devastating Global Decline of Insect Populations

Presenters: Noah DiLorenzo, Cara, Maresca, Eric Olsen, Steven Altrith

Faculty Sponsor: Dr. Christopher Norment

Across the globe, no animal group has a more significant impact on ecological systems than insects. Invertebrate species perform countless invaluable services, including pest control, decomposition, soil enrichment, aeration, food production, and pollination. Despite this fact, research on insects significantly lacks across the board compared to vertebrate species, though recently, an alarming decline has been noted. According to a long-term study in Germany, the insect population has declined 75% since the 1980s, primarily due to the effects of pesticide usage in industrial farming. Without rapid, effective alterations in human behavior, most insect populations may be doomed to extinction, taking with them an untold number of other species and irreparably damaging society as we know it today.

The Effects of Plastic Waste on Human and Ecosystem Health

Presenters: Luka Koziol, Madison, Ramper, Abby Lysiak

Faculty Sponsor: Dr. Christopher Norment

Plastic materials pose a large threat to environmental health, in both aquatic and terrestrial ecosystems. Plastic, a type of polymers, is produced by converting natural products, generally from coal, crude oil, or natural gas. Policies for managing are outdated and threaten the health of people and wildlife. While their importance in the manufacturing of hospital devices and personal protective equipment (PPE) is unquestionable, last year alone, 280 million tons of plastic was produced globally. Of that amount, less than half of it was consigned to a landfill or recycled. The remaining 150 million tons may either still be in use or littered throughout the continents and oceans. Plastic debris can not only physically harm wildlife but can also be chemically harmful and potentially toxic. The bioaccumulation of these plastics and their byproducts can lead to endocrine disruption and effects on behavior, immunity, and neurological function. A total of 6.3 billion tons of both primary and secondary plastic waste was generated between 1950 and 2015, and of that amount about 79% is either being stored in landfills or released back to the natural environment. Thus, the current approaches to the manufacturing and use of plastics, including ending usage, and the need for immediate revision.

Counselor Education

An Examination of Success: SUNY Brockport Leadership Development Program

Presenters: Alison Dedicke, Shannon, Niles, Kelcie Fenner, Lanisha Green

Faculty Sponsor: Kara Hiltz

This project is an examination of the success within SUNY Brockports Leadership Development Program (LDP) amongst undergraduate students as well as empirical considerations for efficacy of leadership. Additionally, the intention of this project is to explore and assess the data received as to whether or not the overall objectives of the leadership program were met and if individual professional goals of the students were achieved. Furthermore, as this project is in its infancy, there is limited data available to analyze the primary proposed research subject. However, there will be future research conducted to determine specific barriers to participation in leadership amongst undergraduate students. Finally, further data will also need to be gathered to assess the potential lack of awareness regarding leadership programs available to students.

Burnout of Clinicians During the Pandemic

Presenter: Katie Spence

Faculty Sponsor: Dr. Claudette Brown-Smythe

This study aimed at exploring clinicians emotional experience in dealing with the increase in demand during the pandemic and how they participated in self-care to prevent or work through burnout. This mixed methods study utilized a survey that assessed levels of burnout and a semi structure interview to get clinicians reflect on how they prevented and managed burnout and their self-care practices. Survey data was analyzed using descriptive and correlations statistics while the qualitative data utilized thematic analysis. It is anticipated that findings from this research will help in understanding of how clinicians experienced the pandemic and self-care strategies that helped them to prevent and work through burnout during this time.

Capstone Project - Spanish -Speaking Parent's Satisfaction with Mental Health Services

Presenter: Chaynna Colon

Faculty Sponsor: Dr. Claudette Brown-Smythe

Attaining mental health services can be complicated and confusing for some individuals. This is specifically true for individuals within the Latinx community who seek services but only speak Spanish or a limited amount of English. This Capstone project aims to assess how satisfied Spanish-speaking parents are with their child's services at an outpatient mental health facility. An online survey was sent out to Spanish-speaking parents, who either met with a Spanish-speaking clinician or used an interpreter/translator during their counseling session. This study utilized a quantitative design using a client satisfaction survey provided through Qualtrics. Data will be analyzed using descriptive statistics to assess parental satisfaction. Based on the results, the researcher will make some recommendations to improve services provided at the outpatient mental health clinic.

COVID-19 Post-Graduation Outcomes of Undergraduate Students

Presenter: Brittney Turner

Faculty Sponsor: Dr. Claudette Brown-Smythe

The COVID-19 pandemic has caused hardships for many individuals in the United States. College students in particular face difficulties in finding employment in their field of interest post-graduation. This study sought to further understand if students are able to obtain employment post-graduation in May of 2020 compared to students who graduated in May of 2019. Additionally, this study sought to understand if students were finding employment in their field of interest or obtaining a job of lesser value. To assess these matters, a secondary analysis of data was performed to evaluate existing information from the First Destination Survey (FDS). Lastly, to determine if there was a reduction in job postings across all industries in 2020 due to the COVID-19 pandemic compared to previous years, existing data from Handshake was evaluated. Findings indicated that overall, there was a decrease in the number of students becoming employed six months post-graduation, an increase in the number of students still seeking a job in their field of interest six months post-graduation and lastly, a decrease in the number of job postings as a result of the COVID-19 pandemic, compared to previous years. This information will be useful for higher education institutions in determining which students require the most support needed to be successful by evaluating market-trend data to determine the best post-graduation destinations.

Eco-Anxiety and Mental Health in 2020-2021: The Effects of the COVID-19 Pandemic, The U.S. 2020 Presidential Election, Recent Social Justice Uprisings, and Climate Change on Mental Health

Presenter: Sabrina Smith

Faculty Sponsor: Dr. Robert Dobmeier

Eco-anxiety can be described as anxiety that arises from events or changes that occur within ones environment. Within the past year, the United States has experienced a significant amount of change within its environment that will undoubtedly have significant effects on the mental health of individuals of all walks of life and the mental health profession as a whole. This study examined the effects of eco-anxiety surrounding relevant current events that have occurred in 2020-

2021 including the COVID-19 Pandemic, Social Violence, United States government affairs and climate change on the mental health of the clients that are currently seeking mental health treatment. This study plans to assess mental health therapists at Evelyn Brandon Health Center to see if the themes of the COVID-19 Pandemic, Social Violence, United States government affairs and climate change are or have been present in sessions with current clients. This research will be important in helping plan for future public health crises, adapting to a changing mental health field, and implementing evidence-based practices for eco-anxiety.

Faculty and Staff Perception About the Implementation of Positive Behavioral Interventions and Supports (PBIS) in Rural Schools

Presenter: Miranda Merton

Faculty Sponsor: Dr. Claudette Brown-Smythe

The intent of this study is to gain insight on the existing use of positive behavioral interventions and supports (PBIS) as well as the need for the implementation of PBIS strategies in the rural school setting. This qualitative study sought to evaluate the barriers towards implementing PBIS in the Red Creek Central School District (RCCSD) located in Wayne County, NY. By completing this research, I was able to identify if implementing PBIS in these districts has created a positive school climate. This research will demonstrate the faculty's perspectives on PBIS in the rural school district. The findings from the survey will be shared with RCCSD administration and PBIS teams in order to improve the PBIS interventions that are currently being used.

Impact of Athletic Participation on Attendance and Academic Success in an Under-Performing School District.

Presenter: London Booker

Faculty Sponsor: Dr. Robert Dobmeier

Children and adolescents frequently do not recognize the connection between academics and athletics. This misconception causes a large percentage of youth and high school athletes to have low grades in school, leave sports altogether, or not attempt athletics at the collegiate level. When working with underprivileged populations, it is important to assist them in making that connection. East High School in the Rochester City School District is one of the largest and most prolific schools for athletics in the district. By collecting attendance records and historical grades, I can show how participation in athletics can increase both attendance and academic performance. I intend to showcase results that will influence student athletes to engage in multiple sports.

Median Household Income and Academic Achievement

Presenter: Jesse Partrick

Faculty Sponsor: Dr. Robert Dobmeier

Research suggests that household income is correlated with academic achievement in secondary school students. This study uses collected data from a school district in the region including median household income based on the US Census Tract the student lives in, GPA, number of days absent, number of days tardy, and plans after graduation. Data have been collected from the graduating classes of 2019 and 2020. Using an analysis of variance, these data will be analyzed to determine if there are any statistically significant relationships between these variables. Results will be shared with the counselors and administrators at the school district in an effort to focus resources to those students who might be adversely affected by household income. Results of this study are currently pending.

Multi-Tiered System of Supports

Presenter: Abena Mason

Faculty Sponsor: Dr. Claudette Brown-Smythe

Multi-Tiered System of Supports (MTSS) has not flourished as well as to be expected in rural school districts. This may be because of scarcity of resources, a lack of understanding of the program, and a fissure in implementing the program within the schools. Due to these divergences, this quantitative research has been conducted within the Newark Central School District. A survey was sent out to the staff, faculty, and administrators within the school district. The information received from the survey will help the researcher to determine the reason(s) MTSS is struggling to be a leading component in the school district and notions which may be utilized to improve its operation within the schools. At the completion of the research, the data collected will be shared with administrators in an effort to improve how MTSS is used and recognized within the district.

Outpatient Services Provided at Discharge from an Inpatient Psychiatric Unit and Their Link with Readmission Rates

Presenter: Tracey Bedford

Faculty Sponsor: Dr. Robert Dobmeier

This study will examine what mental health services patients are linked with upon discharge from an acute psychiatric inpatient unit and what role, if any, that plays in readmission rates to the unit. Acute psychiatric settings are meant primarily to assess and stabilize patients who are found to be a danger to themselves or others and it is widely accepted amongst the mental health care community that individuals discharged from these units require longer term mental health treatment via various modes of outpatient care. The purpose of this study is to explore if linkage with certain outpatient services is connected to a higher inpatient readmission rate than others. This study will look at 30-day readmission rates to the Woodbury 2 psychiatric inpatient unit at Clifton Springs Hospital and Clinic and what services those readmitted patients were linked with upon their prior discharge. It is the aim of this study to help the following: aid unit social workers in ensuring that they are linking patients with the best fit outpatient care and to be a springboard for future research in appropriate level of care linkage with outpatient mental health care upon discharge from a psychiatric inpatient unit.

Positive Behavior Interventions and Supports in the Clyde-Savannah School District.

Presenter: Shayla Pasker

Faculty Sponsor: Dr. Claudette Brown-Smythe

The purpose of this study was to determine staff at Clyde-Savannah school district opinions and views on Positive Behavioral Interventions and Supports in the school environment, as well as their confidence level on implementing PBIS in the classroom. The research questions asked in this study were, "How do the staff at Clyde-Savannah currently view PBIS in the Clyde-Savannah school district and, are staffs views and opinions on PBIS positive or negative. This quantitative research sought to answer the two questions by sending out a ten-question survey to all Clyde-Savannah staff that work with students. This research hopes to improve staff buy-in of PBIS to successfully implement PBIS at Clyde-Savannah school district moving forward. These findings will help improve full staff buy-in of PBIS for future success in implementing PBIS throughout Clyde-Savannah school district. The benefit of full staff buy-in for implementing PBIS throughout the school district is to create a more positive environment for both students and staff as well as guide students towards a successful future.

Preventative Peace Circles and Student/Teacher Relationships

Presenter: Michelle Nanni

Faculty Sponsor: Dr. Claudette Brown-Smythe

Having a solid student/teacher relationship helps bring harmony into the classroom. Peace circles are used in a school setting to talk, share, and connect in order to create closer bonds. The intent of this study was to understand teachers perception on whether or not they believed their relationships with students had improved after participating in peace circles. To assess these matters, data was collected through likert-scale surveys given to teachers before participating in peace circles, and then again after 5 weeks of participation. The survey asked teachers about their understanding of restorative practices, their willingness to implement peace circles in their classrooms, as well as if they felt that their relationships with their students have grown after joining in peace circles. This research is still in progress and the quantitative data will be analyzed using a descriptive analysis when it is completed. The research may be helpful when trying to implement circles in schools because it can be used to assure teachers the effectiveness of these practices.

Preventative Peace Circles and Student/Teacher Relationships

Presenter: Carley Fairchild

Faculty Sponsor: Dr. Claudette Brown-Smythe

The intent of this study is to examine whether preventative peace circles improve student/teacher relationships as perceived by the teacher. Teachers were asked to complete a Likert-scale pre-test that addressed their perception of their current relationship with their students. After this pre-test, the teachers were asked to facilitate 5 weeks worth of peace circles in their classrooms. Following the 5-week peace circle sessions, they completed a Likert-scale post-test that asked if they felt the peace circles led to an improved student/teacher relationship. The data was analyzed using a descriptive analysis approach. Findings from this research will help educators consider more ways that they can improve their relationships with their students.

Retention of Emerging Scholars at SUNY Brockport

Presenter: Susan Clase

Faculty Sponsor: Dr. Claudette Brown-Smythe

At SUNY Brockport, the term emerging scholar is given to students admitted to the College with the knowledge that they may need extra supports to be successful academically. The research presented in this poster session focuses on the

retention of emerging scholars. Many emerging scholars also fit into other high-risk categories such as first-generation, minority, and economically disadvantaged students. Student retention is a priority for SUNY Brockport. The purpose of this research is to identify programming that has helped emerging scholars succeed and identify perceived barriers to success. Obtaining this information will assist in creating programming to improve the retention of emerging scholars at SUNY Brockport. Qualitative data was collected through one-on-one interviews with current emerging scholar students. Questions were asked regarding their experience at SUNY Brockport. This research aimed to identify methods to enhance programming for emerging scholars. The findings will be shared with the Academic Success Center (ASC) to inform their future programming for emerging scholars.

Student Perception Utilization of Secondary School Counseling Resources

Presenter: Caroline Phillips

Faculty Sponsor: Dr. Robert Dobmeier

This study explores student perceptions of their experience with secondary school counseling resources. There is significance to this study in that it is important to discover and share a better understanding of how students perceive their experience with their counseling resources, which can inform program development. The study examines data collected from a suburban high school setting where participants are graduating high school seniors. Participants responded to survey questions regarding their knowledge and use of counseling resources during their time in school and in their post-secondary preparation. A qualitative analysis of collected survey responses will examine data from 2019 and 2020. The results of this study are pending at the time of project submission.

Student Perception of Telemental Health Amidst COVID-19: A Proposed Study

Presenter: Yezenia Rodriguez

Faculty Sponsor: Dr. Robert Dobmeier

The last year has been the most traumatic period for humanity. The world, as it was once known, has been turned upside down by a global pandemic. COVID-19 is a challenge to humanity; it is not only a health crisis, but also, a social crisis. The global pandemic has disrupted or halted critical mental health services in 93% of countries worldwide. In a short period of time, college students' lives have dramatically changed as they were forced to leave campus, adjust to new living situations, and adapt to online learning platforms. College students' mental health has been a rising concern with a significant number of students experiencing psychological distress. Due to the current pandemic and increased need of service, there is growing empirical support for the use of telemental health treatments. Given the increase in usage of telemental health in recent times, the satisfaction of care and comfort in usage (through the lens of the client) must be examined. This report provides preliminary data regarding college student mental health needs throughout the course of the global pandemic and perceptions of telemental health. It also provides a proposed project outlining next steps for others seeking to complete this study. The proposed survey can be found here: <https://forms.brockport.edu/view.php?id=5004321>

Students of Color Perceptions of Batavia High School.

Presenter: Kaleem Mogent

Faculty Sponsor: Dr. Claudette Brown-Smythe

The intent of this study is to examine how race and ethnicity impact the academic, social, and personal experiences of students of color in a primarily white school. Through the lens of the theoretical framework of Critical Race Theory (CRT), I aimed to capture the experiences of students of color. I conducted a mixed method study that utilized a quantitative survey along with a focus group interview. The survey focuses on the level of acceptance, welcomeness, and support that the school provides. After students complete the survey, they are asked to partake in an interview that allows participants to delve deeper into their experiences in groups of 3-4. I wanted to research and capture the perceptions of students of color because of the systemic and societal influence of racism. The research is still in progress and qualitative data will be analyzed using a thematic approach. Preliminary themes suggest that students of color do not feel that their cultures are recognized and appreciated. Findings from this research will help educators consider the ways in which they can improve the school environment for their non-white students.

The Effect of a Child's Sense of Identity on their Self-Esteem

Presenter: Madelyn Torres

Faculty Sponsor: Dr. Robert Dobmeier

The purpose of this research is to examine the relationship between identity and self-esteem in children ages nine to eleven. When working with children it is important to understand how educating students about identity impacts their self-esteem as they approach middle school. In this study, the students took a pre- and post-survey to assess their level of self-esteem.

The students also participated in a series of four lessons to help build their sense of identity. The lessons included the following topics: uniqueness, race and ethnicity, body image, and overall personal identity. After completing the pre-survey, series of lessons, and post-survey, the researcher will complete a qualitative analysis of the data. The results of the study are incomplete at this time.

The Effects of COVID-19 on the Mental Health of Undergraduate Students

Presenter: Yunoka Fair

Faculty Sponsor: Dr. Claudette Brown-Smythe

The purpose of this quantitative research study is to assess how COVID-19 has affected undergraduate students mental health. The researcher developed a survey along with demographic information including age, gender, and academic year of study. The survey was administered to students via email and the purpose is determine if there are any correlations between a decline in mental health and COVID-19. This information will also help counselors working with students affected by COVID-19 by helping developed a productive approach to therapy. After the data is collected, it will be present to the on-campus counseling center to help assess the needs of students. This information can also be used to assist students with coping with college restrictions as a result of COVID-19 in a preventative attempt to decrease the decline of students mental health.

The Effects of Stress Levels in High School Students due to the COVID-19 Pandemic

Presenter: Hattie Lasal

Faculty Sponsor: Dr. Robert Dobmeier

Since the start of the COVID-19 pandemic, students in grades 9-12 have had to adapt to a new way of learning. With sudden and unprecedented change to a new way of life and learning, students had to begin to navigate and manage completing schoolwork fully online. Such a major change to normal life routine can result in elevated levels of stress. The study aims to examine any change in stress levels in students grades 9-12 due to the COVID-19 pandemic. A quantitative research design was used gather data in the form of a survey. The survey outlined questions centered around stress, quarantine, and the hybrid model of learning. A total of 32 students across grades 9-12 participated in the study. The results showed that overall, a majority of the student participants experienced increased levels of stress, difficulty staying engaged with classes online, and feeling bored and unmotivated while in quarantine. Given the responses to the survey, the school district can better address issues of stress, online learning and quarantine within the school population moving forward.

The Experience of Black Alumni at SUNY Brockport's Counselor Education Program.

Presenters: A-Nija Owens, Tylor, Nagy, Brionna Goins

Faculty Sponsor: Dr. Kara Hiltz

As part of the mission to continually maintain and improve the standards of the Counselor Education Department at SUNY Brockport, our objective is to explore the input and experiences of Black Alumni.

The Impact of Online Learning on Graduate Students Satisfaction

Presenters: Kaleb Colosimo, Rachel, Anderson, Carly Scott, Alyssa Sturmer, Lindsay Yates, , ,

Faculty Sponsor: Dr. Kara Hiltz

The purpose of this research study was to investigate how age impacts the satisfaction of graduate students who are enrolled in online classes. The Office of Special Sessions and Programs at SUNY Brockport sends out a satisfaction survey to all students enrolled in either asynchronous (ASY) or combined (CMB) instructional format online classes. The researchers conducted a meta-analysis of the past five survey data sets to determine if there was any correlation between a graduate students age and their overall level of satisfaction with the online learning process. The research design is correlational. Data includes both answers from Likert-type questions and short answer questions. The research design answers the research question by comparing graduate students inputted age to their answers measuring satisfaction level. Qualitative answers will also be coded into negative and positive responses and compared to graduate students reported age. The findings will be used to develop strategies to improve satisfaction among online learners of all ages and to recommend areas for further research.

The Potential Impact of School Climate on Academic Success in High School Students

Presenter: Katherine Reidy

Faculty Sponsor: Dr. Robert Dobmeier

School climate refers to the perceived experiences of safety, connectedness to school, and quality of relationships between students and staff. School climate plays a role in a students ability to perform academically. When a student feels a

connection to school and feels supported in their school environment they are more likely to attend school and receive higher marks in school. The overall goal of this study is to examine a possible relationship between school climate and academic success of high school students. A quantitative research design using a survey was used to measure students perspective on school climate. The survey asked questions related to school climate: school safety, bullying, school connectedness, and inclusivity. The survey also asked questions related to academic success: attendance and grade point averages. The survey was offered to all students in the school. Of the 1,090 students within the school data has been collected from 170 students. Based on the data collected from the survey the school will be able to assess what areas of school climate must be improved in order to better serve the needs of its students. Research data at this time is still being collected.

The Relationship Between Mental Health Clinician Burnout and Changes in Their Work and Personal Lives Related to the COVID-19 Pandemic

Presenter: Amy Durkee-Poole

Faculty Sponsor: Dr. Claudette Brown-Smythe

Research suggests that burnout affects most mental health providers (MHPs) at some point in their careers, and that it has a negative impact on clinicians, the workplace, and patient care. Several risk factors associated with burnout that have been identified in the research correspond to changes in the work and personal lives of MHPs due to the COVID-19 pandemic. This study seeks to understand the relationship between clinician burnout and changes in their work and personal lives that were precipitated by the COVID-19 pandemic. Both quantitative and qualitative data was collected via a voluntary electronic survey of MHPs working in outpatient settings in a division of the Veterans Health Administration in the northeastern United States. For the survey, the researcher adapted an existing instrument to measure burnout and designed questions to measure clinicians perceptions of their workload, work environment, clinical effectiveness, and the stressfulness of their personal lives. The researcher-designed questions included comment boxes for participants to explain responses if they wished. Once data is collected, the quantitative results will be analyzed using descriptive statistics and correlational analyses and the qualitative results will be integrated to identify any common themes that may inform future research or mitigation strategies.

The Relationship Between Self-Actualization and Recidivism.

Presenter: Danielle McKeon

Faculty Sponsor: Dr. Robert Dobmeier

The United States justice system currently has an issue regarding recidivism. Data has shown that 70 percent of people reentering society from incarceration are expected to re-offend within five years of being released. This is a failure for an institution that is attempting to rehabilitate people who have committed crimes. This study aims to better understand the potential therapeutic needs of people re-entering society to reduce rates of recidivism. Specifically, to see if the extent to which someone is self-actualized has a significant impact on their likelihood to re-offend. Self-actualization is a developmental theory that discusses how someones personality grows and matures over a lifetime. To test the hypothesis that level of self-actualized has a negative relationship with the likelihood of recidivism, people re-entering society will be assessed for their level of self-actualization. Each participants results will be observed alongside their level of risk to see if there is a correlation between the two. The data for this research has yet to be collected.

The Role of Teen Empowerment on Youth Success

Presenters: Jackie Bors, Ariana, Nadir, Jen Marmolejos

Faculty Sponsor: Kara Hiltz

Teen Empowerment is an organization in Rochester, NY, that empowers youth by working with them to make positive changes within their communities. Young people are provided with resources and training, then they are encouraged to think critically and work collaboratively with others. Teen Empowerment has worked with high-risk teens by employing them to create social change. Instead of being viewed as a part of the problem in their urban communities, teens now engage in developing solutions in their communities through youth-led initiatives. The youth are given the opportunity to be leaders that build peace, tolerance, and community. This paper explores the feelings and experiences of adult alumni of Teen Empowerment and how their lives were impacted and continue to be affected by their participation.

Therapy in the Time of COVID-19: Counselor Perceptions of the Therapeutic Alliance

Presenter: Jill Snitzel

Faculty Sponsor: Dr. Claudette Brown-Smythe

The Therapeutic Alliance between client and clinician has long been regarded as one of the most influential and predictive factors of successful outcomes in therapy. The development of the therapeutic alliance typically begins with the initial

meeting and continues to develop throughout the course of the therapeutic relationship. Traditionally, this development occurs in-person. With the emergence of the COVID-19 pandemic and the need for precautionary measures, such as social distancing, virtual therapy became the primary, or in some cases, the only option for treatment delivery. With this sudden shift, it is imperative to understand the ways in which therapeutic relationships are being affected. This qualitative study, which was conducted through semi-structured interviews, explores the perceptions of clinicians working in a chemical dependency clinic, regarding their utilization of telehealth during this phenomenon. More specifically, this research provides a deeper understanding of the benefits and barriers telehealth therapy has had on the development and maintenance of the therapeutic alliance. After analyzing the data using thematic analysis, the information will be communicated to the research site for the purpose of making recommendations for further training and practice.

Internship Poster Palooza

A Semester at the Center for Youth

Presenter: McKenna Kerwan

Faculty Sponsor: Dr. Joshua Fegley

My presentation will include the Areas of Responsibility that my internship at The Center for Youth Services has touched on, including Areas II: Planning, III: Implementation, IV: Evaluation and Research, VI: Communication, and VII: Leadership and Management, as well as detailing the major projects I've worked on: a Trauma Informed Care Guide for employees, a life skills seminar on clothes repair and other functional skills for youths experiencing homelessness, and a budget cookbook that takes the cultural needs of foods as emotional aid for youths. I will go into how all of these have helped me grow as a professional, strengths (i.e.. presenting) and weaknesses (i.e.. free-form projects) that have been highlighted, and my next steps for my career. My daily routines and responsibilities (research, compile, format, consult, etc.) will be chronicled as well.

Living Life United

Presenter: Nicole Berna

Faculty Sponsor: Dr. Linda Balog

A public health intern with the United Way shares her experience with a 15-week, 525-hour internship experience. The United Way is an umbrella organization that works as a convener with various agencies, organizations, and communities to promote health, equity, and education. In an effort to expand on both the necessary knowledge and experience as it relates to the responsibilities of a health education specialist, several tasks and projects were undertaken. The major project and the culminating piece of the internship revolved around hosting focus groups and conducting research to gather the necessary information/data to influence the creation of a social media campaign to influence and support the safety of out of school activities and programs.

Havoc and Hodgepodge at the Health Department

Presenter: Ava Sheahan

Faculty Sponsor: Dr. Linda Balog

The pandemic has created unique and unprecedented circumstances that have impacted the functions of municipal health departments drastically. In the Environmental Health branch of the Monroe County Department of Public Health, county employees are just beginning to return to their 'normal' jobs (lead, pool, and gym inspections...). Due to the structure and politics of the health care system in the United States, county health departments were left with no choice but to over-utilize their existing staff in order to meet the demands of the workload created by outdated and unorganized pandemic response processes. While there have been countless positive results, there are many challenges this organizational situation poses to obtaining an engaging educational experience as a public health education intern. The inside scoop (within legal bounds) on the immunization operation will be revealed while contextualizing the events using information learned in previous courses and life experiences. And, certain situations that pertain to the Seven Areas of Responsibility (that are essential knowledge for all health education specialists) will be highlighted.

Exploring the Affects of Public Health on the Latinx Community of Rochester

Presenter: Wolfgang Lobo

Faculty Sponsor: Dr. Darson Rhodes

A senior public health major shares their experience interning at Ibero American Action League, one of the few non-profits in the Rochester area whose sole focus is serving the Latinx community. Though there are many branches of Ibero that serve the Latinx community of Rochester the internship was performed at Centro de Oro, Ibero's senior center.

Projects done at the internship demonstrate the seven areas responsibility for public health. Some examples are; providing at home emergency meals, assessing the affects of COVID on mental health, and more.

Internship at the Monroe County Office of Probation- Scholar's Day 2021

Presenter: Matthew Schiliro

Faculty Sponsor: Dr. Laurel McNall

This is a presentation regarding my Psychology Internship at the Monroe County Office of Probation. I will discuss the job itself, the work environment, how the internship affected my life now and after graduation, and I will provide advice to other students who will have a Psychology Internship in the future.

Networking To Make A Change

Presenters: Emily Nojeim

Faculty Sponsor: Dr. Darson Rhodes

An intern majoring in public health shares her experience in her 15-week, 525-hour internship experience at Lake Plains Community Care Network. Lake Plains is an organization that focuses on improving access to health services in the Genesee, Orleans, and Wyoming Counties. They collaborate and partner with other local organizations regarding mental health, behavioral health, and addiction programs. Projects undertaken incorporate the seven areas of responsibility, that are so important for health education specialists. These projects include creating educational flyers on suicide prevention, as well as opioid addiction. A major project of the intern is implementing a NARCAN training, while educating individuals on identifying symptoms of an opioid overdose and having the opportunity to be a part of, and work at the COVID-19 vaccination clinics held at Genesee Community College. ;

585 With Center For Youth

Presenters: Peter Ravesi, Elizabeth, Rein

Faculty Sponsor: Dr. Linda Balog

Two public health majors share their experience of 525 hours with the Center For Youth. ;Their mission is partnering with youth to realize their full potential, by creating opportunities, removing barriers, and promoting social justice. The Center For Youth established the first Host Home Program in New York State, and since then has provided over 8,000 of Rochester's youth community with emergency shelter services. the Projects completed with the prevention education services team addressed the seven areas of responsibility that are essential for all health education specialists. Some projects include, using programs and ;industrial tools like Adobe for directing, producing, editing, and synchronizing footage used for educating the youth of Rochester while using research based methods to conduct these interventions backed by science.

Accessify the SUNY Brockport Campus

Presenter: Sierra Lash

Faculty Sponsor: Dr. Linda Balog

A public health education intern shares experience working for Student Accessibility Services (SAS) on the SUNY Brockport campus located in the Academic Success Center. SAS focuses on providing accommodations for SUNY Brockport students with disabilities to support them in their academic success. Projects in the internship addressed the Seven Areas of Responsibility that are essential for all Health Education Specialists, specifically Area I: Assess Needs, Resources and Capacity for Health Education/Promotion and Area IV: Conduct Evaluation and Research Related to Health Education/Promotion. A number of SUNY Brockport students are eligible for accommodations that would encourage a rewarding academic experience but are not registered with SAS. Promoting SAS services such as assistive technologies and the Student Support program help support students succeed with on campus academic and accessibility resources that reduce the stress of the college experience. Student feedback is essential to these resources as student opinions help SAS modify or improve programs. The intern has a particular focus on the number of students who use smart pens and note taking applications, and the researched effectiveness of these technologies in assisting students with disabilities in the college environment.

My Time at the Monroe County Health Department

Presenter: Madison Dudley

Faculty Sponsor: Dr. Linda Balog

A public health major shares her 15 week experience at the Monroe County Health Department amid the pandemic chaos. The Monroe County Health Department works with community partners to achieve optimum health status across the community and proactively interacts with the environment to make sure health issues are recognized and addressed in an

efficient manner. ;The seven areas of responsibility are essential for all health education specialists and the projects at the Monroe County Health Department addressed these seven areas. Two projects that were completed are a presentation on preventing sexually transmitted infections in youth ages 12-21 and a project on the vaccination training for nurses. ;

Psychology Internship at Student Accessibility Services (SAS)

Presenter: Adeola Akinyemi

Faculty Sponsor: Dr. Laurel McNall

This poster will describe my internship experience at Student Accessibility Services (SAS) at SUNY Brockport during the Fall 2020 semester. ;

My Experience at CCE

Presenter: Madeline Veilleux

Faculty Sponsor: Dr. Darson Rhodes

A public health major shares her experience in her 15-week, 525-hour internship experience at Cornell Cooperative Extension Of Orleans County. This organization responds to the needs of local residents with unbiased and research-based information. They also provide tools and education that people have come to depend on and trust. Projects in the internship addressed the seven areas of responsibility that are essential for all health education specialists. Some projects include: doing research to make infographics, providing creditable resources, assisting in food distributions, helping with programs provided, and social media campaigning. ; ;

Internship at the Orleans/Genesee County Health Department

Presenter: Jared Spring

Faculty Sponsor: Jacqueline Dipzinski

A Public Health major shares his experience in his 15-week, 525-hour internship experience at the Orleans/Genesee Public Health Department. This agency is a shared services arrangement that promotes the necessary safe and healthy environment, and health behaviors that lead to improved health outcomes and community quality of life. They work on using the resources they have to ensure their community is getting the best health possible. Projects in the internship that address the seven areas of responsibility are essential for all health education specialists. ;Some projects include: collecting and analyzing COVID data from the past year, working on educating the migrant workers on travel restrictions, COVID vaccinations, and the general public health resources available to them in order to keep them safe and healthy, and working at various points of distribution for the COVID vaccine.

In the Heart of 14621

Presenter: Christine Boamah-Mensah

Faculty Sponsor: Dr. Darson Rhodes

A public health major shares her experience in her 15 week, 525-hour internship experience at Community Lutheran Ministry Inc. Community is an urban outreach ministry which serves one of the poorest neighborhoods in Rochester, NY. This organization focuses on after-school programs for elementary school children and a traveling summer day camp. The ultimate goal of this agency is to provide a safe, loving and nurturing environment for children and to ensure that they learn how to read and write, as well as gain experiences that they otherwise would not have been exposed to. There are seven areas of responsibility that are essential for all health education specialists and have been addressed through projects at the internship. Some projects include the development and implementation of a hand washing program for children and the creation of several health education related bulletin boards. ;

Health Education at Cornell Cooperative Extension

Presenter: Emily Zeglen

Faculty Sponsor: Dr. Darson Rhodes

A Public Health Education major will share her experiences with her 15-week, 525-hour internship at Cornell Cooperative Extension of Genesee County. Cornell Cooperative Extension is a land-grant organization of Cornell University. Cornell Cooperative in Genesee County provides a wide variety of services and education to the rural setting of Genesee County. Projects in this internship addressed the seven areas of responsibility that are essential for all health education specialists. Some projects the intern did include: teaching nutrition and healthy cooking education classes via Zoom, creating outreach materials such as nutrition and health tips for CCE websites, and establishing community connections with other organizations.

Public Health Educators: Behind the Scenes Heroes of Health

Presenter: Noah Zimmerman

Faculty Sponsor: Dr. Darson Rhodes

I have been doing my 15-week internship at the Monroe County Department of Public Health (MCDPH), more specifically the Fleet Point of Distribution (POD) and the Westfall POD. Right now, the MCDPH has been focused on distributing vaccines to patients during the COVID pandemic. The MCDPH also focuses on different areas of public health to a lesser extent than COVID right now; one of these areas is pool health and safety, which is something I have received training for. We are doing two projects that together address the seven areas of responsibility in the field of public health. One of these projects is to do research on the effects of the COVID-19 quarantine on substance use and to educate the public on the topic. The other project is to do research on Hepatitis C and HIV Co infection and to educate the public on the topic.

Prevention and Outreach Services, SUNY Brockport

Presenter: Salena Digregorio

Faculty Sponsor: Dr. Joshua Fegley

This is an oral presentation for Scholar's Day 2021, In regards to my Internship with Prevention and Outreach Services. This presentation highlights a day in the life of a POS intern such as job duties and responsibilities. This presentation also discusses my semester project in collaboration with POS and presents the achievements and comments on my semester project. This presentation talks about the mission of POS and my advice to future interns for this placement as well as my next steps and my acknowledgments.

Educating the Youth through Application of Research

Presenter: Sanya Jamal

Faculty Sponsor: Jacqueline Dipzinski

Cornell Cooperative Extension of Monroe County. An organization aimed at helping the youth through educational lessons about climate change, agriculture, and nutrition through research done at Cornell University. They tailor events for all ages as another method of education. A personal project that I developed with my co-intern from scratch addresses the seven areas of responsibility. The project is called Mindful Eating: Healthy Living for Teenagers. The workshop will teach kids the importance of healthy eating, exercising, and have three career panelist that are in the public health field.

Internship for Prevention and Outreach Services at SUNY Brockport

Presenter: Kailey Kucinsky

Faculty Sponsor: Jacqueline Dipzinski

This is my Scholars Day 2021 Presentation. In this presentation I discuss a day in the life at my internship at Prevention and Outreach Services at SUNY Brockport. I also give brief information about POS and what they stand for. I will cover my major semester project and discuss where I am

When Life Throws You Rainy Days, Play in Puddles

Presenter: Ciarra McFarland

Faculty Sponsor: Dr. Linda Balog

Overall view of Spring 2021 semester internship at Monroe County Health department

Being a Remote Intern at the Monroe County Department of Health

Presenter: Julia Fried

Faculty Sponsor: Dr. Joshua Fegley

This poster will consist of information about being a fully remote intern as a public health and health education major at the Monroe County Department of Health. In my poster, I will discuss numerous topics such as listing personal and professional goals for myself while completing my internship, describing the company profile, discussing the job duties and responsibilities, advice to students, describing a day as being a remote intern, my next steps, skills, sample project and acknowledgements, ;

The Development and Evaluation of a Mobile Health Intervention for Smoking Cessation In Latino's Living With HIV

Presenter: Sarah Mahar

Faculty Sponsor: Jacqueline Dipzinski

Students in the Department of Public Health and Health Education are expected to complete a capstone in the form of a public health internship. I spent my semester working on a mobile health intervention for smoking cessation in Latinos living with HIV at the University of Rochester Medical Center. This presentation walks viewers through this experience and explains the health program as a whole as well as the piece I was assigned to. Viewers will learn about the history of Decidetexto and the development of a variation of this program that is tailored to Latino's living with HIV.

Pandemic Pandemonium

Presenter: Allaura Atherley

Faculty Sponsor: Dr. Darson Rhodes

The journey of a 15-week, 525-hour internship of a public health major, describing her experience at Monroe County Department of Public Health. The MCDPH offers a variety of crucial services that better the community including but not limited to immunization clinics, STD/STI testing, Environmental Health, Public Safety, Maternal & Child Health, Early Intervention, and Emergency Preparedness. COVID19 has been a main priority of the MCDPH for the past year, offering testing and vaccinations to thousands of people both in and out of the county. Projects in the internship addressed the seven areas of responsibility that are essential for all health education specialists. Some projects include: managing the call list of eligible people in line for the COVID19 vaccine, scheduling clinicians to be vaccinators and working within a COVID19 vaccination site, creating lesson plans for 'Prevention of STIs in Youth Ages 12-21' and 'Information on Consent and College Age Students'.

My Internship Experience at Cornell Cooperative Extension Monroe County

Presenter: Edward Dreeson

Faculty Sponsor: Dr. Joshua Fegley

A description of my internship including shadowing cooking classes for low-income families and young adults, teaching nutrition classes to kids in grades 3rd-6th. Also reading dairy agriculture to children grades K-3 and helping put together a major project about how today's teenagers can stay healthy in both body and mind during these strenuous times of living in the pandemic.

Pillowcase Project American Red Cross Internship

Presenter: Alexandra Cuccaro

Faculty Sponsor: Dr. Linda Balog

A public health education intern shares experiences at the American Red Cross, an organization that strives to help people through education on general preparedness and fire safety, as well as helping communities in blood donations and disaster relief. Projects in the internship addressed the seven areas of responsibility that are essential for all public health education specialists. This project includes a focus on the overall impact the Pillowcase Project has on its audience. The Pillowcase Project teaches kids from grade 3- 5 on general preparedness and home fire safety. The goal is to determine the effectiveness of the project by administering a pre-post assessment on the target population.

An Internship Today, Leads to a Career Tomorrow.

Presenter: Victoria King

Faculty Sponsor: Dr. Darson Rhodes

A public health major shares her experience in her 15-week, 525-hour internship experience at the Monroe County Department of Public Health (MCDPH). This organization consists of multiple departments with the goal of protecting the health and safety of the residents in Monroe County through preparing and responding to large-scale public health emergencies and small-scale communicable disease events. The project through this internship will address the seven areas of responsibility that are essential for all health education specialists. This project will include my experiences at the MCDPH, my placement at a vaccination site, my roles and responsibilities as a part of the scheduling/planning team, along with my experience of creating two research based presentations that focus on teen dating violence and substance use disorders for women. I will outline the importance I have found in partaking in this internship and how I believe it has/will affect my future and career choices. ;

URMC Cardiac and Pulmonary Rehabilitation Internship Program

Presenter: Meghan Bates

Faculty Sponsor: Amanda Shearer

Senior Exercise Science majors have the opportunity to participate in a wide variety of settings for their internship. The purpose of this presentation is to inform future exercise science interns about what an internship at a Phase II Cardiac

Rehabilitation Program would look like. In this poster presentation I will cover the following information: my personal and professional goals for the internship, job responsibilities, skill acquisition, advice to students, and my future career aspirations. During my internship, I am proud of the project I developed that will continue to benefit patients in URMCS Cardiac Rehabilitation Program. I made an educational PowerPoint on basic information about exercise prescriptions for the patients. My curiosity of how active the patients are on a regular basis when they are not attending cardiac rehabilitation led to the development of this project. I was passionate about educating the patients on why it is important to decrease your sedentary behavior. Additionally, I wanted to work on goal setting and monitoring with the patients. I predict working with patients to establish goals will increase motivation and participation in the program.

Disaster Relief and Preparedness Education at The American Red Cross: An Interns Perspective

Presenter: Alivia Green

Faculty Sponsor: Dr. Linda Balog

A public health major shares her experience in her 15 week, 525-hour internship experience at the American Red Cross. The American Red Cross is a humanitarian organization that provides emergency assistance, disaster relief, and disaster preparedness education. Projects in the internship addressed the seven areas of responsibility that are essential for all health education specialists. During these challenging and uncertain times, the organization had to become creative in ways to utilize the virtual learning world in order to continue their efforts in educating the public on disaster preparedness.

A Day in the Life of a Red Cross Intern

Presenter: Nicholas Robbins

Faculty Sponsor: Dr. Linda Balog

The American Red Cross is always there in a time of need, organizing thousands of programs throughout the country every year to help those affected by emergencies or disasters. This is done through blood drives, providing for military families, and disaster preparedness. The Public Health Intern has successfully taught students and adults throughout Western New York about emergency preparedness and fire safety. More specifically, three main Red Cross programs were presented during the spring semester: 'Prepare with Pedro', 'Pillowcase Project', and 'Homes Made Safer'. The projects include performing outreach to individuals, organizations, and schools in Western New York and then implementing these programs accordingly. The Public Health Intern reviewed research and taught using the seven areas of responsibility that are essential for all public health specialists.

An Intern at Monroe County Health Department

Presenter: Amanda Ciorciari

Faculty Sponsor: Dr. Joshua Fegley

This presentation will include facts about the health department and how they are working with the COVID-19 pandemic. This includes vaccination sites, spending, and who they are in collaboration with. I am an intern for my spring semester and will add my own personal experiences working for them, and what it is like having a full time job while being a full time student. I want to include a list of pros and cons to the experience, and the reality of what it is like working in my major out in the real world.

More Than Stop, Drop, and Roll

Presenter: Mackenzie Lawrence

Faculty Sponsor: Dr. Linda Balog

A public health education intern shares her experience at SUNY Brockports Department of Environmental Health and Safety. This department is designed to ensure buildings are safe for students, faculty, and staff. The Department of Environmental Health and Safety is also responsible for various training programs such as blood borne pathogens, fire safety, laboratory safety, and many others. Projects in this internship addressed the seven areas of responsibility that are essential for all health education specialists. Some projects include: Fire Marshall inspections, refining training programs, developing presentations for summer orientation.

Changing the Lives of the Youth: Youth Mentoring Services

Presenter: Paige Frisina

Faculty Sponsor: Jacqueline Dipziski

A public health major shares her experience during her 15 week, 525-hour internship experience at Youth Mentoring Services of Niagara County. This organization is a non-profit organization that strives for making a difference in the lives of children and youth through a relationship with a caring adult while also assisting them in achieving their highest potential

as they grow to become productive, responsible and caring citizens. Projects in the internship addressed the seven areas of responsibility that are essential for all health education specialists. Some projects included grant writing as well as developing and implementing lessons on a curriculum of safety.

The Gap Between

Presenter: Giorgia Liounis

Faculty Sponsor: Dr. Linda Balog

A SUNY Brockport public health student shares her experience through her 15-week long, 525-hour internship at the U of R Medical Center. Adjacent to Strong Memorial Hospital, the Medical Centers: Public Health Sciences Department receives yearly grants to further its research and standard of care. The intern participated in a COVID-19 project that addressed the seven areas of responsibility that are required for health education specialists. This project examined the attitudes and related behaviors impacting different populations in regard to the virus, and the intern's role as part of this team. ;

My Experience at the Genesee County Department of Public Health

Presenter: Leah Orsini

Faculty Sponsor: Jacqueline Dipzinski

For this presentation, I will be talking about my experience that I had during my internship at the Genesee County Department of Public Health. I will talk about my experience at the vaccine clinics, the testing clinics and my responsibilities at each along with lots more information about my responsibilities and experiences.

Internship Experience at RIT

Presenter: Erin Lawson

Faculty Sponsor: Dr. Linda Balog

A Public Health and Health Education major shares her internship experience with Health Promotion at Rochester Institute of Technology (RIT). Health Promotion is one of the many departments offered by RIT's Division of Student Affairs in order to provide programs, services, and information to RIT students. The projects and tasks throughout this internship address the seven areas of responsibility that are essential for all health education specialists. Some of the specific projects from this 15-week, 525-hour internship include "Play it Safe Kits", The Wellness Peer Educator Program, and Recharge Day Implementation Work.

Rehabilitation Programs for Common Athletic Injuries

Tibiofemoral and Patellar Dislocations

Presenter: Molly Ryan

Faculty Sponsors: Michael Militello, Sue Wielgosz

Tibiofemoral (knee) dislocations are devastating injuries and usually require surgical intervention. Patellar dislocations are less serious and are often treated with conservative measures. If they are recurrent, they often require surgery. Both of these injuries require a quick and systematic evaluation of the initial injury and an immediate treatment plan. Surgical treatment for a tibiofemoral dislocation is necessary if the joint is unstable after reducing the dislocation. ; ; The rehabilitation is a long and difficult process. The rehabilitation lasts usually between 9 and 12 months. ; ; Recurrent lateral patellar dislocations are more common than tibiofemoral dislocations. The surgical intervention for this injury is usually a medial patellofemoral ligament reconstruction. ; ; Rehabilitation for surgical patellar dislocations requires 6 to 12 months to achieve optimal recovery. This presentation explores the treatment and rehabilitation programs for tibiofemoral and patellar dislocations.

Lisfranc Injury

Presenter: Sabrina Bucher

Faculty Sponsor: Michael Militello

A true Lisfranc injury is one that is not very common in the general American population. However, new research shows that this injury may be rising among athletes. The Lisfranc injury happens when one or more of the metatarsals displace from the tarsus. Research shows that this injury is often misdiagnosed. Treating this injury in a timely manner is very important. Delayed treatment may cause long-term disabilities. The rehabilitation process can be both non-surgical or surgical. In either course of treatment, the recovery period is lengthy. This presentation explores the etiology, surgical versus non-surgical interventions, and the rehabilitation process associated with both courses of action.

Spondylolisthesis and Associated Conditions

Presenter: Christopher Sanders

Faculty Sponsor: Michael Militello

Spondylolisthesis is a condition involving the lower vertebrae. It can best be described as the forward displacement of a vertebrae over a lower segment. The cause of spondylolisthesis is multifaceted involving multiple etiologies and adjacent diagnoses. Spondylolisthesis effects 3 main demographics: adults over 50 years of age, genetically predisposed individuals, and most commonly young athletes. This research paper aims to target and analyze the athletic demographic while acknowledging all groups. After reading this paper, clinicians will have a better understanding of spondylolisthesis and its related conditions. Clinicians will also have guide for the development of a surgical rehabilitation plan to implement as reference. Treatment usually begins conservatively. However, it is dependent on the severity and associated symptoms. Both avenues of approach have shown significant success

Anterior Elbow Dislocations with Olecranon Fractures

Presenter: Sierra Masiello

Faculty Sponsor: Michael Militello

This presentation discusses posterior elbow dislocations with olecranon fractures. The presentation begins with a description of important anatomy in the surrounding area of the injury. It transitions into a description of the injury, the mechanism of injury, and how the previously stated anatomy is affected. The presentation concludes with different treatment methods and an extensive rehabilitation program that includes a functional progression for return to play. ;

Shoulder Labrum Tears

Presenter: Danielle Hemly

Faculty Sponsors: Michael Militello, Sue Wielgosz

This presentation explores the shoulder and more specifically a shoulder labrum tear. The shoulder is a complex joint with a large range of motion. An increased range of motion leads to instability and a high potential for injury. The rotator cuff muscles, along with other accompanying muscles stabilize the shoulder during daily activities. This presentation explains the anatomy surrounding the shoulder joint. It also dives into the etiology, pathology, signs and symptoms, and treatment of a labrum tear. The research surrounding labrum tears suggest that surgical interventions are typically most common with this type of injury. Return to play data from surgical techniques and non-surgical interventions is compared in this presentation. My literature review culminates with a comprehensive rehabilitation program for patients recovering from a shoulder labrum tear.

Grade 3 Lateral Ankle Sprains

Presenter: Kayla Staquet

Faculty Sponsor: Michael Militello

The purpose of this presentation is to examine the initial etiology and pathology of grade 3 lateral ankle sprains, treatment by way of non-operative and post-operative routes, and the subsequent rehabilitation culminating with return to play. Rehabilitation techniques follow the phases of physiological healing while progressing forward with early joint mobility, as well as assessment of strength deficits. ;Improper rehabilitation of lateral ankle sprains often results in chronic ankle instability, capsular thickening/impingement and adhesions that negatively impact normal biomechanics. Functional progression and outcomes are discussed in this presentation. ;The rehabilitation is designed with the prioritized goal of guiding the athlete in the return to participation. In order to safely and confidently clear an athlete for competition, they must be able to demonstrate adequate and consistent pre-injury strength, range of motion, and proprioception parameters.

Lower Leg Compartment Syndrome

Presenter: Hijiri Sano

Faculty Sponsor: Michael Militello

This presentation explores the complications, treatments, and rehabilitation associated with Compartment Syndrome for the lower leg. Compartment Syndrome is a medical emergency that may lead to serious complications such as amputation. The presentation explains, in detail, the anatomy of the lower leg, the etiology of the injury, and the pathology of this condition. Additionally, conservative versus surgical interventions are discussed.

Patellar Tendon Ruptures

Presenter: Keara Miller

Faculty Sponsor: Michael Militello

This presentation discusses all aspects regarding patellar tendon ruptures. The presentation begins with an extensive introduction to the relative anatomy of the knee joint and describes the important role of this tendon within the knee joint. I also explore the etiology, pathology, and prognosis for this specific injury. Then, after discussing the medical intervention, I explain the surgical and rehabilitation processes from beginning to full recovery.

Ulnar Collateral Ligament Injuries and Rehabilitation

Presenter: Jessika Yurko

Faculty Sponsor: Michael Militello

The Ulnar collateral ligament (UCL) is the most commonly injured ligament in overhead throwing athletes. This ligament is imperative in supporting valgus stress in the medial aspect of the elbow. Injury to the UCL is most commonly correctable from various surgical techniques and extensive rehabilitation. Following surgical repairs or reconstructions, athletes often return to the same level of play or exceed their previous level of play. The following presentation examines the anatomy of the elbow, mechanism of injury to the UCL, surgical repair and reconstruction and an extensive rehabilitation program for returning throwing athletes back to high level of performance.

Overview, Treatment, and Rehabilitation Approach to; Iliopsoas Impingement with Associated Labral Tear

Presenter: Taylor Elizabeth Dwyer

Faculty Sponsor: Michael Militello

The hip is a very stable joint. It plays an important role in our everyday movements and weight bearing. The tracking of the central iliopsoas tendon can cause numerous issues at the hip joint such as impingement and acetabular labrum tears. This type of injury is seen more prominently in the young female population. The location of this injury is problematic being that it can affect ones daily ambulation. Anterior hip pain is common and depending on the lifestyle of the individual may be debilitating. Deciding on the course of treatment depends on the individual's lifestyle. A conservative approach would involve activity alterations, but for the sake of a young active individual one would take a more aggressive surgical approach. This presentation explains the surgical procedure and rehabilitation process associated with iliopsoas tendon pathology. ;

TFCC Injuries and Ulnar Shortening Procedure

Presenter: Dorothy Wernick

Faculty Sponsor: Michael Militello

The triangular fibrocartilage complex (TFCC) is located on the ulnar side of the wrist. It is known for its support in the wrist joint and being the articulation point between the ulna and the carpal bones. If injured, the result may affect the hand, wrist, and elbow joints. Depending on the severity, a surgical fix may be required to prevent further or permanent damage to the cartilage and bones. If surgery is not required, there will likely be an immobilization period. A genetic condition in which the ulna is longer, known as positive ulnar variance, will result in easier tearing of the TFCC. In these cases there is a common surgical procedure to shorten the ulna by removing a piece of the bone. This will ensure proper alignment of the surrounding structures and prevent further injury.

MCL Injury and Rehabilitation

Presenter: Jason Wheatley

Faculty Sponsor: Michael Militello

The knee joint, one of the largest in the body, is maintained by the surrounding musculature, four prominent ligaments, and the meniscus. Damage to the Medial Collateral Ligament (MCL) is typically the result of a lateral blow to the knee. This force from the lateral side subjects the MCL to a large amount of increased stress, and if strong enough will sprain the ligament. The severity of the sprain can be classified by a grading system from 1-3: a grade 1 sprain is more minor damage, grade 2 is a partial rupture of the ligament, grade 3 is a complete rupture of the ligament. Grades 1 sprains are typically treated with conservative methods. Grades 2 and 3 sprains are often treated conservatively, but may need surgical repair. However, due to the MCLs attachment on the medial meniscus of the knee, when the MCL is sprained there can be underlying damage to the meniscus resulting in more knee instability. This presentation outlines the surgical procedure and rehabilitation associated with MCL sprains and an associated medial meniscus tear.

Cervical Spine Injuries

Presenter: Lydia Johnson

Faculty Sponsor: Michael Militello

Cervical Spine injuries are a deadly risk in sport. The cervical spine is composed of the first 7 vertebrae of the spine. The cervical region experiences significant forces when participating in sport. Serious pathologies are unstable fractures and dislocations. These can occur through many different mechanisms, a common one being a compression force from axial loading. A prime example of this injury would be spear tackling in football. The prognosis of these injuries could result in quadriplegia or even death. This presentation explores both surgical and non-surgical interventions in the treatment of cervical spine injuries. A comprehensive rehabilitation protocol is also discussed.

The Age of Covid: Ethnological, Literary-critical, and Artistic Explorations of Life at Brockport This Year, Inspired by Edith Wharton's *The Age of Innocence*.

Socializing in the Age of COVID-19 at SUNY Brockport

Presenters: Thomas Verhay, Tyler, Campo, Jason Keirsbilck, Cole Pennella

Faculty Sponsor: Dr. Austin Busch

How the four of us socialize with each other and ourselves during the pandemic at Brockport

Consumption During COVID

Presenters: Misba Mazhar, Marissa, Fitzgerald, Annaliese Schiano,

Faculty Sponsor: Dr. Austin Busch

Following the lead of Edith Wharton's *The Age of Innocence*, which analyzes 19th century New York society from an anthropological perspective, this presentation will describe and analyze social practices at Brockport through an ethnological lens. It will focus on situations and interactions that continue to evolve and transform under the pressure of enforced social distancing and analogous constraints in this current age of COVID.

Modern Day Age of Innocence

Presenters: Stacey Do, Daniel, Blaisdell, Adam Graziano, Nicholas Mills

Faculty Sponsor: Dr. Austin Busch

The topic of our choosing will be conformity between *Age of Innocence* and COVID. It questions the social struggles of the characters in the *Age of Innocence* as well as its relation to present-day living with the COVID-19 pandemic. It is a unique contrast; we will emphasize more on how the idea of conformity translates between the *Age of Innocence* and our ongoing situation. For instance, Ellen Olenska stands out due to her lack of concern for social expectations. Whereas we do not have any options but to conform to our 'new normal.' Our Scholar's Day project will be in the format of a PowerPoint with several slides. We can reiterate the PowerPoint by also verbally elaborating our main points mentioned in the platform. We will begin by providing some background on the *Age of Innocence*, and then incorporating our own experiences, comparing our own lives to those in the book (Newland Archer, Ellen Olenska, and May Welland). To solidify our comparisons, we will be analyzing sections of the novel. An example is when Countess Olenska came back from Europe and was the black sheep of New York City's bourgeoisie. It relates to the COVID-19 pandemic because of the strain that COVID has had on our relationships as we adapt to a new normal like the Countess had to do. We also can relate to the Countess in enduring the social pressure her new environment has put on her in this new and strange world. Our final goal of this presentation is to help people relate *The Age of Innocence* to our current lives in the COVID-19 pandemic. Finally, we will enhance the validity of our argument by speaking with our Honors 112 professors, as well as Anthropology professor Dr. Alex Smith. Their guidance will grow our understanding of this present culture while linking to the novel. Also, we will have a better knowledge of how people generally adapt to this pandemic. By speaking to both professors, we will link two unique perspectives (Historical and cultural). It will undoubtedly strengthen our ethnographic standpoint. These sources will deepen our understanding of the topic and link our social issues with the *Age of Innocence*.

The Age of an Innocent Pandemic

Presenters: Lily Wegerski, Katrina, Trueworthy, Kathleen Maurer, Olivia Furman

Faculty Sponsor: Dr. Austin Busch

The poem crafted for this project contains original quotes from Edith Wharton's novel, *The Age of Innocence*. The video itself contains merges the classic era of the 1800s and our modern-day societal struggle: COVID-19. There are many thematic elements derived from the novel that are portrayed throughout the video. Can you find them all?

The Separation of Societies

Presenters: Isabella Palermo, Ryan, Culhane, Leila Doerrer, Emily Vaden

Faculty Sponsor: Dr. Austin Busch

Following the lead of Edith Wharton's **The Age of Innocence**, which analyzes 19th century New York society from an anthropological perspective, this presentation will describe and analyze social practices at Brockport through an ethnological lens. It will focus on situations and interactions that continue to evolve and transform under the pressure of enforced social distancing and analogous constraints in this current age of COVID.

The Age of Pandemic

Presenters: Zoey Haynes, Malini, Chanthabandith, Alisha Vahora, Sydney Bolton

Faculty Sponsor: Dr. Austin Busch

Following the lead of Edith Wharton's **The Age of Innocence**, which analyzes 19th century New York society from an anthropological perspective, this presentation will describe and analyze social practices at Brockport through an ethnological lens. It will focus on situations and interactions that continue to evolve and transform under the pressure of enforced social distancing and analogous constraints in this current age of COVID.

Ethnography of Covid on Exercise Behavior

Presenters: Emily Field, Jordan, Albanese, Marina Delvecchio, Taylor Bushey

Faculty Sponsor: Dr. Austin Busch

Our group decided to focus on the study of the ways in which COVID regulations have altered or not altered our culture here at Brockport, specifically in that of exercise behaviors. We then related the social behaviors to the novel *Age of Innocence* by Edith Wharton which we all read in our Introduction to Honors course last semester. Our personal experiences and understanding of culture allowed us to report on the behaviors as seen in our presentation.

College Life: Lonely but Not Alone

Presenters: Kylie Hickey, Kaylyn, Gushue, Jason Kiersbilck, Julianne Nowik

Faculty Sponsor: Dr. Austin Busch

With the rise of the COVID-19 virus in 2020, our safest option to continue learning and working was to find a way to meet with each other without being in-person. Online applications like Zoom, Microsoft Teams and Google Meet helped us in that endeavor, but it also brought to our attention how truly different online learning would be to in-person learning. Students have had to learn and adapt to several different types of online learning, such as hybrid, synchronous and asynchronous, depending on what their professors prefer. And while most students face these similar troubles, this presentation focuses on what college freshman have personally seen and dealt with while trying to navigate online school while experiencing college for the first time.

ASYNCHRONOUS POSTER / VERBAL PRESENTATIONS (not included in blocks)

A Historic Field Experience at the NYS Department of Health.

Presenter: Janay Clements

Area(s) of Study: Public Health & Health Education

Faculty Sponsor: Dr. Joshua Fegley

A brief overview of my hands on experience working as an intern during the COVID-19 pandemic.

Acute Exercise After Positive Covid-19 Infection: A Prevention Strategy for Acute Respiratory Distress Syndrome

Presenter: Ryan Murray

Area(s) of Study: Biology, Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Laurie Cook

The Covid-19 pandemic is an ongoing battle against a virus that has shown great strength against almost all treatment strategies. Treatment resistance is characterized by the development of serious conditions such as acute respiratory distress syndrome (ARDS), blood clots, and even cardiac arrhythmias. Currently, there is limited research on the prevention of these life-threatening symptoms. I hypothesize that an acute exercise program, for patients that have tested positive for Covid-19, will be successful in preventing the development of these symptoms. Acute exercise has the potential to systemically decrease the stress/inflammatory response found in severe Covid-19 cases. Specifically, acute exercise can

decrease the cortisol response to the virus that is commonly found in severe cases. High cortisol levels have been linked to increased mortality rates in patients infected with Covid-19. The benefits that exercise provides, even in the acute setting, can prevent the overloaded stress response from occurring and can provide a useful means of preventing death from Covid-19.

Alteration of the N-Terminus to Analyze ERH Function

Presenter: Kennedy Light

Area(s) of Study: Biology, Honors College

Faculty Sponsor: Dr. Stuart Tsubota

The enhancer of rudimentary gene, *e(r)*, is the gene that encodes the Enhancer of Rudimentary Homolog protein (ERH). The amino acid structure of this protein, especially the first five amino acids which make up the N-terminus and the beginning of the first β -strand in the β -sheet of the protein's secondary structure, have been found to be highly conserved among a wide variety of organisms, including vertebrates, insects, and protists. This suggests that these amino acids may play a key role in the activity of ERH, and that ERH may have a conserved function across organisms. Mutations in amino acids 2 through 5 were constructed and the mutant *e(r)* alleles were inserted into the third chromosome of *Drosophila melanogaster*. The activity of the resulting mutant ERH proteins was assessed by their ability to rescue two mutant phenotypes of *e(r)* deletions: low viability of the single mutant and the synthetic lethality as a double mutant with a low-activity Notch mutation. Phenotypic observations of eye color show whether any of the mutations give rise to wild-type ratios of females versus males. The results indicate that the N-terminus of ERH is indeed necessary for its proper function, and that this function may be evolutionarily conserved.

An Analysis of Fictional Protagonists in Existential Literature

Presenter: Dante Vattimo

Area(s) of Study: Honors College, Philosophy

Faculty Sponsor: Dr. Gordon Barnes

Some of the authors who are now most commonly associated with early Existentialism had died before the term was coined in the mid-twentieth century. This research is an attempt to determine how these writers would define the term if they had been able to hear the term, and knew that it was associated with their works. There is no way of knowing the answer with full certainty, thus a Jeffersonian approach was taken toward some of their major works. By this, I mean a close, detailed analysis of the main characters in these writers' fictional works, similar to how Thomas Jefferson cut out the fat from the New Testament to determine the views and teachings of Jesus Christ in their purest form. The results of this research imply that foundational existentialism is the belief that a high quality-of-life comes from an embrace of self-ownership and development of the individual.

An Investigation Into the Control of European Dewberry (*Rubus caesius*) in the Finger Lakes Region of New York.

Presenter: Alexis Reitler

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Kathryn Amatangelo

Invasive species are a significant component of anthropogenic global environmental change, as they disrupt plant communities and impact ecosystem processes. *Rubus caesius* (European Dewberry) is an invasive plant in western New York known to displace native vegetation, reduce streambank stabilization, and alter soil nutrients. There is no published literature on the best practices for the control of *R. caesius*. I evaluated the effectiveness of mechanical, chemical control, and combined treatments at the Ganondagan State Historic site in Victor, NY. With a randomized block design, I administered treatments to plots in five populations of *R. caesius*. I estimated the percent cover of each species in ten quadrats in each plot before and after treatment. Both treatments decreased the percent cover of *R. caesius*. *Rubus caesius* grew back at lower densities in the combined mechanical and herbicide treatment plots. These results will provide land owners with an effective treatment option to prevent the spread of *R. caesius*.

Analyzing Communications on Twitter after a Year into the COVID-19 Pandemic

Presenter: Matthew Morgan

Area(s) of Study: Computing Sciences

Faculty Sponsor: Dr. Adita Kulkarni

Social media is a crucial channel for sharing news and information in the modern media environment. During the COVID-19 pandemic, people largely used social media, in particular Twitter as a medium to express their struggles and opinions.

Understanding the socioeconomic state by analyzing tweets will help in better planning and preventing socioeconomic distress during future epidemics. In this work, I collected tweets all over the world using the Twitter API from December 20, 2020 to January 16, 2021. I kept track of trending hashtags and keywords related to COVID-19 and collected tweets containing those hashtags and keywords daily. I grouped the tweets into three categories: "General COVID-19," "Vaccine," and "New Strain." Tweets containing hashtags like #COVID19, #covid, #corona, #coronavirus were classified into the "General COVID-19" group, #Covid19Vaccine, #CovidVaccine, #ThisIsOurShot, #vaccination, #AntiVaccine, #NoVaccineForMe were classified into the "Vaccine" group, and #mutation, #CoronavirusStrain, #newstrain were classified into the "New Strain" group. The goal of this on-going work is to perform lexical category, word collocation, psycholinguistic and sentiment analysis of the collected tweets and compare the results with research published during the early days of the pandemic in order to understand its long lasting effects.

Answer Changing Behavior

Presenters: Chanya Earle, Lauren, Soda, Mohit Mehta, Sharelix Rivera

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Amanda Lipko-Speed

The current experiment examines the potential reactive effects of confidence judgments on college students' test-taking behaviors. Specifically, we are investigating whether making a confidence judgment influences students' decisions to change their answers for test questions. Participants are randomly assigned to a condition based on two variables: presence of a study guide and presence of confidence judgments. There are four conditions in total. All participants complete a 20-item test composed of questions from an introductory psychology chapter focused on research methods. Half of the participants receive a study guide which they are asked to study for 15 minutes. Half of the participants are asked to rate their confidence in their chosen answers. After completion of the test, participants are told the number of questions they answered incorrectly and they are instructed to change at least one of these answers. They provide confidence ratings for each changed answer. We hypothesize that students who make confidence judgments will make more answer changes. Data collection is ongoing.

Assessing The Effectiveness Of Palliative Care Interventions For Advanced Critically Ill Patients At The End Of Life

Presenter: Deborah A. K. Lavaud

Area(s) of Study: Nursing

Faculty Sponsor: Dr. Susan Lowey

Palliative care (PC) is a specialized form of medical care that is an integral component in minimizing the suffering of severely ill patients in intensive care units (ICUs). Many large hospital systems around the world have implemented the use of palliative care programs in clinical settings, aside from the ICU, for the same purpose. By relieving the suffering of patients, palliative care optimizes the quality of life of patients and their families. Recently, there has been a growing imperative to improve provisions of palliative care in the ICU for patients approaching or at the end-of-life (EOL). For these patients, curative treatments are considered futile, making care requirements increasingly focused on providing comfort to families and patients facing distressful symptoms associated with life-limiting illnesses. The specific aim of the proposed literature review was to examine current palliative interventions used in treating care deficiencies in critically ill adult patients in the ICU nearing or at the EOL. The overall goal was to understand the key areas involved in EOL care management in the ICU setting and identify PC strategies that can improve patient and family experiences during the dying process. For this review, a sample of 24 peer-reviewed research articles were collected from databases, including CINAHL, PubMed, Google Scholar, and Science Direct. Interventions assisting in end-of-life care management of ICU adult patients focused on improving identification of goals of care, withdrawal process of curative medical treatments, communication, and integration of religion and spirituality in patient care. These interventions can assist healthcare professionals in clinical practice to ensure that all critically ill patients and their families have access to care able to meet their needs at EOL successfully.

Attitudes Towards Unwanted Sexual Experience

Presenter: Cassandra Jannsen

Area(s) of Study: Honors College, Psychology

Faculty Sponsor: Dr. Celia Ching-Yee Wong

Undergraduate, female students are at a higher risk for unwanted sexual experiences. In 2014 White House Task Force to Protect Students from Sexual Assault estimated that 1 in 5 women on college campuses have experienced sexual assault while in college (Muehlenhard et al., 2017). Prior research on stigma has focused on other identities such as members of the LGBTQ+ community, those living with HIV/AIDS and those with mental health challenges. While the adverse health

outcomes associated with sexual assault are similar to those other stigmatized, concealable identities there has not been any research specifically focused on how stigma impacts sexual assault survivors. Minimal research has been conducted regarding their willingness to seek help after their experience. The present study aims to examine how self-stigma, perceived stigma, and attitudes towards unwanted sexual experiences impacts help-seeking behaviors in hypothetical scenarios. It also examines whether help-seeking behavior in hypothetical scenarios of sexual assault vary based on the source and gender of support. To answer these questions, 131 self-identified females enrolled in Principles of Psychology at SUNY Brockport completed an online survey via Qualtrics. Existing measures of perceived stigma and self-stigma of individuals with concealable identities were adapted for sexual assault.

Autonomous Raspberry Pi Based Wetlands Sensor

Presenters: Brandon Parks

Area(s) of Study: Physics

Faculty Sponsor: Dr. Zachary Robinson

Data loggers used to conduct field research by SUNY Brockports Environmental Science Department are costly, and limited in their use. Thus, we were asked to create one that was more versatile and cost effective. Using a Raspberry Pi and Arduino, a solar panel, and a battery, we were able to create an autonomous long-term data logger that could run continuously with minimal interaction required. When placed in the field, the prototype system collected data for months at a time. It was only when the surrounded foliage blocked out the sun that the battery ran out, and intervention was required. Three soil oxygen and temperature sensors were attached to the logger, as well as three soil moisture sensors. Our system could interpret and record the digital input of the oxygen sensors, as well as the analog input from the moisture sensors.

Behavioral Training of a Goat (*Capra Hircus*) to Consume Non-native, Invasive Weed Species

Presenter: Lauren Teti

Area(s) of Study: Environmental Science & Ecology, Psychology

Faculty Sponsor: Dr. Marcie Desrochers

This study evaluates use of operant conditioning procedures to increase a goats consumption of non-native invasive weed species (IWS). A multielement research design was used to compare training and control conditions. Training involved using a pointer to move the goat to an IWS and bites of IWS were immediately reinforced with a clicker noise and a treat. The results showed that the goat consumed more IWS in the training condition than control condition.

Body Image in Division 3 Athletics

Presenter: Sarah Tingley

Area(s) of Study: Sociology

Faculty Sponsor: Dr. Kyle Green

This project examines body image within female athletics at the NCAA Division 3 level. Body image is a significant issue within female athletics, and has started to receive more attention in recent years. Much of the existing literature and media coverage focuses on elite level athletes. Therefore, little is known about body image outside of high level athletics. In addition, existing literature fails to acknowledge the wide range of experiences that female athletes have based on the type of sport they participate in. Different sports may offer different experiences due to different physical expectations and requirements. This project seeks to add to existing literature by analyzing how Division 3 female athletes perceive their bodies, depending on the type of sport they participate in. 20 female athletes and coaches of female teams were interviewed for this project. The participants discussed their opinions and personal experiences regarding body image within the sport they participate in. Several themes and trends emerged from this data collection, indicating differences between the Division 3 level and higher levels, as well as differences between sports.

Bridgerton Women and Historical Accuracy

Presenter: Jules Lombardi

Area(s) of Study: Theatre & Music Studies

Faculty Sponsor: Gail Argetsinger

I will talk about the women's costumes in Bridgerton and how the costumes are historically accurate.

Bullying in Physical Education of Children and Youth with Visual Impairments: A Systematic Review

Presenter: Lindsay Ball

Area(s) of Study: Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Lauren Lieberman

Introduction:Children with visual impairments experience a higher rate of bullying than their sighted peers. The purpose of this study was to conduct a systematic review on bullying research in physical education with youth with visual impairments.**Methodology:**This systematic review proposed inclusion and exclusion criteria to utilize studies that only provided results of bullying in physical education for school age children with visual impairments. Any article that did not include children with visual impairments or blindness, physical education or clear bullying was eliminated.**Results:**All articles included in this review contained all six indicators of quality research. Results revealed that the participants in these 14 studies, 86% experienced social/relational bullying, 64% experienced verbal bullying, and 21% experienced physical bullying. Same age peers were most often the perpetrators (93%).Additionally, 50% of the bullying came from physical educators, 7% from the paraeducators, and 7% had a student with visual impairment generating the bullying.**Conclusions:**Educating teachers and paraeducators about proper modifications to class structure, assessment practices, and variations to sports and physical activity may be one way to combat some of the bullying. Lastly, teaching self-advocacy to children with visual impairments may minimize bullying and help children stand up for themselves.

Caching and Routing in Information-Centric Networks

Presenter: Dr. Adita Kulkarni

Area(s) of Study: Computing Sciences

Faculty Sponsor: Dr. Adita Kulkarni

Current Internet is mostly used for content access and delivery where users are mainly interested in the actual content and not the source location of content. Information-centric networks (ICN) is a future Internet architecture which transforms the present host-centric Internet to be content-centric by treating content as a first-class citizen. Caching content at storage-enabled routers is a fundamental component of ICN. In-network caching helps to improve network performance by delivering content from routers closer to the user and not from the origin servers. This talk provides an overview of the state-of-the-art caching and routing strategies in ICN, key factors affecting performance of these strategies, and the challenges and open research questions.

CaII Absorption in Quasar Spectra

Presenter: Stella Van Ness

Area(s) of Study: Physics

Faculty Sponsor: Dr. Eric Monier

Quasars, the most luminous objects in the Universe, are powered by accretion onto supermassive black holes. Since they can be seen to great distances, they can be used as beacons to study the intervening gas along the line of sight. Eleven quasar fields were identified with potential absorption due to singly ionized calcium (CaII), which can be used to identify galaxies in the low-redshift Universe. Imaging and higher-resolution multi-object spectroscopy of the quasars and galaxies in these fields were obtained from the Gemini North 8-m telescope. After data reduction and spectral extraction, we are using the higher resolution data to confirm that the CaII absorption in the quasar spectra is real, and to measure the strength of CaII absorption in these regions. The Gemini imaging and spectroscopy of the galaxies will then be used to identify the galaxies at the absorption redshifts.

Celtic Music Flute Recital

Presenter: Tegan Stoddart

Area(s) of Study: Music

Faculty Sponsor: Scott Horsington

The Celts were a group of tribes who were living in Europe during and after the Late Bronze Age. Part of this group includes the people of Scotland and Ireland. Celtic music is an ongoing genre with many contemporary bands not only playing traditional music, but also contemporary pieces that fit the style. This performance will be a flute recital consisting of multiple pieces of this genre.

Changing Tides: The Importance of the Navy in the American Civil War

Presenter: Jenna Croswell

Area(s) of Study: History, Honors College

Faculty Sponsor: Dr. John Daly

This paper provides much deserved attention and recognition to the efforts of the Navy during the American Civil War. This is a topic that does not get enough study for how influential it was. The Navy proved instrumental both in the outcome of the War itself and in the implementation of a new form of modern naval warfare. Through the study of records

on topics such as the blockade, river warfare, ironclads, submarines and torpedos, this paper proves that the Navy was an important aspect of the American Civil War that deserves far more credit than it is given.

Childhood Obesity: Treatment Plan for Elementary Aged Children

Presenter: Paige Thurnherr

Area(s) of Study: Honors College, Nursing

Faculty Sponsor: Dr. Danielle Stratton

Childhood obesity (ages 2-19) is at epidemic proportions in the United States (US). The current prevalence of childhood obesity is 18.5%, which is about 13.7 million children. A plan for the initiation of pediatric obesity treatment is essential. This will result in correctly diagnosing and initiating a wholistic approach to obesity treatment. The longer an individual has had obesity, the more likely they are to develop a comorbid condition, especially if onset is in childhood. Therefore, action at Elementary age (5-10 years old) is crucial. The goal of this project is to create evidence-based protocol (EBP) for the treatment of childhood obesity and comprise a well-rounded, wholistic approach to the treatment of childhood obesity. The following paper includes a developed EBP treatment plan for obese pediatric patients, educates on the many factors that contribute to the obesity epidemic and describes how patient monitoring and follow-up care will be carried out. The information found in the paper is from multiple research articles that studied childhood obesity. The use of this plan to effectively initiate pediatric obesity treatment will positively impact the health of the children in the US. Early identification and prevention of childhood obesity will create healthy habits in our youth, which they will take into adulthood, preventing future co-morbid conditions.

Children's Assessment of Participation and Enjoyment (CAPE): A Delphi Study

Presenter: Katriana Belknap

Area(s) of Study: Honors College, Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Melanie Perreault

Youth with visual impairments participate in less physical activity than typically developed youth, which can decrease their life quality. Therefore, it is important to have valid and reliable measures for assessing participation in physical activities for individuals with visual impairments. One such measure is the Childrens Assessment of Participation and Enjoyment (CAPE). The CAPE consists of 55 items representing different activities. Each item includes an image but no standardized descriptions are provided. The purpose of this delphi study was to obtain consensus on image descriptions for each item. Two researchers developed descriptions that were distributed to an expert panel made up of 11 professionals and 16 parent/child with visual impairment dyads. Each member assessed each description on a 4 likert scale. For the first round, 11 professionals and 10 parent/child dyads responded. The comments from the panel were used to edit any of the descriptions that had a mean rating less than 3.25. These updated descriptions were sent to the same participants to be rated again. A few minor changes were made to some statements. Overall, this study was needed in order to create an accessible version of the CAPE for youth with visual impairments.

Comparing Phenotypic Plasticity of Invasive Mile-a-Minute (*Persicaria perfoliata*) Vine Under Varying Environmental Conditions.

Presenter: Erica Mackey

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Kathryn Amatangelo

Invasive species are recognized as a major threat to natural ecosystems and a leading threat to biodiversity. Invasive species often exhibit greater phenotypic plasticity than native species and these traits allow invasive species to be able to adapt to different environmental conditions and therefore be more successful at colonizing a non-native area. It is important to understand the adaptations of invasive plants, especially as climate change worsens, because climate can drive natural selection and geographic variation in plant species. I performed a common garden experiment to analyze the phenology and plasticity of Mile-a-Minute (*Persicaria perfoliata*) seeds from distinct populations under varying environmental conditions. Environmental treatments consisted of wet or dry soil moisture regimes, shade or sun light treatments, and warm (65°F and 80°F) temperature-controlled rooms. Plants were evaluated for growth, phenology, specific leaf area, and biomass. In general, environmental conditions affected plant characteristics more than seed source. In both temperatures, plants in the sun and wet treatments flowered and fruited earlier than the other treatments. This research demonstrates that environmental conditions can have significant impacts on invasive plant growth.

Cross-Cultural Comparison of Delay Discounting in American and Japanese College Students

Presenters: Cara Bakalik, Lauren, Soda, Lauren Teti, Heather Graupman

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Lori-Ann Forzano

Impulsivity is fundamental in many unhealthy behaviors and is also featured in several psychological disorder diagnoses including, Attention-Deficit/Hyperactivity Disorder and Substance Abuse. Delay discounting is the process by which one diminishes or devalues delayed rewards, and this process underlies some forms of impulsivity. Because delay discounting plays a role in maladaptive behaviors, understanding additional factors related to it, is essential. Previous research has examined the role of culture in relationship to delay discounting. Specifically, it has been found, among adults, Americans are more likely than Japanese to discount future reinforcers. However, because other studies have found age differences in delay discounting, the current study, compared delay discounting across cultures in emerging adults, i.e., college students, who completed the Delay Discounting Questionnaire (Soroma et al., 2019). Analysis of logit of 234 American ($M = -1.296, SD = 0.74$) and 91 Japanese ($M = -1.325, SD = 0.76$) participants revealed no significant difference in delay discounting, $t(323) = 0.3199, p = .7492$. This study suggests other factors that may underlie cross-cultural comparisons in delay discounting.

Cultivation Theory Within Disney Princess Films

Presenter: Kesa Janes

Area(s) of Study: Communication, Film Studies, Journalism, Broadcasting and Public Relations, Sociology

Faculty Sponsor: Dr. Alexander Moe

This thesis explores depictions of Disney princesses. Guided by theoretically driven methodology in thematic analysis, the study compares and contrasts between physical and character traits, as well as the work they are seen performing, and the portrayal of romantic relationships among characters, if any. Results indicate that most of the films contain potentially harmful gender stereotyping and unrealistic standards regarding beauty and love interests. The results further demonstrate that cultivation effects can be applied to those who view Disney Princess films. Common messages that are repeated in the media include the enforcement of gender roles and stereotypes, a pressure to maintain physical appearance based on gender, and an emphasis on the importance of romance. Informed by George Gerbner's coined cultivation theory, a theoretical framework used extensively in communications and sociological research, suggests that people who are exposed to media over long periods of time will begin to perceive what they see through their media consumption as reality. As a result, this can shape their personal beliefs, attitudes, and behaviors.

Dance Lineage: The Formation of Movement Copyright and Individual Artistic Identities

Presenter: Stephanie Kotsch

Area(s) of Study: Dance

Faculty Sponsor: Stevie Oakes

Copyright in the dance world is often reserved for certain dance styles and companies of the larger scale. I am unpacking the many components of the 1976 Copyright Law and the other possible ways to illustrate movement background when making choreographic work. I accomplish this with a literature review of the Copyright law and how companies have used official means to protect their work. I also delve into different approaches of how artists can conserve their work, including movement citation and the lineage of dance forms. Using verbal cues in the class setting is an example of indicating the dance history and citing the original artist. The communication from teacher/choreographer to student/dancer keeps long-standing dance styles and movements alive between generations of artists. As the creative component of the research, I have choreographed a solo work that will be presented in the form of an in-progress video along with my written work. I have discovered more about my own artistic identity and how I realize the roots of my choreographic tendencies.

Demographics of the Invasive Round Goby (*Neogobius melanostomus*) in Sandy Creek, New York

Presenter: Cyalea Rivera

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Matthew Altenritter

Round gobies are a small invasive fish that were first documented in the Great Lakes in 1990. Since then, they have become widely dispersed and are now moving inland using tributary streams and rivers connected to the Great Lakes. We examined the distribution and demographics of round gobies in Sandy Creek flowing through Hamlin, NY. Gobies were caught as far upstream as 10 miles from Lake Ontario and varied in length from 32mm - 135mm. Catch per unit effort (CPUE), a relative metric of abundance was as high as 1.67 fish per minute of electroshocking (range = 0.3 - 1.67 fish/minute). A discernable pattern in CPUE with progression upstream from Lake Ontario was not observed. We are currently ageing the round gobies using otoliths (ear stones) to evaluate whether any patterns exist between age structure and distance from Lake Ontario. We expect that this information will be useful to fisheries managers interested in understanding the characteristics of invading round gobies that may be the first to arrive in habitats within or connected to Great Lakes tributaries.

Designing and building a set of Helmholtz coils

Presenter: Lee Perry

Area(s) of Study: Physics

Faculty Sponsor: Dr. Kristen Repa

Repeatability is at the heart of any reliable experiment; as such, when studying magnetism, it's vital to have a uniform magnetic field. Helmholtz coils are a device that produces nearly uniform magnetic fields. In this project, we aim to build a tabletop Helmholtz coil apparatus for use in future research. We are building the set of Helmholtz coils by wrapping two hoops, made of a non-magnetic material, with copper wire; the radius of the hoops will be equal to the distance separating them. After construction, we will use a Gaussmeter to test the uniformity of the magnetic field between the hoops and we will test the magnetic field strength along the axial distance to show the drop off of uniformity and loss of magnetic field strength over the area of the coil. We will compare the experimental magnetic field strengths to the theoretical calculations of the magnetic field and author an operation manual for future use. This experiment highlights how valuable a skill it is to be able to develop an idea and see it come to fruition.

Dissenting Voices Volume 10

Presenter: Dr. Barbara LeSavoy

Area(s) of Study: Women & Gender Studies

Faculty Sponsor: Dr. Barbara LeSavoy

This presentation features students speaking on their senior capstone projects developed in Senior Seminar in Women and Gender Studies as contributions to the WMS 421 E-journal, 'Dissenting Voices,' Volume 10. Presenters and Topics Follow: Grace Cunningham: Disability Representations in Elementary and Secondary Curriculum; Nax Gillett: Women's Mental Health in Correctional Facilities: What is America Doing About It?; Hawa Ibrahim: Varied Experiences of Fat Bodies; Naomi Levitsky: Substance Abuse Prevalence Among LGBTQIA+ Identities; Myah Martinez: Queer Representations in Popular Media: Impact on Coming Out; Catherine Muir: STOP!: The Sexualization of Women and Girls; Erica Puleo: Is Our Medical Community Failing Women?; PTSD Among US Women; Zahraa Salem: Intersecting Identities: Middle Eastern Women in Dual Cultures

Does a High Lipid Diet Cause Thiamine Deficiency in Lake Trout?

Presenter: Aaron Heisey

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Jacques Rinchar

Thiamine (vitamin B1) is an essential molecule for cellular metabolic function, a cofactor for enzymatic reactions, and acts as an antioxidant mediating oxidative stress. In salmonine species, thiamine deficiency complex (TDC) results from an inability to retain adequate amounts of thiamine for reproduction leading to a recruitment bottleneck. In the Great Lakes, thiamine deficiency in lake trout is linked to the consumption of alewife, which has twice the lipid content when compared to other prey species. Highly unsaturated fatty acids (EPA, DHA) are susceptible to oxidative stress due to multiple non-polar double bonds thus imposing an additional demand on thiamine to act as an antioxidant. In this study, juvenile lake trout were fed six diets, with three lipid levels and presence/absence of thiamine over a six-week period. An additional two-week positive control period sought to determine the role of thiamine under an oxidative stress condition in comparison to a high lipid diet. Overall, fish growth reflected dietary lipid level. While fatty acid signatures showed differences between treatments, there was no significant interaction between thiamine and fatty acids. Biomarkers of oxidative stress will evaluate the role of a high lipid diet on thiamine deficiency.

Does Mechanical Cutting Prevent the Spread of the Invasive Slender False Brome (*Brachypodium sylvaticum*)?

Presenter: Luka Koziol

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Andie Graham

Brachypodium sylvaticum (slender false brome) is an invasive grass native to Eurasia that has spread throughout New York State. Typically, chemical treatment is used to remove this perennial grass, but we wanted to test the efficacy of mechanical cutting to reduce spread. In June 2020, we randomly surveyed 100 *B. sylvaticum* plants in Genesee County, NY. We measured the height of all plants and then 50 of those plants were treated by cutting with a string line trimmer. The remaining 50 plants were left untreated. We continued weekly measurements for six weeks post-treatment. We used a Mann-Whitney U-Test to compare the average plant height between the treated and untreated plants and a Chi-squared

Test for Association to compare seed head formation between the two treatments. We also monitored and calculated the average change in growth of the treated plants. We found significant differences in height ($p < 0.05$) and seed head formation between the treatment groups ($p < 0.05$). The average plant height decreased from 39.88 ± 10.06 cm pre-treatment to 7.68 ± 6.46 cm post-treatment. Although some regrowth of treated plants was observed, it is important to note that treated plants did not form seeds, suggesting the properly timed mechanical cutting prevents seed formation, thus minimizing spread.

Evaluating the Performance of Caching Strategies in Diverse Information-centric Network Settings

Presenter: Rhonda-Lee Forbes

Area(s) of Study: Computing Sciences

Faculty Sponsor: Dr. Adita Kulkarni

Information-centric networks (ICN) is a future Internet architecture that rearchitects the current host-centric Internet to a content-centric one. Caching content within the intermediate nodes is one of the salient features of ICN. This in-network caching allows the content requests to be served from the intermediate nodes rather than the origin servers, thus reducing the content access time and the load on servers. Existing literature proposes many caching strategies for ICN and Leave Copy Everywhere (LCE), Leave Copy Down (LCD), Cache Less for More (CL4M) and ProbCache are the most popular ones. Performance of caching strategies vary significantly according to the behavior of the underlying network nodes. We evaluate the performance of the aforementioned caching strategies in diverse network settings and analyze which strategy is most suitable in specific scenarios. In this work, we consider static networks, synthetic mobile networks, and real-world pedestrian and vehicular mobile networks. Specifically, we consider static academic networks (WIDE, GEANT, GARR), two synthetic mobility models grid and random waypoint, a pedestrian network designed using Stockholm pedestrian trace, and vehicular networks designed using Rome taxicab trace and Seattle bus trace. We conduct experiments in Icarus, a simulator extensively used for ICN research, using YouTube access trace, a real-world request stream trace.

Experimental Evaluation of Use of Operant Conditioning to Increase Consumption of Multiflora Rose (*Rosa Multiflora*) by a Goat (*Capra hircus*)

Presenters: Molly French, Dr. Marci, Desrochers, Dr. Lori-Ann Forzano, Dr. Kathryn Amatangelo

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Marcie Desrochers

Operant conditioning (OC) involves modifying behavior by changing its consequences (Skinner, 1951). OC techniques have been applied with goats (Baldwin 1979). OC techniques were used to train a goat to consume nonnative invasive weed species (NIWS). A multielement research design was used, and a higher rate of NIWS consumption by the goat in the experimental compared to the control condition occurred. OC of goats' eating behavior may be an effective method to control invasive species.

Exploring Neuromarketing from a Business and Consumer Perspective

Presenter: Stevie Rudak

Area(s) of Study: Business, Psychology

Faculty Sponsor: Dr. Stacy Birch

An unfamiliar primary market research technique, called Neuromarketing, surfaces and is on the rise to being heavily used by corporations that obtain the budget to indulge in this expensive and what some call, an "intrusive" practice. Neuromarketing is the lens to what reactions first occur, inside the brain, when consumers are presented with specific marketing stimuli with the use of EEG and fMRI Scanning equipment. Receiving valuable consumer information, using medical technology, is deconstructed through this literary review. In the beginning section, there's a focus on the reasoning behind big businesses choosing to utilize this kind of strategy when conducting marketing research. Then, examples of several companies that use Neuromarketing will be presented. Lastly, the ethical and economical concerns that Neuromarketers face are laid out by showing that technology is consistently improving. This continuous improvement creates a fearful response in consumers, who feel like they're being taken advantage of by Neuromarketers.

Exploring the Effects of Invasive Slender False-Brome (*Brachypodium sylvaticum*) on Forest Ecosystem Function

Presenter: Andrew Leonardi

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Kathryn Amatangelo

Slender false-brome (*Brachypodium sylvaticum*) is a perennial bunchgrass native to Eurasia and North Africa that is invasive in North America. The change in leaf litter quantity and quality in forests lead us to believe that changes in decomposition of leaf litter, an important ecosystem process, would be significantly altered. In two mesic forests in western New York we designed and executed a common garden litterbag experiment that compared *B. sylvaticum* invaded and uninvaded paired plots. Plot pairs had similar canopy type, canopy cover, and were within five meters of one another. One of the properties of the forests that we examined was the decomposition rate of common species and *B. sylvaticum* and if/how the presence of *B. sylvaticum* changed how quickly they decomposed. Initial results indicate the decomposition rates of leaves were significantly affected by site, plot type, initial leaf nitrogen, and there was an interaction between plot type and initial leaf nitrogen. This means that the *B. sylvaticum* may impact sites differently, the change in leaf litter quality is important for predicting decomposition rate, and the presence of *B. sylvaticum* has an impact on ecosystem function.

Factoring Race in the Criminal Justice System

Presenter: Folake Olowu

Area(s) of Study: Criminal Justice, Honors College, Psychology

Faculty Sponsor: Dr. Jennifer Ratcliff

Previous research indicates that race is a crucial factor when it comes to sentencing decisions in the criminal justice system. For example, research has demonstrated that a young black male is more likely to be sentenced to prison, receive longer sentences, and receive little to no advice from the sentencing board relative to white male offenders. This means that when it comes to the fair treatment of the law people of color tend to be discriminated against. The present study sought to replicate these prior findings by examining the relationship between a suspects race and sentencing decisions. The study consisted of twenty-five participants from a psychology-based research methods class at SUNY Brockport. All participants read a case summary of the same crime and then they were randomly assigned to one of two different conditions in which they were either exposed to either a Black or a White perpetrator who was accused of the crime. After reading the case description of the crime committed, participants assigned a recommended sentence for the perpetrator. While the primary hypothesis was not supported, limitations, implications, and future directions will be discussed

Factors Influencing the Spread of Slender False Brome (*Brachypodium sylvaticum*)

Presenter: Owen Bean

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Andie Graham

Brachypodium sylvaticum is an invasive grass that is often found growing near recreational trails, parks, and areas with heavy foot traffic. Pratt Falls County Park in Manlius, NY has a moderate infestation of *B. sylvaticum*, which was first detected in 2019. In 2020, we designed a study to determine if park trails are influencing its spread. We also looked for potential relationships between *B. sylvaticum* and soil moisture, soil pH, and canopy cover. This study was conducted by sampling 60-1m² plots at Pratt Falls: 30 plots directly adjacent to trails and 30 plots located 25 meters from trails. At each plot, we estimated percent cover of *B. sylvaticum* and collected canopy cover and soils data. We used a Mann-Whitney U-Test to compare *B. sylvaticum* cover between on-trail and off-trail locations and a Multiple Linear Regression to determine if *B. sylvaticum* cover was influenced by canopy or soils. We found no significant relationship between *B. sylvaticum* and canopy or soils ($R^2=0.002$, $p = 0.98$). However, we found a significant difference in *B. sylvaticum* percent cover between on-trail and off-trail sites ($p < 0.05$, $W=1230$), suggesting that foot traffic is likely a contributor to *B. sylvaticum* spread at Pratt Falls.

Frequency Factors in Presidential Executive Orders

Presenter: Tyler Wood

Area(s) of Study: Political Science & International Studies

Faculty Sponsor: Dr. Steven Jurek

American Presidents utilize an array of tools which each have a varying level of political expediency. One such tool which can be seen as a way to 'get things done quickly' is the topic of this research: Executive Orders. Previous in-depth statistical scholarship in this field concluded with the year 2000, therefore this analysis seeks to bring up to date that which was done before by covering the period of 2000-2020. The current research model seeks to analyze the varying factors which can lead to an increased or decreased rate of Executive Order usage. Such study is necessary to further comprehend the nature of the past in order to make more qualified predictions about the future. The general conclusions drawn from the current dataset include; Orders have become much less common now than in the previously studied period, are more frequently issued in a President's first year in office as well as in their last month, are more common during an election year in which the incumbent is running for reelection, and more frequent when a President is more popular with the public. In addition to these conclusions numerous other details and less definitive findings are discussed.

Gene Expression in Adipocytes

Presenter: Daisha Gonzalez

Area(s) of Study: Biology

Faculty Sponsor: Dr. Laurie Cook

Melanin-concentrating hormone (MCH) is associated with feeding behavior and a high concentration of MCH is found in the hypothalamus, a center for regulating feeding behavior and metabolism. Our lab is interested in determining gene expression changes in early-stage fat cells versus fully differentiated fat cells. My experimental aim was to study four genes associated with lipid metabolism: *atgl*, *lipe*, *plin1* and *plin2*. Real-time quantitative PCR (qPCR) was employed to measure mRNA expression levels in cell samples and genes coding for RNA polymerase II and PPAR-gamma were used as reference controls for amplification. I have successfully achieved amplification of control genes with strong replicate data in quadruplicate. I plan to continue this work in the Fall semester by measuring expression of the four experimental genes.

Growth and Seed Formation of *Brachypodium sylvaticum* in Genesee County, NY.

Presenter: Zachary Morin

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Andie Graham

Slender false brome (*Brachypodium sylvaticum*) is an invasive grass that spreads rapidly by seed. However, information is lacking on *B. sylvaticum* seed formation and growth requirements. The goal of this study was to understand timing of seed formation, which has major implications for treatment. We also wanted to determine what factors influence *B. sylvaticum* growth. In 2020, we randomly selected 50 individual *B. sylvaticum* plants throughout Genesee County, New York and monitored the plants weekly. Each week, we categorized seed formation based on visual observations, and we measured plant height. We also collected canopy cover, soil moisture, and soil pH at each plant to determine if these factors influence growth. A multiple linear regression showed no relationships to soil moisture or soil pH; however, we found a significant relationship between canopy cover and *B. sylvaticum* height ($p=0.00038$, $R^2=0.28$), suggesting that *B. sylvaticum* may grow taller in high light conditions. Seed formation data shows that seeds did not begin to form until early July; by July 24, seeds had developed the barbed awns that facilitate their spread. The results of this study emphasize the importance of understanding *B. sylvaticum* development and can be used by land managers to develop treatment plans.

Hard X-ray Emission from the TeV Radio Galaxy - PKS 0625-354

Presenter: Anthony Leo

Area(s) of Study: Physics

Faculty Sponsor: Dr. Ka-Wah Wong

Most TeV Active Galactic Nuclei (AGNs) are blazars, which are supermassive blackhole systems with their jets aligned toward us. Their very high energy TeV emission can be explained by the Doppler boosting of the source for observers looking into the jet cone. The discovery of TeV emission from radio galaxies with misaligned jets without significant Doppler boosting was surprising. New insights into the fundamental high energy emission mechanisms are needed to understand these systems. We present our X-ray study on one of the few TeV radio galaxies discovered, PKS 0625-354, using the NuSTAR space observatory. We characterize the hard X-ray emission above 10 keV and compare it with the Synchrotron Self-Compton model, which is the most popular model to explain the very high energy emission from TeV radio galaxies. We discuss implications of our results.

Healthcare Utilization Among Parents and College Students

Presenter: Rebecca Ruffino

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Caitlin Abar

Parents play a critical role in their child's health. As children, parents are responsible for coordinating any medical care needed. As adolescents and young adults, youth tend to mirror their parents' healthcare-related behaviors (Case & Paxton, 2002). The following study examines the links between parental involvement, parental modeling of healthcare behaviors, and student healthcare behaviors. Proper use of the primary care system can result in significant long-term health benefits for youth. This study was conducted using SUNY Brockport students in PSH 101, with participation open to all students currently enrolled to that class. Participants completed an online survey using Qualtrics, including measures on prescription drug use and knowledge and healthcare activities of themselves and their parents. They also answered questions on parental strictness and control. As of February 17, 2021, there are 182 completed surveys. In this group, it was found that 67% were female, 84% were White and 11% were Black; 62% were freshmen and 19% were sophomores, with an average age of 19.15 years. We expect that college students who have parents that model appropriate primary care and prescription activities will similarly engage in appropriate healthcare behaviors.

History of India from 1500's to 1800's and Garments

Presenter: Gloria Colon

Area(s) of Study: Business

Faculty Sponsor: Gail Argetsinger

In this presentation I talk about some of the important events that took place in India from 1500 to 1800. Then I go into some information about some historically important garments and jewelry.

How Intensity and Types of Psychopathy Determine Accuracy of Micro-Expression Detection and Differentiation

Presenter: Simone Graham

Area(s) of Study: Psychology

Faculty Sponsor: Dr. David Abwender

This study explores how levels and types of psychopathic personality traits influence ability to detect and differentiate negative versus positive micro-expressions of emotion. Between 200 and 300 undergraduate students ability to differentiate the different micro-expressions will be correlated with their scores on questionnaire measures of psychopathic traits. I will utilize a set of standardized micro-expression videos (videos of faces flashing a micro-expression in real time). The participants will watch 26 of these videos and report what emotion they believe the person was displaying in each video. Participants will also complete a collection of personality tests, surveys, and questionnaires to determine the level and type of psychopathic tendencies they possess, their empathic responsiveness, as well as assess accuracy in their answers.

Immunofluorescence Staining of Primary Cilia in Differentiating 3T3-L1 Pre-Adipocytes

Presenter: Autumn Beideck

Area(s) of Study: Biology, Chemistry & Biochemistry

Faculty Sponsor: Dr. Laurie Cook

Ciliopathies are diseases that result from defective primary cilia or absent cilia in neurons in the brain. Primary cilia are produced during cell differentiation, and the contribution of cilia to adipogenesis is as yet unknown. Neurons contain a hormone receptor for MCH in their primary cilia which are involved with triggering appetite. In the laboratory, we found that as adipocytes are developing, their primary cilia also contain the same receptors. The lab is interested in isolating the primary cilia that develop on adipocytes to use for upcoming tests. My experimental aim was to learn how to successfully culture these cells and observe primary cilia by immunofluorescence microscopy. ARL-13 and acetylated-tubulin are proteins that are only found in primary cilia. I used primary antibodies to these proteins and secondary immunofluorescent antibodies to label them in paraformaldehyde-fixed 3T3-L1 cells cultured to the ciliated stage, and present here in the captured images at 40X and 100X on a fluorescence Nikon microscope. The successful data supports published results and is encouraging for the feasibility of future ciliary isolation experiments.

Incarceration of Women with Mental Health Needs in the Netherlands as Compared to the United States: An Analysis of Trauma Responsiveness

Presenter: Shannon Lauinger

Area(s) of Study: Criminal Justice, Honors College, Social Work

Faculty Sponsor: Tricia Snyder

For my honors thesis, I am basing my topic on the lack of efficient mental health services within United States womens county jails. Addressing mental health concerns among incarcerated women is significant for the individuals overall health and the improvement of the criminal justice system as a whole. This thesis will include a comparative analysis between the United States and the Netherlands mental health services in womens jails, in order to explore where our country is lacking in regard to these services. Analyzing the current mental health services in both the United States and the Netherlands, and their responsiveness to trauma, will allow for a comparison between a rehabilitative approach and a punitive approach for mental health concerns. This comparison will be conducted through a literature review, with the goal to address the need for more social emotional services, support services, trauma informed services, and reentry services for women with mental health challenges in criminal justice facilities. Overall, by analyzing a country that has significantly more efficient mental health services within their facilities, I will conclude with services that the United States could implement to efficiently address mental health challenges for women who are incarcerated.

Insight of the Deepwater Sculpin Reproduction in Lake Ontario

Presenter: Jarrod Ludwig

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Jacques Rinchar

Little information is known about the reproduction of the deepwater sculpin (*Myoxocephalus thompsonii*), a species considered extirpated from Lake Ontario until the late 1990s and that made a resurgence since then. In this study, we examined their gonadal development, fecundity, and oocyte development during two consecutive falls (2018 and 2019). Our preliminary data indicated that gonadosomatic index reached 1.3 ± 0.7 and $7.9 \pm 6.2\%$ in males and females, respectively, with females at different stage of maturity. The data confirmed that this species is a multiple spawner. Absolute fecundity measured as the number of the largest oocytes present in the ovary averaged 723 ± 196 and 840 ± 268 eggs in 2018 ($n = 30$) and 2019 ($n = 22$), respectively. Relative batch fecundity ranged from 9 to 27 eggs/g of fish. The diameter of the largest oocytes averaged 1.84 ± 0.06 mm. These data bring new insight to the reproduction of deepwater sculpin in Lake Ontario.

Introduction to Islamic Banking and Financial Practices

Presenter: Umaina Jamal

Area(s) of Study: Accounting, Economics, & Finance, History, Honors College

Faculty Sponsor: Dr. Carl Davila

According to the data collected by Pew Research Centre, there are about 3.45 million Muslims in the United States that make up 1.1% of its population. And it is projected that Muslims will make up to 2.1% of U.S population by 2050. As the Muslim population grows in the United States of America, their religious practices are also becoming more common, and efforts are being made to accommodate them more. One practice that Islam promotes is prohibition of interest. This research paper attempts to elaborate on the modes of financing in Islam from a Sunni Muslim perspective. It is my intent to articulate the financing modes in a way that readers can learn about different solutions provided by Islam to overcome traditional banking system that incorporates interest. This work utilizes the book "Introduction to Islamic Finance" by Mufti Muhammad Taqi Usmani as the main source and also other scholarly articles to explain different aspects of Islamic financial practices. It attempts to discuss the main source of these financing methods which is Sharia. The main modes of Islamic financing discussed are Mudarabah, Musharakah, Murabahah, Diminishing Musharakah, Salam, Istisna, and Ijarah.

Invasive Grass, Slender False Brome (*Brachypodium sylvaticum*) and Its Relationship with Plant Communities in New York State

Presenter: Megan Aubertine

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Kathryn Amatangelo

Slender false brome (*Brachypodium sylvaticum*) is a perennial bunch grass native to Eurasia. It has invaded a variety of plant communities within New York State. We surveyed eleven plant communities throughout western and central New York: eight invaded and three uninvaded. Our objective was to investigate *B. sylvaticum*'s relationship with plant communities. We sampled multiple 1 m² quadrats at each site, in which we quantified ground-layer plant identity and percent cover, canopy cover, and soil moisture. To evaluate if there was a difference among study sites and between invaded and uninvaded quadrats within sites, we ran a series of non-metric multidimensional scaling (NMDS) ordinations. The NMDS evaluating site grouping showed that sites group by region. Within site ordinations showed separation of invaded and uninvaded quadrats suggesting community changes between areas with and without *B. sylvaticum*. To evaluate the relationship between *B. sylvaticum* cover and species richness, we ran correlations for each site. The correlations showed that there is a decrease in species richness with an increase in percent cover of *B. sylvaticum*. Our results suggest that *B. sylvaticum* may alter plant communities in New York.

Is Decreasing Social Media Usage More Effective with Improving Mental Health Than Exercise?

Presenter: Celine Martuscello

Area(s) of Study: Healthcare Studies

Faculty Sponsor: Dr. Afeez Hazzan

Background: Social media hasn't become popular until the early 2000s. Meanwhile mental health wasn't talked about a lot and was more taboo in society at that time. There are still so many stereotypes around mental health but there seems to be an increase nowadays in anxiety and depression and social media consumption could play a major part in this. I am looking to see if reducing social media improves mental health better than exercise. Methods: This is a literature review on people that suffer with depression/anxiety, is reducing the number of media hours being consumed more effective than

exercising? There is no question that consuming too much social media has an impact on mental health status but does reducing it work better than exercise? Discussion: For some people social media is the root cause of their anxiety or increases their depression with comparing themselves to others and lowering their own self esteem. It is damaging for personal relationships as it takes away physical connection and people lose important soft skills. This allows a mask for those to be able to comment anything on anyone's post. The anonymous component increases cyberbully harming others mental health.

Lolita Fashion

Presenter: Regina George

Area(s) of Study: Theatre & Music Studies

Faculty Sponsor: Gail Argetsinger

A quick overview on the alternative Japanese fashion style known as lolita. Learn about the history, types, and why lolita is considered both good and bad in different cultures. Take the time to understand why this 'kawaii' or cute fashion style is taking the world by storm.

M.Sc. Candidate in the Environmental Science and Ecology Department and Instructional Support Technician in the Biology Department. SUNY Brockport, Brockport, NY

Presenter: Dawn Newman

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Christopher Norment

Presentation Title: Effects of water chemistry on anti-chytrid bacterial species on northern leopard frog skin and its susceptibility to chytrid infection? Chytridiomycosis, caused by the pathogenic fungus *Batrachochytrium dendrobatidis* (Bd), has resulted in worldwide population declines in amphibian species. The question is; Why are some amphibian populations more susceptible to chytrid infection? The loss of anti-chytrid bacterial species on amphibian skin due to unfavorable water chemistry is one viable possibility. My research goal is to examine water chemistry differences between created oepotholes and existing water bodies in the Braddock Bay Wetland Restoration area, and determine if these differences affect the presence of anti-chytrid species (and thus resistance to chytrid infection) on the skin of northern leopard frogs. I am analyzing water samples using accepted procedures, and testing skin swab samples taken from leopard frogs in August 2019 and June 2020. Swab samples taken from frogs are screened for the presence of anti-chytrid bacteria using a challenge assay procedure, and tested for chytrid infection by PCR analysis. Initial findings indicate differences in the water chemistry between the created oepotholes and natural waterbodies, and the absence of anti-chytrid bacteria in many frog samples, but the determination of chytrid infection in the frog samples has not been completed to date; therefore, no final conclusions can be drawn at this time.

MCH-Mediated Effects on Circadian Rhythm Gene Expression in Developing Adipocyte

Presenter: Shane Walters

Area(s) of Study: Biology

Faculty Sponsor: Dr. Laurie Cook

Melanin-concentrating hormone (MCH) is a hormone known for stimulating appetite. Its effects are most studied in the brain, where it serves as a neurotransmitter, but our lab focuses on its influence during the differentiation process of 3T3-L1 pre-adipocytes. The differentiation of these cells takes ten days, over which MCH has been shown to mediate changes in gene expression. The data suggest that MCH influences the transcription of certain circadian rhythm genes, which may be a residual effect of its known role in REM sleep. This connection may help describe the relationship between sleeping, eating habits, and metabolic efficiency. We aimed to study the regulatory role MCH has specifically in the expression of Period1-3 genes which are key circadian rhythm genes. Preliminary data focused on MCH-mediated changes in per1-3 expression during early adipogenesis; this study focused on later developmental stages. Data suggest that if any changes are occurring at all, they are developmental and independent of MCH, or take place after Day 10. Current experiments are expanding focus to metabolic sensors like AMPK which may participate in MCH-mediated changes in the circadian rhythm in adipose tissues.

Mental Health Stigma in African and African American Communities

Presenter: Adeola Akinyemi

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Pilapa Esara Carroll

African and African American college students at SUNY Brockport face a variety of barriers in their access to mental health resources. This idea is consistent in the literature as research by Kawaii-Bogue et al. (2017) suggests that some

barriers that affect access to effective mental health care for the African American community include the cost of the care, transportation, childcare and lack of social support. This Honors research study investigates what factors contribute to the mental health stigma and non-usage of mental health resources among Brockport students who self-identify as African, African-American, Afro-Caribbean and/or Afro-Latinx. 31 students (Mage= 20.23 years) enrolled in or who have graduated from SUNY Brockport completed a 21 question Qualtrics survey that included questions about their definition of mental health and what it means to them. 8 participants completed one optional follow up interview. Understanding this topic is important to SUNY Brockport and the general public because it provides qualitative evidence of the lack of social support and vulnerability individuals in this community face and the kinds of resources and support they need to improve their mental health.

Mental Wellness of Athletes In-Season Compared to Off-Season

Presenter: Meaghan Lurz

Area(s) of Study: Healthcare Studies, Honors College, Kinesiology, Sports Studies, & Physical Education, Psychology

Faculty Sponsor: Dr. Stephen Gonzalez

Collegiate athletes face many stressors throughout their college careers that can impact them in a multitude of ways. One question that remains largely unknown regarding collegiate athletes and stress is whether stress is higher when an athlete is in-season or out of season. To conduct this study, 91 student-athletes at SUNY Brockport were surveyed about their mental status and wellbeing. They were asked 27 questions inspired and taken from the Beck Depression Scale. Athletes in-season and out of season were surveyed in the Fall of 2019 to compare and contrast the results from both seasons. A t-test analysis revealed the mental well-being of athletes was hindered more when they are in-season, compared to out of season. The results can help create new policies and recommendations for athletic departments to implement in order to ensure that student-athletes are taking care of themselves both physically and mentally given the demands placed upon student-athletes.

Metacognitive Awareness and Mind-Wandering of First Year College Students

Presenters: Timothy Horan, Adeola, Akinyemi, Mohit Mehta

Area(s) of Study: Graduate, Psychology

Faculty Sponsor: Dr. Amanda Lipko-Speed

Metacognitive awareness is the understanding of one's own knowledge --- the ability to reflect on your own understanding and regulate your behavior accordingly. The current study investigates the metacognitive awareness of college students during their first semester of college. 489 (Mage= 18.14 years) students enrolled in a semester-long orientation course completed a Qualtrics survey that included a revised 19-item version of the Metacognitive Awareness Inventory (Schraw & Dennison, 1994) and questions regarding demographics, perceived success, mind-wandering, and study strategies. Participants' metacognitive knowledge significantly correlated with their metacognitive regulatory behaviors. The most commonly reported successful regulatory behavior was organization of study material and the most commonly reported unsuccessful behavior was cramming. Overall, participants reported feeling moderately successful academically. Students reported experiencing significantly more mind-wandering in asynchronous class meetings compared to face-to-face class meetings. Reported mind-wandering rates between synchronous and face-to-face class meetings were not significantly different. Both metacognitive knowledge and regulation were significantly correlated with mind-wandering such that students who reported more mind-wandering had less metacognitive awareness. Considering the impact COVID-19 and the transition to remote learning had on student success, the results of this study will be compared to the results of a similar study conducted in Fall 2019.

MOKE Device Set-up

Presenter: Edward Ryan

Area(s) of Study: Physics

Faculty Sponsor: Dr. Kristen Repa

The magneto-optic Kerr effect (MOKE) compares the polarization and intensity of laser light after reflection from the surface of a magnetic material. The signal from the reflected light is converted to a voltage to create a magnetization vs. magnetic field curve to study surface magnetic properties of thin films. A MOKE device can have four possible geometries (polar, longitudinal, transverse, or quadratic) based on the magnetization direction with regard to incident light. We built a transverse MOKE, which orients the magnetization vector perpendicular to the light path and parallel to the sample magnetization direction. The equipment set up for a transverse MOKE consists of a coherent light source (635 nm laser), which produces a beam of light that travels through a polarizer prior to passing through a magnetic field produced by an electromagnet connected to a current regulator and a filtered DC power supply. Laser light reflects off of the sample, then

travels through a second polarizer before reaching an amplified detector connected to a lock-in amplifier. Once constructed, the MOKE will be used for research and instruction in the physics department.

Moving Through Liminal and Queer Space

Presenter: Lucy Mundschau

Area(s) of Study: Dance

Faculty Sponsor: Dr. Janet Schroeder

This research investigates the relationship between queerness and liminality through dance. Dance performance and movement studies offer a breadth of avenues to explore liminality and Queerness in conversation. In this research, I use the term liminality to refer to a state of being in transition and undefined. A dancing body existing in liminal space encompasses a sense of being out of bounds. I argue that the fluidity of gender and sexuality makes it liminal, and I endeavor to find how Queer identities and bodies are constantly in this space of transition, mobilizing in and through liminality. By engaging site-specific dance composition, as well as utilizing somatic practices and queer theory, this research seeks to express the liminality of the movement and performance space(s) and highlight the queer narrative. The temporal nature of liminality is also worth noting. Experiencing liminality, and being locked in this unsettled state of in-between destination, creates a new perspective for understanding time, as well as reality (the present) and memory (the past). When reality and memory blur, it creates a sense of nostalgia as the past becomes revisited in the present context, making it essentially queer by highlighting the transition and passage of time. I connect this experience of liminality with the queer experience, postulating that liminal spaces are inherently queer. I ask: when a queer body enters a space, does that space become liminal? When a body enters a liminal space, do they enter a state of queerness? How can existing in liminality and embodying this concept of transition become empowering? This research will be documented through dance choreography captured on video, and a portion of the research will also be written. Excerpts of this writing and the process of writing will be shared as part of the final performance and presentation.

Non-Emergency Response Time Prediction using Deep Learning

Presenter: Jillian Magyar

Area(s) of Study: Computing Sciences

Faculty Sponsor: Dr. Adita Kulkarni

Resource allocation for management of non-emergency incidents such as noise complaints, illegal parking, sidewalk damage, etc., is an important problem that needs to be addressed for smooth functioning of cities. In this work, we investigate how long it takes to resolve non-emergency requests in cities, which enables efficient resource planning for future incidents. Prior work related to non-emergency incidents use simple models like gradient boosting regression, random forests and gaussian conditional random fields for solving prediction problems, that do not effectively capture the complex dependencies in the data. In contrast to the previous work, we design a deep learning based model that captures the complex underlying pattern in the data and accurately predicts future response time for non-emergency requests based on historical data. Our model is an encoder-decoder sequence-to-sequence Long-Short Term Memory (LSTM) based Recurrent Neural Network (RNN). We perform extensive experiments on the publicly available NYC 311 service requests provided by NYC Open Data. We effectively preprocess the data to deal with missing values and outliers since it makes the prediction task challenging. We use Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE) as our performance metrics. Our results demonstrate that the LSTM based model accurately predicts the future response times with minimum RMSE and MAE values.

Nonpharmacological Interventions for Chronic Cognitive Decline

Presenter: Madeline Winters

Area(s) of Study: Nursing

Faculty Sponsor: Dr. Susan Lowey

Chronic cognitive decline from dementia is a prominent disorder correlated with advancing age, which robs seniors of their memories and sharp intellect. Although dementia is an umbrella term for many types of progressive mental decline, Alzheimers disease is the most prominent form, so extrusive that one in three seniors die with either Alzheimers or another form of dementia. Caregivers, who are commonly familial members and spouses, often have to bear the burden of the harsh behavioral symptoms and cognitive decline that come with dementia. Even though dementia symptoms and diagnostics are so common, the cause and cure are left undetermined. The purpose of this literature review is to examine the various nonpharmacological interventions that can be used by caregivers in maintaining cognitive functioning and managing behavioral symptoms. The methods used included searching various databases using keywords such as nonpharmacological, dementia interventions, Alzheimers disease, and caregiver interventions. Various articles were found concluding proven benefits with certain nonpharmacological therapies including aromatherapy, acupuncture, memory

clinics, robot technology, music therapy, herbs and more. Ultimately, literature tables were created in the thesis and will be further developed into pamphlets to be distributed to community centers in order to reach the caregiver and patient population for use.

On the Basis of Politics: Public Approval of the Supreme Court

Presenter: Melissa Barnosky

Area(s) of Study: History, Honors College, Political Science & International Studies, Pre-Law

Faculty Sponsor: Dr. Susan Orr

Over the last century, the Supreme Courts decisions have become increasingly salient to the public, as they regard some of the most polarized topics in American politics. This has prompted serious concern for the institutions legitimacy; if citizens view the Court as political as they do the Presidency and Congress, then the judicial branch will no longer be seen as possessing a distinct role in American politics”a role premised on the perception that the Court exercises legal rather than political reasoning. However, what happens if the legal reasoning applied by justices to constitutional interpretation becomes politicized in the publics mind; could this undermine the Courts legitimacy? This study will use survey results from the students, faculty, and staff of SUNY Brockport campus to determine to what extent the public utilizes constitutional interpretation as a proxy for ideology. Specifically, it will investigate how closely individuals approaches to interpreting text align with their political ideologies and/or identities. It will further seek to discover whether average citizens can take their expressed approaches to interpreting the Constitution and apply them to hypothetical Supreme Court case decisions or if they contradict their expressed approaches by instead applying their political identities to such case decisions.

One Swan, Two Swan, Black Swan, White Swan: The Queer Pas De Deux and Subverting Normativity in Swan Lake (Essay)

Presenter: Lucy Mundschau

Area(s) of Study: Art, Dance, Women & Gender Studies

Faculty Sponsor: Dr. Janet Schroeder

This essay theorizes through the lens of queer dance that the contemporary adaptations of Swan Lake by choreographers Matthew Bourne and Alexander Ekman act as a cultural catalyst, challenging the ways in which audiences interpret and view gender, sexuality, the body, and relationships. By first defining queer dance, the project looks at the choreographed structure of relationships and meaning in Swan Lake; particularly, through the structure of the pas de deux, and its entrenchment in the narrative of heteronormativity. Once in defined, through close analysis and comparison between the original choreography and the performance of the adaptations, it becomes clear that the work of Ekman to investigate gender and identity and Bourne to challenge notions of sexuality in performance, are both forms of queer dance. These Swan Lake adaptations and the queer pas de deux act as a liberation and an opening of new movement potentials for dancers and individuals of all gender presentations and identities.

Parenting and College Student Marijuana Use

Presenter: Allison Miley

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Caitlin Abar

Marijuana is a frequently used drug for many adolescents and young adults. Parenting may play a role in whether or not youth use marijuana, with previous research linking parents' knowledge of their child's academic behavior with marijuana usage (Bergman, Dudovitz, Dosanjh, & Wong, 2019). The current study examines associations between parental involvement and control and college student marijuana usage using developmentally appropriate measures of parenting and a detailed index of student marijuana use. In this study, we surveyed 182 Brockport using Qualtrics about their marijuana usage, as well perceptions regarding their parent's involvements in their lives. The basic demographics of the sample were 67% women, 84% white, and 11% black. The average age was 19.5 years with 62% freshman and 19% sophomores. We anticipate that students with parents who are less involved in their lives will use marijuana at a higher rate.

Patterns and Trends Found in Sequences with Trigonometry and Factorials

Presenter: Emily Hampston

Area(s) of Study: Mathematics

Faculty Sponsor: Dr. Gabriel Prajitura

I am looking into the behavior of sequences involving sine and factorials to attempt to find patterns and trends.

Post-Implementation Assessment of Agricultural Best Management Practices on Sub-Watersheds of Conesus Lake: Year One Water Quality Monitoring Results

Presenter: Daniel Beers

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Michael Chislock

Freshwater ecosystems are among the most impacted in the world. Globally, nutrient pollution is the most widespread water quality issue. Agricultural watersheds often have altered hydrology that can result in amplified nutrient export and plumes of runoff. High nutrient runoff can lead to eutrophication. Agricultural best management practices (BMPs) are practices that are intended to improve water quality and reduce nonpoint source pollution. In this presentation, I will examine preliminary results from my graduate thesis examining the impact of agricultural BMPs on water quality of Conesus Lake and its tributaries. Results from year one water quality monitoring will be used to determine if there are differences in nutrient and total suspended solid concentrations between BMP, non-BMP, and reference tributaries. I will also compare base-flow and storm event (> 0.5 inches rain in < 24 hours) sampling as well as examine seasonal patterns between the tributaries. Results of this research will add to a growing historic dataset and will be used to re-evaluate the effectiveness of BMPs that were implemented in the early 2000s. Results will also help evaluate if external nutrient loading is contributing to eutrophication along the lake nearshore, especially in proximity to highly agricultural tributaries.

Professional Development: Arts Integration

Presenter: Julia Aronica

Area(s) of Study: Arts for Children, Education & Human Development, Honors College

Faculty Sponsor: Christian Carson

This presentation in my senior undergraduate honors thesis at SUNY Brockport. It highlights my course work, research, and overall education in the fields of interdisciplinary arts and childhood inclusive education. The goal is to promote the arts integration model of content instruction by outlining its definition, providing 5 original lesson plans and accompanying resources, and provide helpful tips and references for the education community to utilize. My hope is that my fellow teachers view this presentation and consider facilitating arts integration into their instruction to help benefit their future students.

Southern Women in the American Civil War - Scholars Day 2021

Presenter: Fiona Stockdale

Area(s) of Study: History

Faculty Sponsor: Dr. John Daly

There is a common interpretation in history that due to such strict gender roles in the Southern United States women were completely passive in the American Civil War. The purpose of this project is to prove that Southern women were not entirely passive towards the Civil War and in fact many of them were actively involved in aiding the Confederacy. Through an analysis of primary sources that mostly consist of diaries kept by Southerners, and a number of secondary sources written by historians on the very subject, I will be able to support this claim. This research is important because it is crucial to tell sides of history that are often not told and because of gender roles, women's history is often overlooked. What these women did start to chip away at the strong gender roles of the antebellum South which is a very early point in American history. Thus, it is crucial I as a historian tell this story. My work will be presented asynchronously for Scholars Day and the product itself will be a research paper with Chicago Manual Style citations. Dr. John Daly from the History Department is my faculty advisor for this project.

The Basic Psychological Needs in Physical Education Scale for Use with Students with Visual Impairments: A Delphi Study

Presenter: Lindsay Ball

Area(s) of Study: Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Lauren Lieberman

Introduction: Currently, there is no quantifiable instrument specifically vetted to measure the self-determination of students with visual impairments based on their experiences in physical education. Vlachopoulos and colleagues (2011) developed the Basic Psychological Needs in Physical Education Scale (BPNPE). The scale is comprised of items that measure the basic psychological needs of autonomy, competence, and relatedness, which are essential components of self-determination. The purpose of this study was to begin the vetting process of the BPNPE by utilizing content and face

validity procedures. Methodology: The Delphi Method was utilized to establish face and content validity for the BPNPE, as it relates to students with visual impairments, through the consensus of experts. For each item experts rated the quality, importance, degree to which the item relates to self-determination and provided wording suggestions and comments. Based on the feedback the questionnaire items were revised and presented back to the expert panel until consensus was reached. Results: The third round of obtaining feedback provided by the expert panel is currently in progress. The previous two rounds resulted in consensus among the expert panel for 2 autonomy items, 2 competence items and 1 relatedness item.

The Camera as Witness Costume Designer: Emma Scholl; Undergraduate Dance Majors: Victoria Congdon, Sophia Constable, Abigail Fox, Kaitlin Hill, Stephanie Kleman, Devonn Mckenna, Macenzie Reese, Kelsey Scalzo, Katrina Smith, Meghan Wido; Graduate Dance

Presenter: Associate Professor Mariah Maloney

Area(s) of Study: Dance

Faculty Sponsor: Associate Professor Mariah Maloney

Film. Associate Professor, Department of Dance, Mariah Maloney As the pandemic shuttered people in their homes, choreographer Mariah Maloney found herself dancing alone in her living room with the camera as witness. Months later, Maloney located her choreographic process outdoors working with natural light and landscape in collaboration with costume designer Emma School and film maker and composer Michael Baumwoll. March 15, 2020 through March 15, 2021, Maloney created dances film Hill Sky, and Rhythm in Movement in collaboration with film maker Michael Baumwoll. As a performer and choreographer, Maloney explores improvisation in dialogue with choreographic structure to unearth the articulate sensing body inside solo and ensemble choreography.

The Detection of Performance Enhancing Drugs (PEDS) in the World of Endurance Sports

Presenter: Victoria Weller

Area(s) of Study: Honors College, Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Craig Mattern

Performance Enhancing Drugs (PEDS) have been used by athletes for decades. Many cases of PEDS use had been kept quiet until the late 1990s. Since then an explosion of allegations lead several organizations to put rules and testing procedures in place in efforts to combat PEDS abuse. In the case of endurance sport, a common PED is Erythropoietin (EPO), which is particularly effective at enhancing oxygen utilization, and consequently exercise performance. EPO was regularly used in the Tour De France but was not brought into the public eye until the late 1990s. There is still uncertainty on why and how athletes, such as Lance Armstrong, use these enhancers, knowing there's a possibility of detection. To proactively combat the use of PEDS, an analysis is needed on psychological and social behaviors of athletes. There have been some prevention measures put into place, such as the creation of World-Anti Doping Administration (WADA), but is this enough to control PEDS abuse? New advances such as genetic engineering and gender transformation, also present future challenges and ethical debates regarding fair-play in sport. This presentation will determine if more preventative measures need to be in place and if there will be an end to PEDS.

The Devastating Decline of Insect Populations

Presenters: Eric Olsen, Cara, Maresca, Nora DiLorenzo, Steve Altrieth

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Christopher Norment

Across the globe, insects have the most significant impact on ecological systems than any other group. Invertebrate species perform countless invaluable services, including pest control, decomposition, soil enrichment, aeration, food production, and pollination. Despite this fact, research on insects significantly lacks across the board compared to vertebrate species, though recently, an alarming decline has been noted. According to a long-term study in Germany, the insect population has declined 75% since the 1980s, primarily because of pesticide usage in industrial farming. Along with supporting evidence and studies, other potential causations and hypotheses will be considered. Certain vital insect species such as the Honeybee and the Monarch butterfly, that are distinctly at risk of the impending ecological collapse will be the species that lead to acceleration. Without rapid, effective alterations in human behavior, most insect populations may continue to decline, taking with them an untold number of other species and irreparably damaging society as we know it today. Governmental policies that focus on vulnerable insect species will progress towards fixing the decline and communicating the importance of these often-neglected groups.

The Effect of an Invasive Terrestrial Grass on Wetland Plant Diversity

Presenter: Abby Lysiak

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Andie Graham

Slender false brome (*Brachypodium sylvaticum*) is an invasive terrestrial grass that can be found in a multitude of habitats, including forested wetlands. One of the largest known infestations in this region is located in Bergen Swamp, Genesee County, NY. The purpose of this study is to determine the impact of the terrestrial grass on wetland plant diversity. We also investigated the relationship between forest canopy and slender false brome. We randomly selected 50 sites in Bergen Swamp to survey. At each site, we used a 1m² quadrat and identified all plants and estimated percent cover. We collected canopy cover using a spherical densiometer. We calculated and compared site diversity in areas with and without slender false brome using the Shannon-Wiener Diversity Index. We used a Linear Regression to compare canopy cover to slender false brome cover. Results showed no significant relationship between canopy cover and slender false brome ($R^2 = 0.002$, $p = 0.7$). However, we found that areas invaded by slender false brome had considerably lower plant diversity ($H = 2.5$) than areas without slender false brome ($H = 3.5$). The results of this work suggest that slender false brome can grow in a variety of light conditions and can impact native plant diversity in wetlands.

The Effect of Nitrate Supplementation by Beetroot Juice on Anaerobic Performance of Gymnasts

Presenter: Amy Eck

Area(s) of Study: Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Dr. Heidi Byrne

Research has been conducted to investigate dietary nitrate supplementation on improvements in athletic performance. Nitrate is a polyatomic ion obtained from diet that aids in vasodilation, vessel tone, and maintaining proper endothelial function. The first purpose of this thesis presentation is to review the literature conducted on nitrate supplementation with a focus on anaerobic exercise performance. Nitrate supplementation has been shown to improve aspects of both aerobic and anaerobic exercise due to the increased cardiovascular demands of exercise, but results in anaerobic performance have been less consistent. The second purpose of this thesis presentation is to propose a research design developed to investigate the use of beetroot juice on anaerobic performance of collegiate gymnasts. A randomized crossover design would have been used, including six days of supplementation with either beetroot juice or low-nitrate placebo, a gymnastics-specific anaerobic performance test, and a Wingate cycle ergometer test. Blood lactate levels would have been monitored during recovery after these tests to determine how nitrate supplementation impacts post-exercise blood lactate levels. This study was canceled due to COVID-19 research restrictions, but the literature review and experimental research design may provide insights to possible physiological benefits and mechanisms of nitrate supplementation.

The Effects of Melanin-concentrating Hormone Signaling in Pre-adipocytes and on Perilipin Signaling

Presenter: Brianna Dudley

Area(s) of Study: Biology

Faculty Sponsor: Dr. Laurie Cook

Melanin-concentrating hormone (MCH) is a cyclic polypeptide expressed in the lateral hypothalamus with appetite-stimulating properties. MCH signaling has been directly implicated in the regulation of adipogenesis and lipid droplet formation in previous research, and activation of the receptor has been demonstrated to act on multiple downstream signaling pathways via G-coupled proteins. To further characterize the effect of MCH signaling during adipogenesis, mouse 3T3-L1 cells were cultured and treated with four different MCH concentrations (0 nM, 1 nM, 10 nM, and 100 nM) during differentiation of pre-adipocytes to adipocytes. After staining the fully differentiated cells with Oil Red, the dye was eluted and used to quantify lipid accumulation. We hypothesized that increasing concentrations of MCH would result in increased lipid accumulation in cells; however, analysis revealed that data was not within statistical significance and thus further work must be done to accept or reject the hypothesis. Additionally, the role of MCH signaling on perilipin activity was studied. Perilipins are a class of proteins found on the surface of lipid droplets and regulate lipolytic activity in cells. Adipocytes were treated with 100 nM MCH for up to 60 minutes and then stained with perilipin, and images of the cells were then analyzed using ImageJ software measuring fluorescent intensity. We hypothesized that increased MCH treatment times reduces lipolytic activity and thereby decreased perilipin signaling. This work will help us further elucidate the role that MCH plays in regulating the integrity of lipid droplets in adipocytes.

The Methodology of African American Literature

Presenter: JaVanshe` Ryland-Buntley

Area(s) of Study: English, Honors College

Faculty Sponsor: Dr. Althea Tait

This presentation explores the repercussions of silencing and suppressing an entire racial group in discussion with African American art forms, specifically literature. It will examine the oppressive nature of America on African American people throughout various time periods and consider the ways Americas racist structures have continually attempted to silence and enslave the black body. The presenter assesses various works of African American literature considering the ways the authors use their artwork to retaliate against their suppressors and allow their voices to finally be heard. Considering the aim of the work, the presenter expounds the methodology and framework of African American literature as it relates to the writers novel, Not Silenced.

The Psychological Impact of the Juvenile Justice System on Juveniles who reenter Society

Presenter: Kersha Richard

Area(s) of Study: Criminal Justice, Honors College, Psychology

Faculty Sponsor: Dr. Bora Lee

Abstract Majority of juveniles within the US juvenile justice system suffer from mental health issues and labeling after incarceration which are mostly related to their recidivism (Baglivio et al., 2017; Lee et al.; 2017). This paper aims to identify the psychological effects of the juvenile justice system on the offenders by focusing on the labeling theory. Furthermore, this paper explores the impact of labeling on juveniles preconceptions about themselves, and whether these preconceptions influence juveniles' recidivism rates. This paper uses meta-analysis using 19 empirical studies. Researchers suggest a reformation of juvenile justice policies, which addresses the issue of the length of stay, and mental health outcomes of juvenile offenders who have been incarcerated (Gandelman et al., 2020; Gonzalez et al., 2017). In addition, positive appraisals, youth involvement in a community-based program, employment opportunities, and education could help reduce their recidivism by addressing juveniles' low self-esteem and low self-worth because of labeling (Abrams et al., 2011; Kroska et al., 2017; Miller et al., 2019). The results of this paper could help improve juvenile's mental health issues, combat social labeling on them, and reduce their recidivism rates.

The Relation Between Interest-based Teaching Practices and Student Performance in The High School Mathematics Classroom

Presenter: Morgan Sherwood

Area(s) of Study: Education & Human Development, Mathematics

Faculty Sponsor: Dr. Carol Wade

This study consists of a survey that was administered online to students at the State University of New York (SUNY) Brockport in the Fall 2020 semester. Participants were recruited from a variety of academic disciplines in reference to their high school mathematics experiences. The survey was broken up into two sections. The first section asked about the mathematics class that they received the highest grade in, and the second section asked about the mathematics class they received the lowest grade in. By asking the same questions across these two sections we were able to compare which teaching practices mathematics teachers employed that had a higher impact on student performance. It was found that interest-based teaching practices in the categories of Classroom Discussions, The Learning Environment, Connections to Everyday Life, and Presentation of Topics had statistically significant differences in the mean responses of participants. The implementation of these interest-based teaching practices may lead to an increase in student performance.

The Role of the Other Race Effect in Identification

Presenter: Angelina Vazquez

Area(s) of Study: Honors College, Psychology

Faculty Sponsor: Dr. Stacy Birch

The role of the Other Race Effect in Identification This thesis examines how the Other Race Effect (ORE) can play a role in our decision making within the context of identification processes in the criminal justice system. It is my intent to effectively elucidate on why ORE occurs through discussion of exposure and social contributors. First, I will focus on concepts about exposure and relate it to how the amount of exposure to other races generates the ability to recognize other- race faces compared to same- race faces. Specifically, I will draw attention to discussions on perceptual effects in order to highlight the developmental processes involved that contribute to how individuals perceive others faces. Second, I incorporate social contributors such as ingroup versus outgroup advantages in order to answer the question on how potential outside influences can interfere with decision making. Ultimately, I address the two mentioned areas of concerns with hopes to understand and demonstrate how both concepts account for why individuals do better at recognizing people of their own race than those of other races. The research discussed through empirical review will provide insight to demonstrate the need for further discussion on ORE and how it can influence important decisions, especially during a cross-race identification.

Theatre: Not Just for Laughs

Presenters: James Mitchell, Jenna, Hewitt, Andrew Parisi, Jillian Oddo, Torrence Snyder, John Ankrom, Isabella Santana, Kenneth Debot, Abigail Post

Area(s) of Study: Theatre & Music Studies

Faculty Sponsor: P Gibson Ralph

For more than 2,000 years, theatre has been entertaining audiences. However, at its roots, theatre has had objectives beyond that of entertainment. When examined globally, theatre has emerged from rites and rituals, frequently to heal or guarantee a prosperous harvest or successful hunt. The presentations from students in the Theatre and Dilemmas in Society class present in this session current ways in which theatre is used to teach, to affect change, to nurture, to support society as a whole or specific sub-groups such as theatre behind bars, community drama, and theatre of inclusion.

Therapeutic Lying

Presenter: Kaitlyn Palermo

Area(s) of Study: Nursing

Faculty Sponsor: Dr. Susan Lowey

Currently in the United States of America, it is estimated that about 5.7 million people are living with dementia. Out of the 5.7 million cases about 60-70% also have Alzheimers disease. Alzheimers disease and dementia are both progressive neurological diseases that affect an individuals memory. The first early symptom of Alzheimers is the lack of ability of remembering new information because the disease attacks the learning ability of the brain first. As the disease continues to progress the symptoms get worse. Therapeutic lying is used in long-term care facilities the most due to almost half of the population having Alzheimers and or Dementia. Therapeutic lying, a common ethical issue in medical practice, is defined as using lies or deception to preserve the patients hope, and psychological and moral integrity, as well as his self-image and dignity (Richard, Lajeunesse, & Lussier, 2010, p.353). The purpose of this literature review is to examine the use of therapeutic lying by healthcare professionals with patients with Alzheimers disease and/or Dementia. Multiple databases were used to search for articles supporting my literature review, the following words were used: Alzheimers disease, dementia, therapeutic lying. Articles published between 2000-2019 were used in this literature review. Overall, there needs to be more direction on how caregivers should be using therapeutic lying so it can be more regulated.

Top Executive Gender Diversity in Accounting and Finance Research: A Review

Presenter: Holly White

Area(s) of Study: Accounting, Economics, & Finance, Business, Honors College

Faculty Sponsor: Dr. Yin Liu

In recent decades, the percentage of women entering the workforce has increased dramatically. Although females represent almost half of the total labor force in the United States, they are still underrepresented in many positions of power in companies. Few women can break through the glass ceiling and rise to the top management level. To understand how this implicit masculine bias among senior executives affects firm fundamentals, researchers have begun to investigate the impact of managerial gender on various corporate decisions. In this study, we review and access research papers in accounting and finance to evaluate the impact of top executive gender on managerial decision-making and firms performance. While we are continuously making efforts to improve the gender diversity in top management teams, the question of whether the impact of managerial gender is a relevant factor in corporate decision-making and performance is still open. Most studies support that female executives are generally more cautious and more ethical than male executives are when making corporate financial and accounting decisions. However, prior literature also find the mixed evidence. For example, when decisions are made in the more secure environment, females tend to take the same or more risk than their male counterparts. In sum, findings on this area remains inconclusive. Therefore, we end by summarizing the challenges and proposing the outline to better understand the gender diversity among top executives in future.

Trial Frequency in Contingency Learning.

Presenter: Angela Sushko, Emily, Szembrot, Danielle Hussar, Annas Scott, Joshua Blodgett

Area(s) of Study: Graduate, Psychology

Faculty Sponsor: James Witnauer

Associative learning results from contingent exposure to a cue and an outcome such that, given a specific cue, a participant will expect its paired outcome. Extinction is the decrement in associative strength after acquisition that results from cue-alone presentations. Experiments from our laboratory have detected (1) increases in the frequency but not the duration of cue-alone events affects ratings of the cue-outcome relationship at test, (2) increases in the frequency but not the duration of A events increased ratings of cue-outcome contingency, and (3) duration but not frequency of cue-outcome coabsence

during an extinction procedure affect contingency ratings. Overall, cumulative frequency of cue-alone events, and not cumulative duration, during extinction trials impacts effectiveness of extinction. Like extinction, the overexpectation effect is a decrement in responding after acquisition. The overexpectation effect is produced by post-acquisition compound training of a to-be-tested cue with a well-established signal for the outcome. Ongoing experiments are extending research on extinction to study the impact that trial frequency has on the overexpectation effect.

Trypanosoma brucei and TbLpn

Presenter: Clay Baron

Area(s) of Study: Biology

Faculty Sponsor: Dr. Michel Pelletier

Trypanosoma brucei is a parasitic protozoan responsible for a devastating disease known as African Sleeping Sickness. Phospholipids biosynthesis, particularly phosphatidylcholine (PC) and phosphatidylethanolamine (PE) plays a major role in the survival of *T. brucei*. Of great importance is the fact that, as opposed to other parasitic organisms, trypanosomes synthesize phospholipids *de novo*. Although the pathways for phospholipids biosynthesis have not been very well characterized, recent data have helped to better understand how trypanosomes are able to assemble phospholipids. Previous work in our lab has shown that a protein, termed TbLpn, is a phosphatidic acid phosphatase potentially involved in phospholipid biosynthesis in *T. brucei*. These phospholipids are known to be present in both the bloodstream and procyclic coats of *T. brucei*. In addition, many amino acids are predicted to be phosphorylated in TbLpn. The major focus of this work is to determine the effects of specific amino acid phosphorylation on TbLpn enzymatic activity by using site-directed mutagenesis.

Use and Conservation of Deer Products in the Traditional Haudenosaunee Culture.

Presenter: Lee Charlier

Area(s) of Study: Theatre & Music Studies

Faculty Sponsor: Gail Artsinger

When the Haudenosaunee people hunted deer, they used every last part of the animal for the honored the spiritual and practical aspects of deer in traditional culture.

Using Floating Treatment Wetlands to Remove Nutrients and Restore Meadow Marsh Habitats in Wetland Systems in the Northeastern United States

Presenter: Kevin Killigrew

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Rachel Schultz

A significant threat that watersheds face is nutrient pollution, particularly excess phosphorus in freshwater systems. Floating treatment wetlands (FTWs) can remove excess phosphorus by plant and microbial uptake directly in the water column. We examined phosphorus removal rates in a mesocosm setting using different combinations of four wetland plant species native to northeastern North America; *Carex stricta* (tussock sedge), *Iris versicolor* (northern blue flag), *Juncus effusus* (common rush), and *Eleocharis palustris* (common spikerush), two different substrate conditions; no substrate and coconut coir, and a control with no plants or substrate. Each substrate was paired with three different plant combinations, tussock species (*Carex stricta* and *Iris versicolor*), reed species (*Juncus effusus* and *Eleocharis palustris*), and a mixture. We determined the total phosphorus and orthophosphate removal rates along with changes over time in chlorophyll-a, phycocyanin, dissolved oxygen, specific conductivity, and pH. Based on our results from this 9-week experiment, we found that tussock species with coconut peat substrate had the highest mean total phosphorus removal percentage at 78%. All three plant combinations with coconut peat substrate had mean removal percentages greater than 70%, while only one plant combination with no substrate had removal percentages over 70%. The treatment with the lowest total phosphorus removal percentage was the control at 65% removal. Future directions of this study include a field application of FTWs to determine nitrogen and phosphorus removal rates in retention ponds.

Using the Tesseract Software to Develop a Web Application for Parsing Receipts

Presenter: Jared Vascoe

Area(s) of Study: Computing Sciences

Faculty Sponsor: Dr. Jerry Ajay

Paychex is a Rochester, NY-based company that specializes in human resource, payroll, and benefits outsourcing services. As such, they deal with many receipts in order to document payment. The goal of this project is to increase the efficiency of processing these receipts by using an Optical Character Recognition (OCR) engine known as Tesseract. In order to do

this, we created a web application that allows a user to upload receipts and returns critical information such as the vendor, date of purchase, and total payment for each receipt. The web application allows users to upload receipts either one at a time, multiple at a time, or even in a folder. It then returns the results in an easy-to-navigate table. The completed product is able to accurately identify receipts for five different vendors and retrieve the necessary information from those receipts. Further refinement could allow the program to identify more vendors, improve the accuracy of the receipt parsing and information extraction, as well as improving the rate at which the program parses receipts. This talk will present the experiences of the student team in developing this software tool with faculty and industrial partner collaboration.

Validation of a Rabbit Polyclonal Antibody (ab53212) in Zebrafish using Immunoblot

Presenter: Olivia Douglas

Area(s) of Study: Biology

Faculty Sponsor: Dr. Adam Rich

Zebrafish are used in many labs due to their similar genetic structure to humans, ability to reproduce quickly, and transparency during early development. Many proteins produced by zebrafish are also expressed in humans, and this provides an opportunity to study function in a convenient model. Accurate identification of zebrafish proteins that correspond to human proteins is an important part of being able to investigate function. Here, the protein of interest is anoctamin 1 (Ano1). Ano1 is a calcium activated chloride channel in humans, but its specific function in zebrafish has not been studied. We want to localize and quantify Ano1 expression in zebrafish using an antibody. This project aims to validate polyclonal rabbit antibody (ab53212) for use identifying anoctamin-1 in zebrafish. Ab53212 was developed to identify human Ano1, and it has been used to identify murine Ano1. To validate Ano1 for identification of zebrafish Ano1 we isolated zebrafish protein and analyzed it using immunoblot. We anticipate that ab53212 will identify a protein of 111kD, and that this protein will be missing in an immunoblot using protein isolated from an Ano1 knockout zebrafish.

Validity of Impulsivity Measures in Adults

Presenters: Heather Graupman, Lauren, Teti, Lauren Soda, Cara Bakalik, Lori-Ann Forzano

Area(s) of Study: Staff, Psychology

Faculty Sponsor: Lori-Ann Forzano

The purpose of this study is to examine concurrent validity of two impulsivity measures in adults. Online, sixty-four college students completed the Delay Discounting Questionnaire--English Version (Soroma et al., 2019) and a laboratory behavioral self-control task, the Self-Control Video Software Task II (Forzano & Limer, 2018). A negative correlation was found between delay discounting log k value and proportion of self-control, indicating a significant level of concurrent validity between the two impulsivity measures.

Vaping and Its Relationship to Other Risky Behaviors in College Students: A Secondary Analysis of the ACHA National College Health Assessment

Presenter: Sarah Mahar

Area(s) of Study: Honors College, Public Health & Health Education

Faculty Sponsor: Dr. Joshua Fegley

There is a high likelihood that the use of electronic cigarettes has a relationship with participation in risky behaviors in college students. The aim of this study is to identify the relationship between the use of electronic cigarettes and six risky behaviors. This was a secondary analysis using the Spring 2019 ACHA National College Health Assessment. In addition to an extensive literature review multiple bivariate analyses were conducted using SPSS to identify the relationship between the use of electronic cigarettes and each individual risk behavior. A total of 34 survey questions were analyzed where eight survey questions indicated a correlation when compared to electronic cigarette use. The analysis found that alcohol use and substance use are directly related to electronic cigarette use in college students. College students who use electronic cigarettes are more likely to use alcohol one or more times within a 30-day period as well as drink five or more drinks in one sitting. College students who use electronic cigarettes are more likely to use marijuana and/or cocaine one or more times within a 30-day period. From this analysis, recommendations can be made about future programs or health messages with the focus on the use of electronic cigarettes on college campuses. Future interventions should focus on the known relationship between electronic cigarette use and alcohol use and substance use. Due to the rising popularity and increased usage, the American College Health Association should include more survey measures related to electronic cigarette use among college students.

Vegetation Communities and Porewater nutrient Concentrations are Different where *Typha x glauca* and Shrubs are Prevalent in a Coastal Peatland on Lake Ontario

Presenter: Sarah Kirkpatrick

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Rachel Schultz

The invasion of *Typha x glauca* and the encroachment of woody vegetation are drivers of change in peatlands. These drivers may inhibit peatland specific vegetation by altering nutrient availability. Our study investigates how vegetation communities may differ in areas where *T. x glauca* and shrubs are established. We conducted vegetation surveys and collected porewater samples from six sites in a degraded coastal fen on Lake Ontario and a reference wetland in pristine condition. We analyzed porewater nitrate/nitrite (NO_x), orthophosphate, and ammonia concentrations to reveal if nutrient availability was different in areas with greater *T. x glauca* and shrub cover. We found that plots with greater *T. x glauca* cover were associated with higher orthophosphate and NO_x concentrations, disturbance tolerant vegetation, and lower floristic quality. We also found that plots with greater shrub cover were associated with higher ammonia concentrations and higher floristic quality. Reference level vegetation communities were different from the sites at the degraded coastal fen. The sites at the reference wetland had greater native mean C values and floristic quality. These results will be useful in developing a restoration plan for the site and highlight trends in vegetation communities and porewater nutrients across *T. x glauca* invasion gradients and shrub dominated gradients.

Waterfowl Use Following Wetland Restoration in Lake Ontario Coastal Wetlands at Braddock Bay Wildlife Management Area

Presenter: Christopher Mitchell

Area(s) of Study: Environmental Science & Ecology

Faculty Sponsor: Dr. Rachel Schultz

Waterfowl Use Following Wetland Restoration in Lake Ontario Coastal Wetlands at Braddock Bay Wildlife Management Area

What are Stated Gaps in Injury Prevention and Treatment Available on College Campuses for Dancers?

Presenter: Carly Andrade

Area(s) of Study: Dance, Honors College, Kinesiology, Sports Studies, & Physical Education

Faculty Sponsor: Stevie Oakes

This essay is dedicated to looking at the availability of medical assistance to dancers in the collegiate setting. Dance is a physically demanding activity with prolonged training timelines, however, there has been little dedication to the treatment and prevention of injuries in dance. The apparent lack of dedicated medical assistance dancers receive is what inspired this research. The objective was to better understand this lack and how it can be improved. It is important that dancers have resources available to help treat and prevent potential injuries, which will allow for longer and more fulfilling careers that do less chronic harm to their bodies. Based on a literature review contextualized further with first-person interviews, there are some opportunities that should be made accessible to collegiate dancers to help close this gap between the medical field and the dance industry. Recommendations include creating dance medicine facilities, providing cross training opportunities, creating experiences for athletic training or physical therapy students to learn about dancers as athletes, and prioritizing screenings for dancers. By creating resources that dancers can utilize and a comfortable environment where dancers can get help to treat and prevent injuries, this gap can be closed and could result in healthier dancers.

When We Speak Up: Factors That Predict Willingness to Confront Expressions of Racial Prejudice

Presenters: Julianna Testone, Korrine, Minster

Area(s) of Study: Psychology

Faculty Sponsor: Dr. Jennifer Ratcliff

Previous research has demonstrated that confronting prejudice is an effective method to reducing future biased responses. However, factors that encourage willingness to confront prejudice are less understood. There are two types of prejudice expression: blatant (i.e., direct and obvious bias) and subtle (i.e., ambiguous less detectable bias). Previous research has also revealed a relationship between the type of prejudice observers are exposed to and willingness to associate with the expresser of prejudice, with blatant prejudice leading to the most distancing. This research is expanding on this prior research by examining the of type of prejudice expression”blatant, subtle, no prejudice”on recognition of racial prejudice and willingness to confront the expresser. Across two samples (N=52, college student sample; N=68, online community sample), participants completed a hiring decisions study in which a manager rejects a Black applicant for a reason revealing either blatant, subtle, or no prejudice. Across samples, participants exposed to blatant and subtle prejudice recognized bias,

yet those exposed to the blatant expressions were more willing to confront than were those in the subtle or control conditions. Findings show that discernible bias may go unchecked when expressed in a so-called subtle manner.

Women Artists of the Renaissance & Self-Portraiture

Presenter: Megan Provost

Area(s) of Study: Anthropology, Art, History, Museum Studies & Public History, Women & Gender Studies

Faculty Sponsor: Dr. Alisia Chase

This presentation will look at three women artists of the renaissance and their self-portraits. This will talk about the significance of self-portraits to women at this time.

**Special thanks to the many members of our campus community who support
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