

research

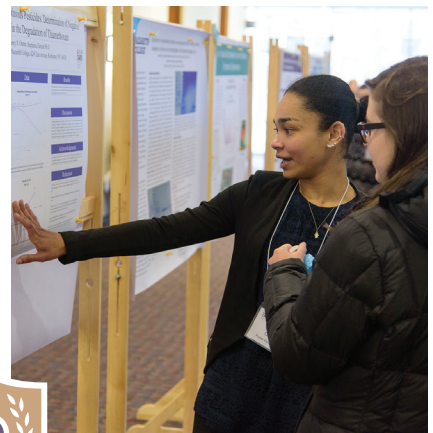


# CARS

CREATIVE ACTIVITY +  
RESEARCH SHOWCASE



present



**APRIL 16, 2019**

10 a.m.–8:30 p.m.

Nazareth College

Shults Center, Smyth, Arts Center

perform



# ***Introduction***

We are excited to host the eighth annual Creative Activity and Research Showcase (CARS), which showcases the scholarly and creative achievements of Nazareth students. For the second year in a row, CARS will be a full day celebration. We will suspend undergraduate classes (before 6 pm) and the day event will include projects by both undergraduate and graduate students. The evening event will feature programming specific to graduate students. In total, CARS 2019 will showcase 175 projects presented by over 375 students who will display their work in a variety of formats, including performances, posters, and presentations.

The CARS celebration highlights the remarkable breadth and depth of the academic activities available to undergraduate and graduate students at Nazareth, ranging from scientific research to theater performances. It also underscores the value of a Nazareth education in which faculty and students work collaboratively on the pursuit of learning and discovery.

I hope you are as impressed as I am with the many achievements of our students.

Sincerely,

A handwritten signature in cursive script that reads "Daan Braveman".

Daan Braveman  
President, Nazareth College

# ***Share Your Experience – #NAZCARS19***

One of the most exciting aspects of doing research and creative work is sharing one's work with others. We invite you to engage with CARS participants throughout this event by asking thoughtful questions about their work, by celebrating their accomplishments with them, and by sharing highlights of the day with your friends, family members, fellow students, and colleagues.

Just like presenting one's research or performing can sometimes be nerve-wrecking at first, so can asking someone, particularly someone you don't know, about their work. If that's you, we've got you covered! If you feel unsure about how to start a conversation with a participant about what they are presenting, you can find our handy "OSPFR Life Hack: Asking Great Questions at a Conference" guide at the registration table. Come pick one up for tips on how to ask presenters engaging questions that help you learn and help them further share all of their hard work with others.

Also, you will see comment boxes around the event – please fill out a comment card telling us what you enjoyed about CARS and/or suggestions you might have for us for next year. We are eager to read your feedback!

Lastly, please share highlights from today on social media by using this year's hashtag, #NAZCARS19. We can't wait to see all your favorite moments of CARS 2019!

## ***Thank you!***

As hosts of the annual Creative Activity and Research Showcase, the Office of Sponsored Programs and Faculty Research would like to thank our volunteers who have given their time to serve on the planning committee. We would also like to thank all participating faculty, staff, and students. We appreciate the commitment of both the volunteers and the participants to CARS and acknowledge that CARS would not exist without the support of the Nazareth College community.

### **CARS 2019 Committee**

Michelle Donahue - Physical Therapy

Catherine Doyle - Library

Diane Enerson - Psychology and Higher Education Student Affairs Administration

Grant Gutheil - Psychology

Katie Hjelmar - Sponsored Programs and Faculty Research, Graduate Assistant

Kelly Hutchinson – Chemistry and Biochemistry

Lindsey LaPlant - Psychology

Mary Maher - Nursing Global Studies and Public Health Program in Nursing

Debra Mathewson - Sponsored Programs and Faculty Research

Kimberly McGann - Sociology and Anthropology

Samantha Nolte-Yupari - Art Education

Jessica Slentz - Sponsored Programs and Faculty Research

Octavio Vazquez - Music

Edward Wiltse - English and Communication

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

<b>Format</b>	<b>Location</b>	<b>Time</b>
Welcome/Opening with President Braveman	Forum in Shults Center	<b>10:00 – 10:10 a.m.</b>
Honors Theses Defenses	Smyth 260	<b>10:00 a.m. – 4:00 p.m.</b>
CME Presentations	International Room in Shults Center	<b>10:15 – 11:15 a.m.</b>
Poster Presentations Session #1 (Even numbers 2 – 102)	Gym in Shults Center	<b>10:15 – 11:15 a.m.</b>
Interactive Creative Experiences	Reading Lounge in Shults Center	<b>10:30 a.m. – noon</b>
Paper Presentations Session #1 (Panels 1, 2, and 3)	Smyth 160, 161 & 163	<b>11:25 a.m. – 12:25 p.m.</b>
Presentations by 2018 SOARS Grant Recipients	1924 Room in Shults Center	<b>11:25 a.m. – 12:25 p.m.</b>
Performances	Arts Center A13	<b>1:15 – 3:00 p.m.</b>
Paper Presentations Session #2 (Panels 4, 5, 6, and 7)	Smyth 148, 160, 161 & 163	<b>1:25 – 2:25 p.m.</b>
Poster Presentations Session #2 (Odd numbers 1 – 101)	Gym in Shults Center	<b>2:35 – 3:35 p.m.</b>
Day Reception	Forum/Reading Lounge in Shults Center	<b>3:45 – 4:45 p.m.</b>
Evening School of Education Graduate Capstone Presentations	Porthole in Shults Center	<b>6:30 – 7:30 p.m. Invitation Only 7:30 – 8:00 p.m. All Invited</b>
Evening Graduate Poster Presentations (numbers 500-527)	Gym in Shults Center	<b>7:00 – 8:00 p.m.</b>
Evening Graduate Reception	Forum/Reading Lounge in Shults Center	<b>8:00 – 8:30 p.m.</b>

# ***Paper Presentation Schedule***

## **Paper Session #1: 11:25 a.m. – 12:25 p.m.**

### **Panel 1: Latin American Literature and Culture I**

#### **Room: Smyth 160**

Jaxon Smith: “La loca de Gandoca: How can fiction alter reality and legislation?”

Jessica Hernandez: “Representations about the experience of crossing the border”

Bridget Petracci: “Ana Maria Matute's La Rama Seca Analysis”

Allegra Hunter: “Oppression of Women in Argentina During the Dictatorship Analyzed through the Writing of Luis Valenzuela”

### **Panel 2: An Exploration of Irish Literature and Culture**

#### **Room: Smyth 161**

Amelia Paas, Noelle Hensler, Toni Battista, Emmarae Stein

### **Panel 3: The Effects of Chemicals and Pharmaceuticals on Living Systems**

#### **Room: Smyth 163**

Zachary Titus: “Effects of Treating Crohn’s Disease using Infliximab”

Emilee Hyde: “Effects of hydraulic fracturing on freshwater in the Marcellus Shale region”

Rachael Moyles: “The effects of select pharmaceutical chemicals on crayfish behavior and biological processes”

# ***Paper Presentation Schedule***

## **Paper Session #2: 1:25 – 2:25 p.m.**

### **Panel 4: Reflections on Race, Ethnicity and Intersectionality**

#### **Room: Smyth 148**

Cecilia Brown, Kelliann Ryu, Amanda Conaway, Adriana Schenk, Deanna Sillett, Kathryn Pollinger and Jennifer Wozniak

### **Panel 5: Food, Drugs, and the Brain**

#### **Room: Smyth 160**

Jessica Livesey: “The Gut-Brain Axis and Its Role in Disease and Health”  
Kayla Sinclair: “The Neuroprotective Effects of Curcumin”  
Jacob Cuyler: “The Blood Brain Barrier and its Implications in CNS Drug Design”

### **Panel 6: Latin American Literature and Culture II**

#### **Room: Smyth 161**

Ricarda Harnischmacher: “Subjectivity in Tragedia del fin de Atawallpa”  
Sarah M Rosero: “Rigoberta Menchú: The Idea of Truth”  
Jordan Fuller: “How Americanization and stereotypes of Mexican culture effects Mexican- American Relations”  
Abigail Farnham: “The U.S. Domination of Puerto Rico as shown in the Literary Works of Ana Lydia Vega”

### **Panel 7: Migration, Inclusion, Resistance**

#### **Room: Smyth 163**

Ganli Demyttenaere: “Expatriate Studies: Adjustment and Acculturation Implications for Repatriation Post-1960”  
Erin DeHaven, Anna Goings: “LGBTQIA+ Inclusivity”  
Laura Tuttle: “Mary's Place Refugee Outreach - Internship Experience and Program Evaluation”  
Jeremy Saunders: “Methods of Political Protest: Urban Civic Resistance in Ukrainian Euromaidan and American Occupy Wall Street”

# ***Honors Theses Schedule***

## **Smyth 260**

- 10:00 a.m. – **Ryley Amond**, “Esports vs Traditional Sports: Imposter or New Age?”
- 10:45 a.m. – **Laura Beeley**, “Understanding the Underground: An Ethical, Existential, and Psychological Analysis of Dostoevsky's Underground Man”
- 11:30 a.m. – **James McDonald**, “Getting your head in the game: How desirable traits in competitive athletes can lead to mental health issues”
- 1:00 p.m. – **Allison Kurthy**, “Stressed, Depressed, and Needing Rest: College Student Mental Health and What to Do About It”
- 1:45 p.m. – **Bethany Shaw**, “Understanding the Natural World through Chronology, Cartography, and Christianity”
- 2:30 p.m. – **Kiersten Hecht**, “Praying Twice: Music As a Means of Access to God”
- 3:15 p.m. – **Toni Battista**, “Bringing Humanity to the Brain: Unifying Science and Art”

## ***Core Milestone Experience***

### **International Room, 10:15 – 11:15 a.m.**

The Core Milestone Experience (CME) gives students the opportunity to reflect on their intellectual journey using artifacts from their perspective-enduring question (PEQ) courses, Integrative Studies, and Experiential Learning to create an enduring question. Students then create a project that demonstrates a thoughtful engagement and exploration of their Enduring Question.

The CME faculty has invited students whose completed projects were of exceptional distinction to share their work here at CARS. Please visit International Room (in Shults Center) from 10:15 to 11:15am to see the wide variety of exciting and insightful projects.



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**Please note:**

- 1. All information is included, without editing, as submitted by student participants.**
- 2. (G) following the poster number denotes graduate student participating during the day program.**
- 3. Posters numbered 500 and above indicate participation in the evening graduate program.**

## ***Honors Theses***

**Ryley Amond**

**Title:** Esports vs Traditional Sports: Imposter or New Age?

**Faculty Sponsor:** Professor Christopher Cummings, Honors

**Abstract:** The emerging of electronic sports, or esports, has created a large fissure in the general population; a battle between “real” sports, and esports and whether or not they should be given the title of “sports.” The rapidly growing industry of esports poses many different areas for exploration and crates waves in the day-to-day lives of many people across the globe. I intend explore the ways in which esports and traditional sports clash, but also to examine the areas in which they have common ground, and how people in the modern day should view this new era of “sports.”

**Motivation for Participating:** Requirement for Honors Program

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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**Toni Battista**

**Title:** Bringing Humanity to the Brain: Unifying Science and Art

**Faculty Sponsor:** Professor Foran, Honors

**Abstract:** This thesis aims to explore how the brain has been represented in literature throughout history. It looks at Shakespeare’s early 17th century Macbeth, poems and prose by 19th and 20th century woman writers, and Ian McEwan’s 2005 novel Saturday. I show how these writers make use of contemporary scientific knowledge about the brain to ask questions about human identity and motivation. I contend that the gap between the literary and scientific cultures posited by C.P. Snow and others does not stand up to scrutiny and that literature and neuroscience have always enriched one another and should continue to do so in the future.

**Motivation for Participating:** Requirement for Honors Program

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**Laura Beeley**

**Title:** "Understanding the Underground: An Ethical, Existential, and Psychological Analysis of Dostoevsky's Underground Man"

**Faculty Sponsor:** Professor Rachel Bailey Jones, Honors

**Abstract:** In Dostoevsky's "Notes from the Underground," the protagonist, known as the Underground Man, is a bitter and misanthropic man. His writings, as well as his thoughts and actions give us a picture of what kind of a person he is. His actions can be interpreted and analyzed through many lenses in order to get a clearer picture. In this Honors thesis, I will explore the psychological, ethical, and existential factors of the Underground Man.

**Motivation for Participating:** Requirement for Honors Program

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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### **Kiersten Hecht**

**Title:** Praying Twice: Music As a Means of Access to God

**Faculty Sponsor:** Professor Corinne G. Dempsey, Religious Studies

**Abstract:** This paper is a study of Hindu raga and its use in the Hindu faith. The first part of the paper analyzes the vast history of raga, instruments used in its performance, and modern use in the temple today. The second part of the paper takes a scientific look at music, specifically, psychoacoustics. It takes into account music's effect on the brain, and on the physical body. The third part of the paper is a case study on the Hindu Temple of Rochester. It includes my personal experiences, the temple's deep connection with music, and an interview with the leader of the temple, "Aiya". I wrote this paper after exhaustive research, telephone interviews, and trips to the Hindu Temple of Rochester. I also consulted with the ethnomusicology department at the Eastman School of Music. Being brought up in a Christian household, I was constantly amazed at how much of mass was centered around music. Music was something that brought the entire congregation together. It was how we communicated with the Lord, how we gave grace and thanks, and how we accepted his gifts (ie. The Holy Communion). I began to wonder why humans interpreted music as a way to embrace our spirituality in full.

**Motivation for Participating:** Requirement for Honors Thesis Defense

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**Allison Kurthy**

**Title:** Stressed, Depressed, and Needing Rest: College Student Mental Health and What to Do About It

**Faculty Sponsor:** Professor Rachel Bailey Jones, Honors

**Abstract:** This thesis is an investigation of the mental health of college students. This includes an analysis of where we are currently in terms of the mental health status of college students and what institutions typically offer currently. Issues with this present standing and options to possibly address these issues in order to create a higher education community that fosters improved mental health are then discussed.

Motivation for Participating: Requirement for HON 484

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**James McDonald**

**Title:** Getting your head in the game: How desirable traits in competitive athletes can lead to mental health issues

**Faculty Sponsor:** Professor Becky Fahy, Honors

**Abstract:** Competitive sports have long been seen as playing a positive factor in mental health. Traits such as confidence and perseverance, common in today's athletes, are important parts of maintaining positive mental health. However, as the competition level increases, the negative mental health effects on an athlete may also increase. Confidence may turn into an inability to accept loss or emotions while perseverance may lead to an inability to accept the need for help. These mental health effects within collegiate athletics can be detrimental as the college population as a whole find themselves especially susceptible to mental health issues. A literature review in conjunction with an autoethnography will be used to develop an understanding of the large scale issues within college sports; Investigating the multiple factors contributing to the negative mental health impacts of college students specifically in relation to competitive sports. It will further attempt to offer potential solutions to combat these issues within collegiate athletics.

Motivation for Participating: Requirement for HON485

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**Bethany Shaw**

**Title:** Understanding the Natural World through Chronology, Cartography, and Christianity

**Faculty Sponsor:** Professors Rochelle Ruffer, Rachel Bailey Jones, Matthew Temple, and Corinne Dempsey, Honors

**Abstract:** Within any religious tradition it is necessary to address the natural world and provide a template for how any devotee should relate to nature. Through the analysis of Christian Orthodox, Catholic, and Protestant theologians and scholars' works, one can witness that there are a variety of ways in which creation can be revered and respected. A juxtaposition of sermons given, scripture and theologians referenced, editorials written, and actions taken, one can understand how an individual's practice of Christianity influences how they understand the natural world. In conjunction with their spiritual practice, the time and place in which an individual lives is fundamental in formulating their relationship with the natural world.

**Motivation for Participating:** Requirement for HON485

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## ***Interactive Creative Experiences***

**Jonathan Coyle, Andrea Alati, Ayanna Glenn, Brittani Bub, Carmen Sapp, Elizabeth Guidi, Gabrielle Bradley, Kaitlyn Kinney, Lexus Mateo, Meagan Maher, Meghan Lavin, Miranda Maldonado, Sarah Balch, Stephanie Colao**

**Title:** Fun With a Purpose - Social and Emotional Learning

**Faculty Sponsor:** Professor Marie Watkins, Community Youth Development

**Abstract:** Social and emotional learning is the process through which youth and adults develop the skills necessary to recognize and manage emotions, build relationships, solve interpersonal problems, and make effective and ethical decisions (Yoder & Devaney, 2015, Beyond the Bell Social and Emotional Learning Practices Tool, pg 1). For youth, positive development of these competencies is critical for their life and academic success. Community Youth Development Integrative Capstone Seminar students developed activities to demonstrate and explain the five domains of social and emotional learning competencies as defined by the Collaborative for Academic, Social, and Emotional Learning (CASEL.ORG). In addition, students will explain the importance of trauma-informed and culturally responsive youth development. These hands-on activities will display the connection between “fun with a purpose” and social and emotional learning.

**Motivation for Participating:** Requirement for CYD-499

**Experiential Learning Pathway:** Service Learning

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**Mackenzie Reed, Erica Rivoli, Julia Smith, Miranda Eduardo, Ali Mack**

**Title:** The Golden Gazette: Newspaper Blackout Poems

**Faculty Sponsor:** Professor Leah Stacy, English and Communication

**Abstract:** For this creative activity, we want students to create newspaper blackout poems. We will have newspapers spread out on a table and thick black sharpies. Students can get creative and create poems by coloring over some of the newspaper texts. They can then decide to take the poems with them or we will keep them and feature them on our Instagram, Humans of Naz.

**Motivation for Participating:** We are a student organization that would like to showcase the creative talent Nazareth has to offer, specifically pertaining to writing and poetry.

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## ***Paper Presentations***

**Cecilia Brown, Kelliann Ryu, Amanda Conaway, Adriana Schenk, Deanna Sillett, Kathryn Pollinger, and Jennifer Wozniak (Panel 4)**

**Title:** Reflections on Race, Ethnicity and Intersectionality

**Faculty Sponsor:** Professor Devparna Roy, Sociology & Anthropology

**Abstract:** Race and ethnicity are social constructions that have real consequences on people's lives and are, at some moments, more salient to our identity than at other moments. We sometimes become more aware of our race/ethnicity as well as the race or ethnicity of those around us as a result of social situations and interactions. The "prompt" for the essay I wrote for a sociology course asked me to "think about a time when you became cognizant of your own race and when your race became a relevant element of a social situation." In writing this essay, I reflected on whether this event happened when I was with people of different races/ethnicities, or when I was with people who were racially similar to me. I explained what was going on that made me think about my race or ethnicity. I explained the context of the situation, my feelings about my racial/ethnic identification at the moment, and how that experience made me reflect upon the meaning of my racial and ethnic identity. I wrote this essay because it provided me an opportunity to reflect on my own racial/ethnic identity. Seven of us will participate in this panel. We hope to initiate to learn from each other and initiate a conversation about race, ethnicity and intersectionality.

**Motivation for Participating:** Requirement for SOC 410.30 "Race Ethnicity & Society"

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**Jacob Cuyler (Panel 5)**

**Title:** The Blood Brain Barrier and its Implications in CNS Drug Design

**Faculty Sponsor:** Professor Kelly Hutchinson, CHM/BCH/BIO

**Abstract:** Neurodegenerative diseases are incredibly hard to treat due to the presence of the blood-brain barrier (BBB). The BBB separates the blood of the body from the blood of the brain and prevents certain solutes and chemicals from crossing into the brain tissue. This review explores the anatomy and physiology of the barrier, the presence of BBB dysfunction in differing disease states (Alzheimer's and Parkinsons), and the impact the barrier has on central nervous system (CNS) based drug design. Future directions of CNS drug design transitioning from its current scaffold basis into one which uses nanotechnology to facilitate drug penetration into the brain will also be discussed.

**Motivation for Participating:** Requirement for SCI 420

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**Erin DeHaven, Anna Goings (Panel 7)**

**Title:** LGBTQIA+ Inclusivity

**Faculty Sponsor:** Professors Susan Mack and Dawn Vogler-Eglias, Communication Sciences & Disorders

**Abstract:** We developed an individualized presentation for the Communication Sciences & Disorders Department to discuss inclusive language to utilize, as well as exclusive language to avoid, in the workplace. Additionally, we provided the department with a variety of resources they could use to further their understanding of the LGBTQIA+ Community. First, we met with specific staff members to discuss how they felt this workshop would be received. After being met with enthusiasm and support, we worked cooperatively with the heads of the department to schedule a time for the presentation, distribute resources and surveys, and communicate expectations. We hope to work towards making professional and academic settings more inclusive for the LGBTQIA+ Community.

**Motivation for Participating:** We are motivated to continue our work towards advocacy and inclusion and would like to see this project grow.

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**Ganli Demyttenaere (Panel 7)**

**Title:** Expatriate Studies: Adjustment and Acculturation Implications for Repatriation Post-1960

**Faculty Sponsor:** Professor Olena Prokopovych, Political Science

**Abstract:** A flight to China costs 75% percent less than it did twenty years ago; the reason for this is growth in technology and global connectedness, known as a globalization. Globalization has given rise to the expatriate. An expatriate is someone who goes abroad for an extended period of time specifically for the purpose of work or family. As globalization has increased, research on the topic has created subcategories such as repatriation (the process of expatriates return), acculturation and adjustment. In this paper I explore the theories surrounding expatriation. I look at why people expatriate, and if work and family affect adjustment, meaning the experiences which determine an expatriates comfortability in a foreign country. I also analyze acculturation theory, which is the process that an individual or group in prolonged contact with another group takes to resolve conflicts, and how environment plus adjustment interact. Then I researched expatriate identity and if acculturation or adjustment have a role in its formation. I conclude that through specific pathways of adjustment and acculturation, an

## Paper Presentations

expatriate identity runs the risk of developing authoritarian characteristics through repatriation. Given current political issues, the views of 51.6 million expatriates is exceedingly relevant for understanding international interactions.

**Motivation for Participating:** Further experience presenting research

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### Abigail Farnham (Panel 6)

**Title:** The U.S. Domination of Puerto Rico as shown in the Literary Works of Ana Lydia Vega

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** For my CARS paper presentation I am analyzing a piece of Latin American literature written by the Puerto Rican author Ana Lydia Vega called “Encancaranublado” and “Arroz con Habichuelas” to write a paper about how the U.S. has had domination over Puerto Rico; but more specifically how Ana Lydia Vega has used her literature to show that. I have read and analyzed the short stories mentioned above and worked with my faculty advisor to make sure that I am really looking at these two short stories with a critical lens- rather than that of any reader which could be a literal lens. For this project I will analyze other cultural artifacts that pertain to this topic, and formulate my own thoughts based on that. I have pursued this project because not only of my own heritage, but because I believe the U.S. domination over Puerto Rico is something that is still relevant today.

**Motivation for Participating:** Requirement for SPN 400 (Senior Project for Spanish)

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### Jordan Fuller (Panel 6)

**Title:** How Americanization and stereotypes of Mexican culture effects Mexican-American Relations

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** I wrote a paper analyzing ways in which we give stereotypes to Mexicans based on what we know about their culture. I will be looking at commercials, and other cultural artifacts to see what parts of their culture we take and Americanize. I did this because I wanted to see how food and other aspects we take from their cultures affects how we see the Mexican culture and how that affects border control and Mexican-American relations.

**Motivation for Participating:** I find my topic interesting and I want to share my analysis of my research.

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**Ricarda Harnischmacher (Panel 6)**

**Title:** Subjectivity in Tragedia del fin de Atawallpa

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** In my research paper I closely analyze the topic of subjectivity as seen in the play Tragedia del fin de Atawallpa written by Bolivian author Jesús Lara in 1857. The piece offers a unique perspective of the Spanish conquest of the Andes, as it is told from the Inca point of view. I chose to analyze the play through the theoretical lens presented by Jeffrey Nealon and Susan Searls Giroux in *The Theory Toolbox*. Guided by the notion that subjectivity and self are strongly reflected in language and culture, I show that the Incas are subject to their own experiences and knowledge and, thus, that they are subordinate to their culture and subsequently become subject to their own culture with limited knowledge of the outside world. I closely observe this in terms of communication between the Incas and the Spanish, as well as the way the Incas describe the unknown by using the limited terminology known to them. This topic has been of interest to me as it proves that language can function as a barrier in communication and that, at times, even the best attempt to translate an experience cannot capture the true essence of an event as it remains hard to translate the cultural aspects of these experiences.

**Motivation for Participating:** As this is my research for senior composition, I've come to be very passionate about the topic and discovered how relevant it is in my chosen field of study, especially translation.

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**Jessica Hernandez (Panel 1)**

**Title:** Representations about the experience of crossing the border

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** My paper is about representations about experiences of migrants or Mexicans crossing the border. I use the book, *The Distance Between Us* by Reyna Grande and the short story "Rio Grande, Rio Bravo" to explain what the experiences are like. I also discuss the idea of subjectivity and how migrants or undocumented/documentated immigrants are seen by citizens of the United States.

**Motivation for Participating:** Requirement for SPN 400

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## Paper Presentations

### **Allegra Hunter (Panel 1)**

**Title:** Oppression of Women in Argentina During the Dictatorship Analyzed through the Writing of Luis Valenzuela

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** I will analyze the oppression of women in Argentina under the dictatorship, from 1976-1983, through two short stories by Luisa Valenzuela. The two stories are “Cambio de Armas” (“Other Weapons”) and “La Palabra Asenio” (“The Word ‘Killer’”) both which give us insight to the role of women at this time and the scale of oppression in Argentina. We will use a lens from *The Theory Toolbox: Critical Concepts for the New Humanities* by Jeffrey Nealon and Susan Giroux; that looks at how the identity and subject is defined through social and cultural context. We will do this to help us uncover how women were subjected and identified themselves at this time in Argentina.

**Motivation for Participating:** To present my Senior Spanish Comp

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### **Emilee Hyde (Panel 3)**

**Title:** Effects of hydraulic fracturing on freshwater in the Marcellus Shale region

**Faculty Sponsor:** Professor Kelly Hutchinson, CHM/BCH/BIO

**Abstract:** The demand for energy has been rising due to an increasing global population and globalized world. This demand, coupled with the discovery of gigantic oil and gas reserves inside shale rock and new technologies for extraction, has created a boom in hydraulic fracturing. However, this extraction method has created controversy over its efficiency and sustainability, especially in regard to its competitors of green energy and potential pollution issues with production of wastewater. Studies have focused on investigating the presence of methane and other contaminants from fracturing wastewater entering freshwater in proximity of gas wells which have the potential to affect living systems within the freshwater as well as the drinking water supply. This review addresses the research conducted on water quality in the Marcellus shale region of Pennsylvania and New York, with special regard to the Finger Lakes area. Specifically, factors of local geological structure, water flow, and regulations will be discussed as well as possible mitigation strategies of these issues and suggested future directions for the Finger Lakes area.

**Motivation for Participating:** Requirement for SCI 420

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**Jessica Livesey (Panel 5)**

**Title:** The Gut-Brain Axis and Its Role in Disease and Health

**Faculty Sponsor:** Professor Kelly Hutchinson, Science

**Abstract:** Throughout the scientific community, multiple studies have connected changes within the composition of the gut microbiota to health and disease. Recently, gut microbiota have also been linked to the presence of a gut-brain connection in disease and health. The gut-brain axis is described as the communication system between the gut and the brain. Evidence has shown that this connection has a presence in not only neurodevelopmental diseases, but diseases that are not part of the central nervous system as well. Various studies have been conducted which investigate the role of the gut-brain connection in autism spectrum disorder, which is categorized as a disease of the central nervous system; as well as obesity, which is not considered to be a disease of the central nervous system. The promising results from these studies have shown that, with future research, treatment options targeting the gut-brain connection may be another potential option to utilize. In this review paper, the connection between the gut and the brain, along with how the gut microbiota influence it and how it plays a role in disease and health is explained through an exploration and review of the literature.

**Motivation for Participating:** Requirement for SCI 420

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**Rachael Moyles (Panel 3)**

**Title:** The effects of select pharmaceutical chemicals on crayfish behavior and biological processes

**Faculty Sponsor:** Professor Kelly Hutchinson, Science

**Abstract:** Within the last few decades, there has been an increase in the concentration of pharmaceuticals consumed by the population, and thus, an increase in the excretion of these compounds. Often these emerging contaminants are found in effluent from wastewater treatment plants and over 600 different pharmaceuticals have been detected in several aquatic systems including surface water, groundwater, and even drinking water (Arnold et al 2014; Segura et al 2009). Pharmaceuticals such as NSAIDs (non-steroidal anti-inflammatory drugs), anti-depressants (serotonin, etc.), and birth controls (estrogen mimics), have been found to influence both behavior and biological processes of freshwater invertebrates (Neal and More 2016; Fossat et al 2014; Rodriguez et al 2007). Crayfish, members of the crustacean subphylum, are particularly sensitive to pollution, making them important bioindicators of overall ecosystem health (Neal and Moore 2016). This review paper will discuss these compounds, how they interact with crayfish populations, and what this means on a larger scale.

**Motivation for Participating:** Requirement for SCI 420

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**Amelia Paas, Noelle Hensler, Toni Battista, Emmarae Stein (Panel 2)**

**Title:** An Exploration of Irish Literature and Culture

**Faculty Sponsor:** Professor Ed Wiltse, English and Communication

**Abstract:** A panel that will focus on four distinct works of Irish Literature through a variety of critical lenses. The following students will be presenting papers that explore works by an array of authors across medium and genre: Amelia Paas will examine the role that perspective plays in Emma Donoghue's novel, *Room*. In disjunction with Lucia Lorenzi's 2016 critique, Amelia argues that Donoghue provides an objective lens that both shields the reader from the blatant traumatic experiences in the novel, while also allowing them to have an investigative experience. Noelle Hensler will focus on the relation language has to colonization. She argues that Brian Friel's play, *Translations*, demonstrates that the forced introduction of a new language has complex consequences that may include new opportunities as well as a loss of identity. Toni Battista will argue that Heather Louise Eaton artfully deconstructs Yeats' poem, "Among School Children," but does not give proper merit to his use of allusion. She believes that Yeats employs allusion in order to understand that the process of aging should be the focal point of the poem, as opposed to the construction of the poem itself. Finally, Emmarae Stein will focus on class anxiety in James Joyce's short story "The Dead" through an analysis of Gabriel Conroy's choices and actions. By following the protagonist as he attends a party at his aunt's home, the narrator explains the role of class anxiety in Ireland through notions such as materialism, the often underplayed role of money, and the intersection of wealth and revolutionary struggle.

**Motivation for Participating:** Requirement for ENGL.330: Irish Literature and Culture

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**Bridget Petracci (Panel 1)**

**Title:** Ana Maria Matute's *La Rama Seca* Analysis

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** This presentation will be an analysis of a Spanish childhood fable written by, Ana Maria Matute named "La Rama Seca" or "The Dry Stick" in English. Using background knowledge of Matute's childhood medical condition, as well as her cultural surroundings of the Spanish Civil War, we will uncover the symbolism hidden inside this seemingly innocent childhood fable.

**Motivation for Participating:** CARS is a suggestion for my SPN 400 class.

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**Sarah M Rosero (Panel 6)**

**Title:** Rigoberta Menchú: The Idea of Truth

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** I will be exploring the story of the activist and indigenous woman, Rigberta Menchú. I will be reading through some of her works, specifically her book "I, Rigoberta Menchú" and exploring the stories that she tells through the words of Elizabeth Burgos. I will also be exploring the works of David Stoll and John Beverly as they explain the idea of "Testimonio" and how it is a form a literature and a way to tell stories of those who cannot speak for themselves. They express the idea of what ones own truth is regarding their own experiences and how they choose to tell the story. I chose this topic because Menchú has such a fascinating story that needs to be told, but also the ways in which her story was told are unique.

**Motivation for Participating:** Requirement for Senior Seminar

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**Jeremy Saunders (Panel 7)**

**Title:** Methods of Political Protest: Urban Civic Resistance in Ukrainian Euromaidan and American Occupy Wall Street

**Faculty Sponsor:** Professor Olena Prokopovych, Political Science

**Abstract:** In this study I analyzed the effectiveness of urban civic resistance at producing national policy change. I argue that urban civic resistance does have the potential to produce substantial policy change under specific sociopolitical conditions including: the rate of mobilization, use of social media and other information technologies, commitment to nonviolence, group cohesion, and the political climate in which these protests occur. Using the Ukrainian Euromaidan and the American Occupy Wall Street movement I present two structurally similar protest movements that concluded with vastly different results—Euromaidan acting as an example of a successful UCR campaign and Occupy Wall Street movement as an unsuccessful campaign. As governments around the world continue to adapt to civil unrest, it is important that those who want to fight back know which methods of political resistance are effective in an age of post-globalization.

**Motivation for Participating:** To present my research in front of professionals in the field of political science

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## Paper Presentations

### **Kayla Sinclair (Panel 5)**

**Title:** The Neuroprotective Effects of Curcumin

**Faculty Sponsor:** Professor Kelly Hutchinson, Science

**Abstract:** Neurodegenerative diseases affect millions of people globally. In search for a cure for these diseases, some researchers are looking towards natural antioxidants for answers. One antioxidant under investigation is curcumin, the main coloring agent in turmeric. Curcumin has been subject to various studies to determine if the compound has any effects on the pathology of diseases such as Alzheimer's, Parkinson's, Huntington's, and ALS. Curcumin's poor bioavailability raises concerns over its therapeutic potential, but the abundance of experimental data showing that curcumin has neuroprotective features in neurodegenerative disease models suggests that usage of the compound is more than just pseudoscience.

**Motivation for Participating:** Requirement for SCI 420

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### **Jaxon Smith (Panel 1)**

**Title:** La loca de Gandoca: How can fiction alter reality and legislation?

**Faculty Sponsor:** Professor Hilda Chacón, Spanish

**Abstract:** I am writing 20 page paper about how the fiction story of a Costa Rican woman and her fight for environmental issues helped change legislation about the environment in Costa Rica.

**Motivation for Participating:** Requirement for Spanish Senior Seminar

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### **Zachary Titus (Panel 3)**

**Title:** Effects of Treating Crohn's Disease using Infliximab

**Faculty Sponsor:** Professor Kelly Hutchinson, Science

**Abstract:** Crohn's disease is an autoimmune disease which goes through a Th1 pathway creating inflammation in the gastrointestinal tract. A particular treatment option for inducing and maintaining Crohn's disease remission is using infliximab; a chimeric monoclonal antibody that is specific to binding TNF- $\alpha$ . TNF- $\alpha$  is a cytokine that plays a key role in the Th1 pathway and as infliximab binds to soluble and transmembrane forms of TNF- $\alpha$ , it can disrupt the inflammatory response. Infliximab was the first monoclonal antibody used in humans, paving the way for monoclonal antibody use in several autoimmune diseases. It is proven to induce and maintain remission in both

pediatric and adult Crohn's disease patients. Drawbacks to infliximab include a suboptimal long term outlook, its expense, and lower effectiveness in patients diagnosed with Crohn's disease over a year before its induction. This review examines the etiology of Crohn's disease, the development and method of action of infliximab, and factors associated with a loss of response to infliximab. This provides clinicians and patients more information about the overall effectiveness of infliximab, and whether it may be a recommended form of treatment.

**Motivation for Participating:** Requirement for SCI 420

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**Laura Tuttle (Panel 7)**

**Title:** Mary's Place Refugee Outreach - Internship Experience and Program Evaluation

**Faculty Sponsor:** Professors Maher and Walker, Public Health

**Abstract:** Mary's Place Refugee Outreach was the site of my Public Health internship; my role at the center was as a Case Management Intern in which I assisted with various Human Resource activities and acquisition of services. My CARS project focuses on my experience at the refugee center as well as reflection upon the program planning and evaluation.

**Motivation for Participating:** Requirement for PBH480

**Experiential Learning Pathway:** Service Learning, Internships, Field & Clinical Experience

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## ***Performances***

### **Bonnie & Clyde**

#### **The Company of Bonnie & Clyde**

**Faculty Sponsor:** Professor Corinne Aquilina, Theatre and Dance

**Abstract:** We will be performing a snippet of the upcoming spring production of the musical Bonnie & Clyde, directed by guest artist Aaron Galligan-Stierle. In the midst of the Great Depression, small-town nobodies Bonnie Parker and Clyde Barrow spark a bold and reckless romance – driven by a mutual desire for fame and fortune. As their law-breaking adventure spirals in unexpected directions, their inevitable fate grows closer. Their rise to outlaw infamy unfolds in the Tony-nominated musical, Bonnie & Clyde.

**Motivation for Participating:** We would like to use this opportunity to promote our production and encourage the campus to come see it.

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### **Giving Language a Hand: Cued Song Performance**

**CSD 201 Phonetics Class Members:** Simon Aldrich (LifePrep), Camryn Brush, Kendra Burt, Rita Cancellieri, Katy Carges, Caroline Diorio, Annalese Dutch, Rebekah Ebersole, Amanda Fox, Madeline Gelder, Heather Hoyt, Ashley Jones, Kristina Marolf, Madison McIntee, Ashley Meagher, Lianne Moscato, Alix Novack, Olivia Quick, Jess Riley (LifePrep Mentor), Keeley Rose, Natalie Salewski, Ceyda Serbetci

**Guest Cuers:** Alex Aquino (LifePrep), Dana Dale, Lauren Guilfoil, Keelin Paquette, Rachel Vandervort

**Faculty Sponsor:** Professors Cathy Rasmussen and Megan Tobin, CSD

**Abstract:** In CSD 201 Phonetics, we learn to use Cued Speech, a tool for conveying the sounds of spoken language visually. Cued Speech was developed for children who are deaf or hard of hearing, but is now used for a variety of speech-language therapy applications. we'll demonstrate our cueing skills by performing a song we've chosen to learn to cue together.

**Motivation for Participating:** Requirement for CSD 201 Phonetics

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## **Aperture**

**Rachel Daly, Tazdyn Francisco, Caroline Sherwood, Marc Gabriel, Sean Saville**

**Faculty Sponsor:** Professor Heather Roffe, Theatre and Dance

**Abstract:** For this dance we were inspired by the artist Henry Moore and his sculptures, specifically the existence of negative space in all of his work. We did this by studying a handful of his sculptures and even creating a few of our own mini sculptures to inspire us. We did this to explore the ways negative spaces exist in social contexts and relationships between people, and the shrinking of negative space as a symbol of bringing people together. We are bringing two art forms together by having live musicians improv while we dance.

**Motivation for Participating:** To explore art through dance and music

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## **“Passage”**

**Caroline Dennis**

**Faculty Sponsor:** Professor Mariko Yamada, Theatre and Dance

**Abstract:** "Passage" is a dance piece I created in the fall of 2018 for the choreography 2 piece. The piece includes five dancers and explores the human experience through dynamic movement and physical relationships. I created this piece to communicate themes of support, persistence and kinesthetic empathy.

**Motivation for Participating:** Requirement for Choreography 2

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## **Musicoterapia in Italia: Transcending Cultural Barriers Through Music**

**Juliana Joyce**

**Faculty Sponsor:** Professor Laurie Keough, Music Therapy

**Abstract:** A year ago, I studied abroad in Pescara, Italy for a full semester. I took this opportunity because I had the opportunity to complete clinical work in Italy. I worked with two geriatric clients with Alzheimer's disease, as well as an Italian music therapy student. This experience transformed my perspective on working in a culture and language that are unfamiliar to me. Although I had about a year and a half of Italian language and cultural studies, I learned that experiencing these things first hand can challenge and empower us in ways that are unimaginable. When I could not

## Performances

communicate verbally, I relied on the music to make meaningful connections with my clients. This has transformed how I practice music therapy; I now enter my sessions prepared to make musical adjustments in the moment to accommodate to the most pressing needs of my clients. I completed this life-changing clinical experiences through the support of the Nazareth music therapy department, the Pescara Conservatorio degli Studenti staff, and my wonderful co-therapist, Francesca. What drove me to complete this cross-cultural work was my passion for uncovering my heritage, a desire to learn the language of my ancestors, and my love for music therapy.

**Motivation for Participating:** I want to advocate for the importance of cross-cultural experiences for students.

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## ***Poster Presentations***

**Cassandra Ackerson, Sadiqa Pardais (#1)**

**Title:** X-Culture Virtual Team: Unicheck Expanding Markets to Australia and China

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, the team of Cassandra Ackerson and Sadiqa Pardais will discuss their intensive global virtual team project on Unicheck. This company provides a user- friendly plagiarism checking software designed with education aim in mind. Our objective was to identify a new promising market for the company to enter into. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT 430 Business Management Senior Seminar

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**Kelsi Barnholt, Hailey Holcomb (#2G)**

**Title:** International Service Learning and Development of Cultural Competence: Impact on Students in Health Care Fields

**Faculty Sponsor:** Professor Elizabeth Hebert, Occupational Therapy

**Abstract:** As a way to examine the impact of service learning, we completed a qualitative study where Nazareth college students agreed to a one to two hour interview to discuss their opinions and share their personal experiences from their international service trip. Information from each individual was gathered and collected to investigate the effect service learning has on overall cultural competence in students within the healthcare profession.

**Motivation for Participating:** Requirement for OTR514: Research II

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**Emma Beach (#3)**

**Title:** If Labels Matter: How Do Mental Illness Labels Influence Emotional Reactions in the Public?

**Faculty Sponsor:** Professor Lindsey LaPlant, Psychology

## Poster Presentations

**Abstract:** This study examined how labeling an individual with a mental illness impacted the participants' emotional responses towards the individual. Participants were either not told or told the individual was diagnosed with Major Depressive Disorder, Generalized Anxiety Disorder, or Dissociative Identity Disorder. The results indicated that the gender of the participant and the label of the mental illness told, do have a significant impact on the emotional reaction towards the labeled individual.

**Motivation for Participating:** I wish to share my research findings with the general public. This will also give me good experience presenting research in a formal setting.

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### **Nicholas Beaver (#4)**

**Title:** Japanese Nationalism: The Rise of Loyalism and its Impacts on Sino-Nippon Relations

**Faculty Sponsor:** Professor Olena Prokopovych, Political Science

**Abstract:** This is the research project that is for PSC 440-30. It is a 18 page paper that outlines the recent influx of radical extreme nationalism in the nation of Japan, through a historical and multidisciplinary lens, using geopolitical and youth cultural case studies. It will cover not only well documented head scholars in this field of study, but also my personal educated predictions on what this current state of political turmoil will result in. I achieved this by doing extensive research not only on current political movements in Japanese society, but also current viewpoints on Japanese culture from a Chinese perspective, and an historical look at the relations between the nations as well. I have been wanting to work on a project like this one for as long I have been a student here at Nazareth, it is a passion of mine. I am thrilled to have the opportunity to finally showcase my thoughts on the subject.

**Motivation for Participating:** I am passionate about my research topic.

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### **Gabrielle Bell, Roberto Jaquez, Sarah Danzinger (#5)**

**Title:** Synthesis of Methylammonium Lead Iodide Perovskites

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry and Biochemistry

**Abstract:** Synthesized methylammonium lead iodide using autoclave and a rotary evaporator. Research its application towards solar cells.

**Motivation for Participating:** Extra Credit

**Experiential Learning Pathway:** Field & Clinical Experience

**John Beyer (#6)**

**Title:** Soundscapes of Success: The Effect of White Noise Stimulation on Cognitive Recall

**Faculty Sponsor:** Professor Lindsey LaPlant, Psychology

**Abstract:** I am showcasing my final project from my statistics and research methods II class. In addition to presenting my findings within the class, I also recently had the opportunity to present these findings at the 2019 Eastern Psychological Conference in New York City. In my study I hypothesized that by adding a constant, neutral white noise stimulus during encoding, retrieval of material would become more accurate. fifteen individuals were equally and randomly distributed before being presented with a memorization task in an environment saturated with low-volume white noise, high-volume white noise or a room with no added white noise. Each participant was given a list of 20 retention term to memorize, a mathematics distractor task, and were then asked to recall as many words as they could within given time limits. Participant's score on the retention test was examined as a factor in determining how well an individual could correctly recall information. The study was done to complete a requirement of a class, however, the experiment was also conducted with the purpose of increasing the ease by which lists of serial information may be memorized.

**Motivation for Participating:** My faculty sponsor believed that it would be beneficial to present my findings at this year's CARS, as last year I still had yet to begin the data collection for this project.

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**Alexis Blydenburgh, Kalista Calkins, Matthew Corona, Meagan Maher, Julia Penoyer (#7)**

**Title:** Facilitating Conversational English with Ethiopian Students with a Focus on Cultural Sensitivity

**Faculty Sponsor:** Professor Heather Coles, Communication Sciences and Disorders

**Abstract:** Students from Nazareth College traveled to Bahir Dar, Ethiopia as part of a service learning trip with a focus on deaf education and empowerment as well as teaching English as a Foreign Language (EFL). Students teaching EFL worked with hundreds of Ethiopian students in elementary through high school on three different school campuses. Each grade level contained an average of fifty to eighty students of varying ages and abilities. The goal of this service learning trip was to create activities that allowed students to engage in conversational English with native speakers and to collaborate with classroom teachers to discuss pedagogy and classroom strategies for teaching. Teaching methods used include but are not limited to games, songs, role-

## Poster Presentations

playing conversations, and picture walks. It was discovered that students in Ethiopia do not engage in hands-on activities or small group work as often as students in the United States. Nazareth students teaching EFL developed skills in adaptability, scaffolding, differentiated instruction, and cultural competence and sensitivity.

**Motivation for Participating:** Service Learning Trip

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### **Justin Boyer (#8)**

**Title:** What Makes a Square Magical?

**Faculty Sponsor:** Professor Matthew Koetz, Mathematics

**Abstract:** I found different patterns and schemes in squares made up of smaller squares. Magic squares are when the rows, columns, and diagonals' sum equal each other. Starting at 3X3 and going up to  $n \times n$  as well as general step by steps on creating a square.

**Motivation for Participating:** Requirement for Mathematics Research

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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### **Jason Buechel (#9)**

**Title:** The Angel Problem

**Faculty Sponsor:** Professor Matthew Koetz, Mathematics

**Abstract:** I researched the 'Angel Problem', which was originally proposed by John H. Conway. On an infinite board, the Angel can travel to adjacent tiles, up to 1000 tiles per move. Following each move the Angel makes, the 'devil' will remove any tile from the infinite board. The question follows as such: Is it possible for the devil to trap the angel, or for the angel to evade the devil infinitely? I conducted my research by graphing the angel's possible paths and simultaneously attempting to select optimum tiles for the devil to steal away. I chose this topic because of my interest in John Conway's research. This project was also a requirement for my mathematical research class.

**Motivation for Participating:** Requirement for Mathematics Research

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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**Jaden Buono, Cody VanKouwenberg, Thomas McCormick, Benjamin Annal, Serena Henny (#10)**

**Title:** X-Culture Global Virtual Team Experience: Unichex for the Chinese, Indian, United Kingdom, and United States Market

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In the X-Culture Global Virtual Team Experience, we all got the chance to work with other students from around the world. Within our international groups we chose a company (Unichex for us) to represent and assist. Unichex required us to come up with a market strategy for a country and, in our groups, write out a business plan for entering a specific market. The businesses will then choose the top business plans submitted, possibly choosing to follow that plan or consider that market. We worked on this X-Culture experience to gain the knowledge and understanding on how real business works and how they research a potential market. We also got the chance to work with team members from all over the world, learning about their cultures and values, and developing a better understanding of team performance skills.

**Motivation for Participating:** Requirement for MGT 430-01 Business Management Senior Sem

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**Benjamin Butler, Meredith Rasey, Tenaya Chaney (#11)**

**Title:** The deuterated reduction of Bilirubin to Stercobilin; creating a potential biomarker for Autism

**Faculty Sponsor:** Professor Amber Charlebois, Chemistry and Biochemistry

**Abstract:** Autism Spectrum Disorders (ASD) are described in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM V) as being characterized by impaired social ability, abnormal repetitive behaviors, and hyper/hypo sensitivity to different environmental stimuli. Presently, the only means for diagnosing autism is through subjective interpretation of the DSM V. L-urobilin (more commonly known as L-stercobilin) has been shown to be depleted in urine samples of ASD subjects in comparison to control samples from subjects without ASD. Therefore, an isotopomer of stercobilin could provide a more objective means for diagnosing ASD, allowing stercobilin to be a potential biomarker for ASD. This research focuses on synthesizing isotopically labelled stercobilin by reduction of bilirubin (a metabolite of heme) under four different reaction conditions. These conditions involve the alteration of hydrogen gas for deuterium gas, and glacial acetic acid for deuterated glacial acetic acid. Each product of the various combinations of the reagent and solvent should theoretically have different molecular masses, meaning they can be distinguished using mass spectroscopy. The products of each reaction were analyzed using IR, NMR, and MS to

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investigate the mechanism of reaction and to determine the most effective and reproducible means for synthesizing stercobilin isotopomers.

**Motivation for Participating:** Requirement for SCI250-04: Introduction to Scientific Research

**Experiential Learning Pathway:** Field & Clinical Experience

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**Lily Caron, Kennedie Brown, Amy Demor, Hannah Meli (#12)**

**Title:** Use of Multisensory Room to Decrease Stress in a College Community

**Faculty Sponsor:** Professor Mary Dahl Maher, Nursing

**Abstract:** An evidence-based review of literature was done to understand the history of multi-sensory rooms. For the purpose of this project a multi-sensory room was constructed using a beach theme to help promote relaxation among the college community during midterm examination week and during the final month of the spring semester. A pre and post experience instrument was administered to measure the effect of participating in a beach themed relaxation space. The purpose is to inaugurate the use of multi sensory rooms at Nazareth College.

**Motivation for Participating:** Requirement for PBH 483

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**Lauren Carr, Gabriela Mirasola, Keelin Paquette, Emma Cuffney (#13)**

**Title:** STEM and Language Learning for Young Children: A Service Learning Experience

**Faculty Sponsor:** Professor Lisa Hiley, CSD

**Abstract:** Communication Sciences and Disorders majors are introduced to typical development of communication, speech and language from infancy through school-age in CSD132. As an alternative to the final project, a service-learning experience was offered at the Frederick Douglass Library in the City of Rochester. Children from different elementary and middle schools throughout the city opt to go to the library after school hours to either do homework, socialize, or relax after a long day. On Fridays, Dr Hiley and a group of students travel to Douglass to partner with the librarian and WXXI in order to engage with the children using STEM-related crafts and projects that require them to use their creativity and school experiences. These activities foster the growth of teamwork, critical thinking, and problem solving skills. This service-learning experience gave undergraduates in the CSD program the opportunity to observe the children's interact with others and their interpretation of the STEM activities. Their observations can lead them to make conclusions about children's language and cognitive

development. Partnering with WXXI allowed undergraduate students to draw connections between their experience and the material covered in class. This partnership serves as valuable preparation for the undergraduate's future work as speech-language pathologists.

**Motivation for Participating:** To collaborate on a presentation about how we're using service learning to extend our understanding of children's language development.

**Experiential Learning Pathway:** Service Learning

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**Sarah Casella, Bailey Colmaio, Michael Cuciti, Kaitlyn Pickering (#14G)**

**Title:** Burnout in Physical Therapists

**Faculty Sponsor:** Professor Staffan Elgelid, Physical Therapy

**Abstract:** Burnout, a phenomenon which includes feelings of depersonalization, lack of a sense of personal achievement, and emotional exhaustion, has been identified and thoroughly studied in many healthcare professions, including doctors, nurses, and social workers; and its presence has been linked to worse clinical outcomes for their patients. Though burnout is an important topic, it has not yet been studied in physical therapists. It is important to know if burnout exists in this profession so it can be addressed in order to provide excellence in patient care and keep medical professionals emotionally healthy. We conducted a survey of 285 physical therapists across the United States to determine whether physical therapists experience burnout. The survey included a standardized assessment tool, the Maslach Burnout Inventory-Human Services Survey, along with several demographic questions as well as questions about clinical experience and subjective experiences of burnout. After statistical analysis, results showed that a large number of physical therapists do indeed experience burnout, that burnout is linked to several aspects of work, and that physical therapists report burnout negatively affects their care.

**Motivation for Participating:** Requirement for PTR 761

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**Olivia Chamberlain (#15)**

**Title:** How Facial Orientation Impacts Facial Recognition Times in Matching Activities

**Faculty Sponsor:** Professor Lindsey E. LaPlant, Psychology

**Abstract:** The purpose of the current study is to assess the importance of eyes in facial recognition utilizing the FIE. It was hypothesized that upside-down faces would take longer to match than right side up faces. It was also hypothesized that right side up faces with inverted eyes would take the longest to match compared to the other groups.

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The independent variables were faces and consisted of three levels. Level 1 was the control that did not use any facial manipulations. Level 2 consisted of faces with no manipulations turned upside down. Level 3 consisted of manipulated faces, faces were upright, but the eyes were inverted. The dependent variable was time, which was operationally defined by how many seconds it took to complete the matching activity. Participants were selected using an undergraduate research participant pool from a small liberal arts college. Participants consisted of seven males and 23 females between the ages of 18 and 25 ( $M = 22.34$ ,  $SD = 3.863$ ). Participation in the study was voluntary and extra credit was given as an incentive. Two participants' scores were removed due to being outliers. Participants were given an informed consent form to read, sign and date. To determine which level the participants were in, the first ten to sign up were placed in the first level,  $n_1 = 10$  (control), the next ten were placed in second level,  $n_2 = 10$  (upside down faces) and the last ten to sign up were placed in the third level,  $n_3 = 10$  (normal faces with upside down eyes). To begin, participants were told that there were nine cards with faces on them and only one match which they were instructed to find. The cards were covered to avoid premature exposure and were arranged in the exact same order for all experiments. Participants were required to keep their eyes closed as the cards were being revealed. When the researcher said "begin" the participants' time would start, and they would open their eyes and look for the match. Participants signaled that they had made the match by pointing to the cards that made the correct match, ending their time. If the match was incorrect their time would continue until the correct match was made. Upon completion of the task, participants were debriefed and thanked for their time. Any questions the participants had were answered to the best of the researcher's knowledge.

**Motivation for Participating:** Faculty recommendation

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### **Kristina Chatt (#16)**

**Title:** Teamwork Makes the Dream Work: Exploring Interprofessional Education Programs Among Healthcare Students

**Faculty Sponsor:** Professor Matthew Schoell, Chemistry and Biochemistry

**Abstract:** In today's complex healthcare environment, the need for teamwork and communication among healthcare professionals has become paramount. One way to ensure effective collaboration and team-working skills among healthcare professionals is to begin at the educational level. Implementing interprofessional education programs at the undergraduate level is key in improving patient care, as well as reducing the number of medical errors and preventable hospital deaths. Interprofessional education may also help to bridge the communication and understanding gap that exists between laboratory professionals and other healthcare professionals such as nurses and/or physicians, bringing laboratory professionals into key patient care conversations. Considering all of the benefits of interprofessional education, steps should be taken by more universities to implement interprofessional education programs between students



in healthcare related majors, including but not limited to: clinical laboratory science, nursing, and pre-med.

**Motivation for Participating:** Requirement for CLS 450-01 (CLS Capstone)

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**Abigail Clark (#17)**

**Title:** Evaluation of Foodlink

**Faculty Sponsor:** Professor Mary Walker, Public Health

**Abstract:** Using both the casual theory and logic model to look at both the history and successfulness of programs within the organization of Foodlink. Through interning at Foodlink, I have witnessed programs that have appeared to be successful and programs that appear to have room for improvement. As nutrition is my passion, this project could potentially benefit the organization and the community of Rochester, NY.

**Motivation for Participating:** Senior Capstone PBH480-01

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**Kaderia Cox (#18)**

**Title:** “A Public Health Evaluation of Cameron St Ministers”

**Faculty Sponsor:** Professor Mary Maher, Nursing

**Abstract:** 1. simplify the food pantry process, decrease food waste, and improve guest satisfaction. 2. created a brief survey for the guest. 3. The system in placed was unorganized, and confusing. Also, to eliminate food being wasted, having a better understanding of the customers needs.

**Motivation for Participating:** Requirement for PBH 480

**Experiential Learning Pathway:** Internships

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**Kasandra Curtis, Dominic Cicchetti (#19)**

**Title:** X-Culture Global Virtual Team Experience: Ultraspecialisti Market Analysis for the United States, Brazilian & Singapore

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** Over the first nine weeks of the semester each student in our class was paired with 3-4 people from around the world to work together and formulate a business

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proposal for the telemedicine company Ultraspecialisti. Throughout these nine weeks we were tasked with researching the different business aspects that the company would need to know when expanding into these new markets around the world. We accomplished this task by dividing up the world for the different blocks and then communicating with one another as to what needed to be done and on what timeline.

**Motivation for Participating:** Requirement for MGT 430: Senior Seminar

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**Jacob Cuyler, Zach Titus, Chris Jones, Kyle Bronson (#20)**

**Title:** Synthesis and Applications of Graphene Quantum Dots

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry

**Abstract:** Herbicide contamination of the environment remains a constant issue that requires remediation with a low cost, green friendly method. One such method reported in research is the synthesis of graphene quantum dots (GDQs) using organic precursors that have a high sorption capability. GDQs can be synthesized through microwave reactions making it a quick procedure where there is a spontaneous formation of porous structure. With the formation of a flexible gel-like structure, the GDQs are useful in absorption of herbicides in nonpolar organic solvents, but they can also be analyzed in their liquid form in polar solvents to characterize the success of herbicide removal. This research works to affirm previous findings of the microwave synthesis of GDQs as well as their ability to be a green method or herbicide removal.

**Motivation for Participating:** Requirement for CHM 360

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**Thomas V. Cuyler Jr., Anfernee Daily (#21)**

**Title:** Did It Get the Job Done?

**Faculty Sponsor:** Professor Hutchinson, Science

**Abstract:** There is a large array of bathroom cleaners on the market with a wide range of prices. We investigated a variety of different bathroom cleaners from brand name to generic to organic in order to determine the most effective bathroom cleaners and if the most expensive cleaners are really the most effective cleaners. In triplicate, we created agar petri dishes, spread bacteria evenly across the plate, and then added a drop of bathroom cleaner into the center. We then monitored the rate of growth of the bacteria over the course of several days and measured the diameter around the drop of cleaner to evaluate the effectiveness of each cleaner.

**Motivation for Participating:** Requirement for Science 101

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**Sarah Danzinger, Shannon Dablock (#22)**

**Title:** Number Necklaces

**Faculty Sponsor:** Professor Matt Koetz, Mathematics

**Abstract:** We looked at the different patterns of number necklaces, their maximum lengths, and the ratio of length divided by  $n$ . This is an unsolved problem in mathematics, which sparked our interest into researching the topic.

**Motivation for Participating:** Requirement for MTH49001

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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**Anna Davis, Shane Rogers, Josh Brown (#23)**

**Title:** Dyeing Naturally

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** In our project we investigated the effectiveness of natural dyes made from fruits and vegetables compared to traditional chemical dyes found in clothing. We first created different colored dyes out of coffee, carrots, beets, raspberries, blueberries, and strawberries and then dyed white cotton fabric using these dyes. To determine the effectiveness, we evaluated how vibrant each color was after dyeing as well as how well the dye remained following washing the fabric using laundry detergent.

**Motivation for Participating:** Requirement for SCI.Q10101-19SP Integrated Science Inquiry - 19SP

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**Erin DeHaven, Anna Goings (#24)**

**Title:** LGBTQIA+ Inclusivity

**Faculty Sponsor:** Professors Susan Mack and Dawn Vogler-Elias, Communication Sciences & Disorders

**Abstract:** We developed an individualized presentation for the Communication Sciences & Disorders Department to discuss inclusive language to utilize, as well as exclusive language to avoid, in the workplace. Additionally, we provided the department with a variety of resources they could use to further their understanding of the LGBTQIA+ Community. First, we met with specific staff members to discuss how they felt this workshop would be received. After being met with enthusiasm and support, we worked cooperatively with the heads of the department to schedule a time for the

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presentation, distribute resources and surveys, and communicate expectations. We hope to work towards making professional and academic settings more inclusive for the LGBTQIA+ Community.

**Motivation for Participating:** We are motivated to continue our work towards advocacy and inclusion and would like to see this project grow.

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### **Erich D'Eredita (#25)**

**Title:** New techniques for demonstrating renewable energies in a classroom setting

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry

**Abstract:** The latest report from the United Nations stated Earth has 12 years to reduce global carbon emissions by half in order to sustain life. This implies an immediate need for new teaching techniques of “green” renewable energies such as solar cells and biofuels. It is crucial that education is advanced in order to fulfill adolescents’ needs to understand the topic at an early age and start implementing strategies as they grow. They also need to learn how to share this knowledge with their peers. This research project focused on finding new ways to demonstrate renewable energies in a classroom setting, regardless of available scientific equipment. For school-age adolescents, it is paramount that scientific information is explained at a level appropriate for them in order to capture their interest and to tailor the material for their needs. Since many topics involve areas of advanced chemistry, it was important to develop real-life demonstrations to aid in visual learning and simplifying those ideas which may be difficult for young minds to understand.

**Motivation for Participating:** Requirement for BIO 453

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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### **Erich D'Eredita (#26)**

**Title:** Calorimetric Analysis of Select Organs in the virile crayfish, *Orconectes virilis*

**Faculty Sponsor:** Professor Brian W. Witz, Biology

**Abstract:** We used computerized calorimetry to measure the energy content of several organs of the virile crayfish, collected from several sampling sites on Honeoye Creek.

**Motivation for Participating:** Requirement for SCI 450

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**Amanda Dixon, Clare Brownell (#27)**

**Title:** Fruit and Veggie Power

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** There are many fruits and vegetables that people do not consume because of mold, expiration dates, or rejection by grocery stores. Given the amount of waste from these foods, we wanted to investigate if fruits and vegetables could be used as a renewable energy source. In our experiment, we tested the amount of power that different fruits and vegetables are able to produce. Using the amount of power produced, we then determined how much of each fruit and vegetable it would take to power a light bulb.

**Motivation for Participating:** Requirement for Integrated Science Inquiry and Lab

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**Jacob Dougall, Frank Gaffney, Timothy Vinton (#28)**

**Title:** Synthesis of CdSe Quantum Dots for Solar Cells

**Faculty Sponsor:** Professor Lampa-Pastirk, Chemistry and Biochemistry

**Abstract:** Produced a high yield quality of CdSe Quantum Dots with a clean and clear spectral output. We prepared CdSe quantum dots, TiO<sub>2</sub> thin films, fabricated QDs/TiO<sub>2</sub> solar cells and then characterized CdSe QDs with the calculation of size to find the band gap. We then used the characterization of the quantum dots to determine the efficiency of use in photovoltaic material.

**Motivation for Participating:** To present work done in the Physical Chemistry Laboratory

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**Jake Dougall, Lan Nguyen, Emily Welch (#29)**

**Title:** Protein Structures Analysis Using Reversed- Phased HPLC Chromatography

**Faculty Sponsor:** Professor Amber Flynn Charlebois, Chemistry

**Abstract:** Trypsin inhibitor is a protein that inhibits trypsin- a serine protease involved in breaking down proteins. Specifically, by competing with and preventing other proteins from binding to the active site of trypsin, trypsin inhibitor hinders the catalytic and consequently, the digestion activity of trypsin. This protein of 181 residues is comprised of one peptide chain interconnected by two disulfide bonds. With the use of the reversed- phase HPLC chromatography, the native, denatured, and reduced conformations of trypsin inhibitor will be analyzed. Particularly, being folded with a more

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polar surface, the native species has the lowest retention time using the non-polar C-18 column. The denatured protein, being partially unfolded, will be more non-polar on the surface and should have longer retention time. Finally, the protein that is reduced by breaking the disulfide bonds, it will be more completely unfolded and more non-polar, and should have the longest retention time. Once complete and verified, this experiment will be turned into a laboratory that will allow students enrolled in a typical biochemistry laboratory course to gain an experience and working knowledge of protein structures, disulfide bond reduction, and HPLC simultaneously.

**Motivation for Participating:** I am personally interested in doing scientific research.

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**Samantha Eckhardt, Sophie Valenti, Caryn Salce, Shelby Peck (#30G)**

**Title:** Perceived Stress in Undergraduate Occupational Therapy Students

**Faculty Sponsor:** Professor Laura Poleshuck, Occupational Therapy

**Abstract:** Stress is a common topic of discussion among undergraduate students. The purpose of this study is to determine which items are most frequently identified by undergraduate occupational therapy (OT) students as current causes of stress. Increased stress levels can influence students' academic performance, quality of life, mental health, and development of therapeutic relationships. Occupational therapy students from 16 schools in the northeast United States were asked to complete a Qualtrics survey regarding the stressors they experienced over the past month. The results showed that the areas causing the highest level of perceived stress were personal grade expectations and academic factors such as taking exams and time management. On average, social, cultural, spiritual, and safety factors were reported to cause mild stress or no stress at all. These findings are consistent with the literature regarding stressors in health and human services students.

**Motivation for Participating:** Encouraged by research advisor

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**Jacqueline Ellis (#31)**

**Title:** Religion, State, and Independence: Kyivan Prince Volodymyr (956-1015), Russian Orthodoxy, and the Emergence of an Autocephalous Ukrainian Church

**Faculty Sponsor:** Professor Olena Prokopovych, Political Science

**Abstract:** Recently, the Ecumenical Patriarchate of Constantinople gave the status of autocephaly (independence) to the Ukrainian Orthodox Church. My study on the history of Ukraine and Russia will focus on how their past affects the present with a focus on the church. In order to reach my conclusion, I will be looking at the time period of Kyivan

Rus' and the fall of Kyivan Rus' to determine how these time periods affected the church and why Russia does not want Ukraine to be independent.

**Motivation for Participating:** Dr. Prokopovych encouraged our class to present on our research topics and I am very interested on the topic myself as it is an example of how history never disappears.

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**Megan Fenn, Elayna Johnson, Rachel NaDell (#32G)**

**Title:** Effectiveness of a Mirror Therapy Home Program for Individuals with Hemiplegia due to a Stroke

**Faculty Sponsor:** Professor Julie Kunisch, Occupational Therapy

**Abstract:** Strokes are the leading cause of serious, long-term disability often resulting in weakness or paralysis on one side of the body which impacts an individual's upper extremity function. After a stroke, individuals may be referred to occupational therapy, where they can work to improve their upper extremity function to better participate in meaningful occupations. Mirror therapy is an inexpensive, patient-directed treatment, in which the patient observes the movement of the unaffected limb in a mirror and is, in turn, given the impression the affected limb is moving. The purpose of this research was to determine appropriate dosage of mirror therapy as a home program to improve upper extremity function following stroke. This was an ABA research design in which participants completed mirror therapy 2 times per day for 15 minutes in their homes for 10 days, and completed pre- and post-assessments to determine changes in upper extremity function.

**Motivation for Participating:** Requirement for OTR 513

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**Yibing Fu (#33)**

**Title:** A Comparative Study of the Undergraduate Piano Curriculum in China and U.S.

**Faculty Sponsor:** Professor Bonnie Choi, Music

**Abstract:** In the process of doing my poster, I was through reading papers and journals to collect the information. In addition, I have interviewed seven international students who have the experience to study piano in China and the U.S.A. In my poster, I related the information together to shows the difference system between China and America. I want to do this topic because I have my personal experience when I study in both country, the system of teaching and the program's requirements are so different. and for me, I think it is a good point to share with others.

**Motivation for Participating:** Requirement for Piano studio teaching

**Matthew Gasbarre, Grace Mckinnan, Sarah Rohe, Lexie Meyer, Bella Altieri (#34)**

**Title:** Ethiopian Therapy (occupation/physical)

**Faculty Sponsor:** Professor Heather Coles, Communication Sciences and Disorders

**Abstract:** We administered Physical and Occupational Therapy to Ethiopian students with a variety of cognitive and physical abnormalities and disorders. We used a variety of stretches, yoga, and activities including play-dough, shaving cream, silly putty, beads, and sensory bottle. Our purpose was to aid and educate the students and faculty of the school in order to improve their lives and well-being.

**Motivation for Participating:** It was an exciting traveling and educational experience that brought hand-on material beyond the classroom.

**Experiential Learning Pathway:** Service Learning, Student Leadership, Co-curricular Service, Field & Clinical Experience, Study Abroad

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**Allysa Gibson (#35)**

**Title:** Teen Pregnancy in Rochester, New York

**Faculty Sponsor:** Professor Walker, Public Health

**Abstract:** 1. I am analyzing the rates of teen pregnancy in Rochester, NY. 2. I am researching the rates and why they are what they are. 3. I am doing it because this is a topic from my internship at Highland Family Planning that interested me.

**Motivation for Participating:** Requirement for PBH 480

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**Zachary Gillard, Jack Crowley, Casey McCullough, Diana Levkovich (#36)**

**Title:** Financial Literacy Presentation

**Faculty Sponsor:** Professors Eileen M. Beiter and Cathy Leverone, School of Business and Leadership

**Abstract:** Students in the finance and accounting capstone courses researched three topics related to financial literacy. The research for each topic was presented to underclassman peers. The motivation behind this project was to increase the awareness of important financial literacy topics and concepts on campus.



**Motivation for Participating:** Requirement for Auditing (ACT 447) and Senior Seminar in Finance (FIN 430)

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**Alycia Gimler, Luis Vazquez-Szendrey, Mikaela Mayers (#37)**

**Title:** Lead levels in ocean water near Culebra Island in Puerto Rico are substantially above EPA permissible limits for coastal and estuarine water

**Faculty Sponsor:** Professor Padmini Das, Biology

**Abstract:** According to the U.S. Environmental Protection Agency, as of 2016, there were 534 instances of a pollutant interfering with the designated use of a water body in Puerto Rico. The purpose of this research was to assess the quality of oceanic water samples taken from Culebra Island in Puerto Rico. Water samples were collected from select public recreational beach sites and analyzed for lead content, turbidity, nitrate, pH, and hardness. Results showed that values for turbidity, nitrate, pH, and hardness were within EPA permissible limits. However, lead levels ranged from 150-575 ug/L, which is well above the EPA limit of 15 µg/L for lead substances in in coastal, surface, estuarine and ground waters. Lead is a known behavioral neurotoxicant and high concentrations pose potential health risks for citizens who frequent these public beaches in the Culebra Islands. Children, particularly those under age six who are most vulnerable to the adverse health effects from lead exposure, are accessing this water for recreational purposes with their families and are at risk of ingesting lead at every occurrence. To validate these results, our ongoing experiments aim to: 1) repeat these analyses with water samples obtained at two additional time points, and 2) identify a potential point source for the lead contamination around this area. Results from these studies will help to raise awareness about the state of these waters and provide insight into the sources of lead contamination.

**Motivation for Participating:** Share our research with the student body and faculty

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**Julia Gleason, Chelsea Pettigrass, Leah Denny, Pamela Wright (#38G)**

**Title:** The Effectiveness of Modified Constraint Induced Therapy in School Aged Children with Cerebral Palsy: A Day Camp Model with a Follow Up

**Faculty Sponsor:** Professor Kathy Stoklosa, Occupational Therapy

**Abstract:** This research study was looking to determine the effectiveness of a modified constraint induced therapy intensive day camp, for children ages 5 to 8 with hemiplegic cerebral palsy. The camp ran for 3 hours a day for 5 days, and the children wore constraints throughout the camp on their non-affected upper extremity to promote functional use of the affected extremity. The camp was designed to provide an intense dose of mCIMT to the children's hemiplegic upper extremity, to promote functional use

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and motor learning to improve occupational performance. The QUEST and the PMAL were used pre and post intervention to measure effectiveness. After the camp, half of the participants were assigned a home program. At 3 months post-intervention, occupational performance of all the participants was measured again to see long-term effectiveness of the camp and the home program. This study was completed in hopes to fill the gaps in literature about using mCIMT with the pediatric population and unknown long term effects of mCIMT in pediatrics.

**Motivation for Participating:** Requirement for OTR 513: Research Project Implementation and Analysis III

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**Jordan Goldbourn, Michael Capogreco, Catilin Champaigne, Megan Maggio (#39)**

**Title:** X-Culture: La Teresita

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, the team of four students will discuss their intensive global virtual team project on La Teresita. They are a Tea company out of Columbia who are looking to expand into a new market. We are asked to do market research and consult for La Teresita to provide what we believe to be their best options would be for market expansion. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT-430

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**Thomas Gordner Jr. (#40G)**

**Title:** On Campus Living and Students' Sense of Belonging

**Faculty Sponsor:** Professor Becky Fahy, Psychology

**Abstract:** This work is focused on the 2016 Freshman cohort at an institution of about 2,100 undergraduate students and how their On-Campus living experience influenced their sense of Belonging and vice versa. Predictions are made about how living experience and sense of belonging can impact retention and graduation rates.

**Motivation for Participating:** Requirement for HESAA 610

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**Chris Hand (#41G)**

**Title:** Impact Report on the Clinton Global Initiative University (CGI U) program at Nazareth College

**Faculty Sponsor:** Professor Diane Enerson, Psychology

**Abstract:** For my CARS project I did an impact report on the Clinton Global Initiative University (CGI U) program. To do this I created a survey and sent it out to past and current participants in the CGI U program. I then wrote a APA style paper on my findings. I will then create a poster to display at CARS. I did this for my capstone project for the HESAA program.

**Motivation for Participating:** HESAA faculty would like us to present at CARS, but it is not a requirement for the program.

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**Abby Hazlett, Mitchell Senecal, and Anna Socha (#42)**

**Title:** The Fluffiest Muffins: How Does Flour Type Affect Your Favorite Muffin Recipe?

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** Our purpose was to explore how different types of flour affect the baking of muffins. We baked apple cinnamon muffins using three different types of flour: all-purpose flour, almond flour, and quinoa flour. We then determined the calorie content and other nutritional information for each muffin, as well as the mass, volume, density, taste, and overall satisfaction of each type of apple cinnamon muffin. Taste and overall satisfaction, the opinion-based factors, were averaged and recorded from 10 individuals.

**Motivation for Participating:** Requirement for Scientific Inquiry PEQ

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**Alyssa Henry, Rachel Parker (#43G)**

**Title:** Transition from High School: Parent Perspectives' on Finding, Accessing, and Engaging with Community Resources for Their Young Adult with a Developmental Disability

**Faculty Sponsor:** Professor Elizabeth Hebert, Occupational Therapy

**Abstract:** Transitioning a young adult with a developmental disability out of the school system is often times conducted and planned to foster the occupational shift of the individual. Whether it is years before the anticipated graduation or just soon after, parents perspectives on this transition are key to determining emerging new themes of

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this process. The purpose of our study is to explore the process parents and guardians experience to find, access, and engage with community resources for their young adult with a developmental disability to facilitate occupational engagement after they transition from the school system. Parents were guided through a series of open-ended questions pertaining to the experience of transitioning their young adult out of the school system. Interviews explored the positive as well as negative aspects of the process. Many common themes emerged with experiences varying across a spectrum. Some common themes included guidance or assistance from the school district, the motivation of the parents, and continuity of staff within community agencies. Information from the study will be helpful to families, school systems and community agencies in supporting the transition process to ensure the young adults are able to engage in occupations that are meaningful to them.

**Motivation for Participating:** Requirement for OTR 314

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**Sierra Hewitt, Kelsey Hill, Michaela Sandock, Shelby Coffey (#44G)**

**Title:** Relationships between Race, Region, and Age Range of children with Autism classifications in the U.S

**Faculty Sponsor:** Professor Michelle Donahue, Physical Therapy

**Abstract:** We used data sets published by the U.S. Department of Education to answer our research questions: 1). Is there a difference in the prevalence of Autism classifications among different ethnic groups across all ages (3-21)? 2). Is there a difference in the prevalence of Autism classifications in preschool (3-5 years old) vs school-aged (6-21 years old) children within and between different ethnic groups? 3). Is there a difference in the prevalence of autism classifications between different regions in the United States? We calculated the prevalence of Autism Classifications in different populations and analyzed significant differences between regions of the U.S. We chose this topic because there are inconsistencies within research regarding this information and it is relevant within and beyond the healthcare field.

**Motivation for Participating:** Requirement for Research V

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**Aubrey Hillman, Anna Kneeland (#45)**

**Title:** Repeating History: A Comparison of Truth in Two of American History's Most Controversial Elections

**Faculty Sponsor:** Professor Rio Hartwell, Political Science

**Abstract:** The subject of truth and its role in American society has come into serious question as to how citizens perceive the role of truth in government. We have chosen to

randomly survey 125 students, faculty, and staff at Nazareth College with the following question: “what is the meaning of truth to you, personally, and what has it become in society in light of the Trump election and administration?”. With the information gathered, we will analyze each response and look for popular themes that occur throughout participant responses. From there, we will categorize the responses by their themes and graph the data to make numerical sense and visually represent which responses were most common and how the rest compared. We plan to take our findings and compare them to another well-known controversial period in American history; the election and presidency of Andrew Jackson. Since Trump’s election, it has been widely pointed out that his presidency has mirrored that of Jackson in regards to treatment of immigrants, foreign policy, exploitation of land and its native peoples, and more. Through the analysis and comparison of historical records, letters, and articles to our research, we hope to highlight similarities and differences in American political culture in an attempt to prove once again, that lest we prevent it, history may repeat itself.

**Motivation for Participating:** Our passion for history and how it effects our past, future, and present

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**Jordan Holley, Brandyn Marcellus, Moises Ferreras, Brennan Leibenguth, Josh Ripic (#46)**

**Title:** X-Culture Global Virtual Team Experience: La Teresita, Integration into International Markets

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster a group of five students will discuss their intensive global virtual team project on La Teresita. La Teresita is a tea company based in Columbia that specializes in producing herbal tea infusions. We have been tasked with providing them a marketing strategy to take their company to the next level by expanding in further global markets. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT-430

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**Alexander Holt (#47)**

**Title:** Text Me or Talk to Me? Gender Differences in Technology and Romantic Relationships

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

## Poster Presentations

**Abstract:** We rely on technology on a day to day basis. It is an essential part of daily life for many and has now come to influence even the most personal aspects of our lives. This research examines the role of gender in attitudes about technology's role in romantic relationships. This research will also explore how individuals use technology to find romantic partners, as well as how they use it while being in romantic relationships. Cancian's work on the feminization of love is used to explain the findings.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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### **Tori Hughes (#48)**

**Title:** Cultural Comparisons of Family Lifestyles

**Faculty Sponsor:** Professor Esperanza Roncero, Spanish

**Abstract:** While in Spain I interviewed several individuals from all around the world (Spain, China, France, Italy, etc.) I asked them simple questions about their family dynamic growing up, siblings, how they grew up and in what manner they like to raise their children (if applicable). I then returned to the United States and gave the same interview to several individuals here, asking them the same questions in order to compare how individuals in the United States are raised compared to that of individuals from other countries.

**Motivation for Participating:** Requirement for OCL\*373-01; Research Exploration

**Experiential Learning Pathway:** Study Abroad

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### **Ryan Hurley (#49)**

**Title:** Technology: We All Use It The Same, Don't We?

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** Technology plays a huge role in modern relationships. Nearly every relationship is influenced by technology. But does race influence how people use technology in relationships? I hypothesize that technology is used differently in romantic relationships due to race. My research will include survey results to collect data. The survey will question how race affects how people use technology to find relationships, how technology is used in a relationship, an attitude toward technology in a relationship, and whether or not technology is seen as good or bad for relationships. This research and hypothesis are justified because race has a massive influence on society. People of different races experience very different realities, so why would technology be any different?

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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**Alexandria Ireijo, Brianna Hart (#50)**

**Title:** Green Cleaning

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** Store bought cleaning products contain harsh chemicals that can be attributed to health problems. In this experiment our goal was to determine if holistic cleaning products clean as effectively as store bought chemicals. We aimed to find a natural cleaning solution that works as efficiently or better than store bought all purpose cleaning products. We made several different natural recipes and compared these recipes to store-bought all purpose cleaners by measuring the percentage of mess cleaned by each product to determine which cleaning product was the most effective.

**Motivation for Participating:** Requirement for SCI.Q101

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**Sydney Jones, Monica Grisdale, Dana Smith (#51G)**

**Title:** Parent Perceptions of Social Participation Following Therapeutic Horseback Riding for Children Diagnosed with Autism Spectrum Disorder

**Faculty Sponsor:** Professor Julie Kunisch, Occupational Therapy

**Abstract:** In partnership with the Equicenter, we conducted semi-structured interviews of parents with children with autism regarding their perceptions of the effects of therapeutic horseback riding on social participation. Interviews were analyzed and themes were pulled out to determine the results of the study. There is currently a lack of research supporting positive changes to social participation through therapeutic horseback riding. This is a preliminary study which will be replicated and expanded in the future.

**Motivation for Participating:** Requirement for OTR514

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**Roger Joya, Molly Calvacca (#52)**

**Title:** Store vs homemade Bath bombs

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

## Poster Presentations

**Abstract:** We created three different bath bombs to challenge the store bought ones. We did it to see what the best option is based on what the bath bombs are listed to do and are made up of. We did it to know how efficient the homemade ones were because of the high price of store bought ones.

**Motivation for Participating:** Requirement for SCI 101

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**Matthew Krieg, Jennifer Whelan, Sean Steedman, Sophie Fowler, Jennifer Hilts (#53)**

**Title:** Mercy, Not Manslaughter: Why Physician-Assisted Death Should be Legalized

**Faculty Sponsor:** Professor Steitz, Gerontology

**Abstract:** This poster was created as a way to convey research regarding the various arguments surrounding the topic of Physician Assisted Death. It was created as a class project for Issues of Aging. We chose this topic because it has been discussed in recent legislation and has generated a lot of controversy in specifically the geriatric population.

**Motivation for Participating:** Requirement for Issues of Aging

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**Celine Kristoff (#54)**

**Title:** In the Eye of the Beholder: A Study of Facial Perception and Attraction.

**Faculty Sponsor:** Professor Fessler, Psychology

**Abstract:** As part of an independent study, I am running a research study to determine if perception of and attraction of faces are influenced through the use of the split faces test. I am currently gathering data from Nazareth students by presenting participants with photos and having them answer questions about them. This study was a follow up/spin off from a study I had previously done on attraction in my PSY 202 class, but what compelled me to perform the current study was the desire to learn more about factors that influence attraction of faces specifically.

**Motivation for Participating:** To present my data from an independent study

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**Allison Kurthy (#55)**

**Title:** Framing Success: The Effect of Framing on College Students' Attitudes and Performance in Mathematics

**Faculty Sponsor:** Professor Lindsey LaPlant, Psychology



**Abstract:** The achievement of mathematics students may be linked to the way the subject is instructed. This study explored the effect of framing on college students' performance and attitudes. Half of participants were told a mathematics exam was difficult, while the other half were told the exam was easy. Students completed the exam and a questionnaire assessing their opinions on it and mathematics. Results indicated higher exam scores in the difficult framing condition.

**Motivation for Participating:** To share the results of a psychology research experiment

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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**Allison Kurthy (#56)**

**Title:** Student Evaluation of Undergraduate Campus Support Services Beyond Their First Semester

**Faculty Sponsor:** Professor Rebecca Fahy, Psychology

**Abstract:** Undergraduate students at Nazareth College are provided the link to an online anonymous survey inquiring about their knowledge/experience with and opinions of campus support services and their effectiveness. Preliminary data analyses show that many students feel there is a lack of mental health resources, and 59.3% of responders reported that they received significantly more support during their first semester as compared to subsequent semesters. These results can be utilized by the institution to incorporate student feedback into their services, and to improve the college experience for its students.

**Motivation for Participating:** To share results of an independent research project that directly affects Nazareth College

**Experiential Learning Pathway:** Co-curricular Service, Field & Clinical Experience, Mentored Scholarly & Creative Activity

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**Mary Laird (#57)**

**Title:** Inaction Due to the Personal Risk of Moral Decision Making

**Faculty Sponsor:** Professor Lindsey LaPlant, Psychology

**Abstract:** The results of this study examining the effects on the identity of an individual compared to the likelihood of sacrificing them were reported. It was hypothesized that as the personal risk to the participant increased, the likelihood of saving the five

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strangers would decrease and that participants would be most likely to save a loved one. Participants (N = 21) were a convenience sample of 3 males and 18 females ranging from 18 to 23 years of age. They read a scenario with a stranger, loved one, or themselves having the ability to stop an oncoming train. Participants then rated the likelihood of sacrificing that individual. Results showed that participants were equally likely not to sacrifice a loved one, a stranger, or themselves. This implies that the majority of people preferred inaction to action, even if it meant saving more people.

**Motivation for Participating:** PSY 202 Statistics and Research Methods

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### **Madison Langer, Terri Spurlock (#58)**

**Title:** Hospital to Home: The Transcultural Collaborative Approach to Palliative Care

**Faculty Sponsor:** Professor Samantha Sassone, Nursing

**Abstract:** The purpose of our evaluation of Rajagiri Hospital's Palliative Home Care program is to view the program in the context of Leininger's Transcultural Theory of Nursing, whose goal is to provide universal, culturally-sensitive care and help those facing illness or death in a culturally meaningful way. While visiting the hospital, Professor Sassone was invited to experience the program first-hand and welcomed to bring students along. Dr. Biju and the team were interested in hearing our thoughts on their program and what we experienced during our time in the community. Recommendations were made based on what we experienced. Overall the program is extremely organized and is beneficial to the communities it serves.

**Motivation for Participating:** Requirement for HHS 450 Interprofessional Practice India

**Experiential Learning Pathway:** Service Learning, Field & Clinical Experience, Study Abroad

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### **Silver Law (#59)**

**Title:** X-Culture Global Virtual Team Experience: Bliive

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, our team of X STUDENT will discuss the intensive global virtual team project on Bliive. Bliive is platform that is based in Brazil and the U.S. The main purpose of this company is to find a new market where Bliive platform would work best. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and

scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT 430: Business Management Senior Seminar

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**Yeqing Li (#60)**

**Title:** Costume design

**Faculty Sponsor:** Professor Mariko, Theatre and Dance

**Abstract:** My project is going to be a costume design. I want to try the different style of dance costume. I want to combine the really traditional costume style and contemporary costume style together, I want to see how it gonna work, and how it gonna collision spark. Try connect to these two style and see how the different style costume influence dance.

**Motivation for Participating:** Requirement for DAN 400

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**Alexandria Lovejoy (#61)**

**Title:** Motivational Interviewing in Nursing Practice

**Faculty Sponsor:** Professor Kathleen Walker, Nursing

**Abstract:** Motivational interviewing, is a communication style used to elicit behavior change. When used in a clinical setting, motivational interviewing can lead to positive health outcomes and patient-provider communication. As a participant observer, I was able to whiteness this technique used in nursing practice and subsequently explore the evidence base for this technique. My goal is to use this technique in my own nursing practice.

**Motivation for Participating:** Requirement for PBH 480

**Experiential Learning Pathway:** Internships

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**Jacob MacKinnon (#62)**

**Title:** Analytics in Healthcare

**Faculty Sponsor:** Professor Mary Walker, Public Health

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**Abstract:** 1.) Create Healthcare Visualization tools based off analytics 2.) Using Analytic tools like tableau and SQL 3.) Part of Internship

**Motivation for Participating:** Requirement for PBH Senior Capstone

**Experiential Learning Pathway:** Internships

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### **Diego Mejía-Córdova (#63)**

**Title:** The Effect of Viewing Plants on College Students' Affect and Stress

**Faculty Sponsor:** Professor Beverly J. Brown, Biology

**Abstract:** Undergraduate college students were asked to view and draw aloe plants or empty pots with a #2 pencil and paper. Before beginning, the students' demographic information and connectedness to nature were evaluated. The student's heart rate, blood pressure, positive and negative affect, and stress levels were measured before and after they drew the aloe plant or pot. I designed the experiment this way to see the difference between the student responses in the presence of a plant compared to an empty pot.

**Motivation for Participating:** I am participating to learn about the importance of plants for well-being as part of a research project. This project was approved by the Human Subjects Research Committee and is funded by the Enhanced Student Employment at Center for Life's Work.

**Experiential Learning Pathway:** Field & Clinical Experience, Mentored Scholarly & Creative Activity

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### **Jessica Meyers (#64)**

**Title:** The American Pipe Dream; An Insight to the Inaccessibility of Healthcare for Refugees in the United States

**Faculty Sponsor:** Professor Kathryn Walker, Public Health

**Abstract:** America is built on the idea that people can come to this country to escape persecution, build a life, and find success if they work hard. The unfortunate truth is that this is not the case for many refugees and asylum seekers as many experience countless barriers to healthcare. This research examines the problems that refugees face when coming to the United States using both personal accounts and academic research to explore this issue.

**Motivation for Participating:** Requirement for Public Health Senior Capstone

**Jessica Meyers, Sarah Spano (#65)**

**Title:** Who's the Bigger Deviant: Men or Women?

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** This research will explore the role of gender in how infidelity, promiscuity, masturbation, or homosexuality are stigmatized. We will do a content analysis of media outlets, pop culture, legislation, and sex education that reflect these four categories of behavior. Drawing on Breckhus's work on the social construction of social identities, we examine whether stigma is symmetrical or asymmetrical when it comes to deviant sexual acts.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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**Nejra Mirvic, Hannah Kuper, Jenna Utter, Evan Steier (#66)**

**Title:** Can You Glow?

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** There are many different do-it-yourself (DIY) procedures online that indicate quick and easy ways to make a glow stick ranging from using mountain dew to luminal. In our experiment we tested four different methods for creating glow-sticks, as well as store-bought glow sticks, in order to determine the most successful method. We monitored the brightness of light and the amount of time the reaction produced light in each different method. Finally, we determined why each particular procedure worked or not did not work based upon the chemical reactions occurring in each method.

**Motivation for Participating:** Requirement for Integrated Science Inquiry

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**Rachael Moyles, Jack Wessel, Emilee Hyde (#67)**

**Title:** Developing a sustainable zero-waste multi-process remediation technology involving chemical immobilization and phytoremediation to remove excess nutrients (nitrate and phosphate) from a sewage treatment plant (STP) effluent

**Faculty Sponsor:** Professor Padmini Das, Biology

**Abstract:** Nitrogen (N) and phosphorus (P) are often elevated in streams in the western New York region due to non-point sources, like fertilizer runoff, and point-sources, like sewage treatment plants (STP). This problem has established the need for

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an effective N & P removal system at the plant before the discharge water enters the stream. Our research group is currently developing an innovative, zero-waste, sustainable technology involving a multi-process constructed wetland, where removal of excess nutrients will be conducted by two means: i) repurposing water treatment residuals (WTR), a waste sludge produced by a local drinking water treatment plant, and ii) using a native wetland species, *Typha angustifolia*, which has shown effectiveness for the removal of N and P. Data so far are highly encouraging; total P is removed effectively (>90% within 24 hrs) by WTR in a batch sorption experiment, with no significant desorption. In a follow-up greenhouse study using WTR and cattail, WTR alone was proven most effective in removing total P from the STP effluent and P-spiked DI water with no nitrate, followed by the combined WTR-Cattail treatment, and then cattails alone. Ongoing experiments are evaluating the potential for N removal by WTR and the combined WTR-cattail system.

**Motivation for Participating:** Requirement for Biology Research

**Experiential Learning Pathway:** Field & Clinical Experience

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### **John Nadig (#68)**

**Title:** Water and Society: How are they Connected?

**Faculty Sponsor:** Professor Walker, Public Health

**Abstract:** This is a culmination of my chosen direction while attending Nazareth. All my work in different classes that relate to the role of water in today's society.

**Motivation for Participating:** Requirement for PBH 480. senior Capstone

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### **Colin Neville, Matt Newell (#69)**

**Title:** X-Culture Global Virtual Team Experience: Packing SAS for the Peruvian, Panama, and Dominican Republic Markets

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, the team of Matt Newell and Colin Neville will discuss their intensive global virtual team project on Packing SAS. Packing SAS is a Colombian company that makes cardboard packaging and we were requested to identify a new market and increase online sales presence. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and

recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for Management 430

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**Chelsea Oppong (#70)**

**Title:** Footcare for the Homeless

**Faculty Sponsor:** Professor Kathleen Walker, Nursing

**Abstract:** Foot problems are common among homeless persons, but are often unnoticed; my objective was to provide foot care for the homeless at a shelter. This was done to provide for them to increase good self-care and proper self-hygiene.

**Motivation for Participating:** Requirement for Public Health Senior Capstone

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**Rachel Pacella, Bailey Groth, Matthew Corona (#71)**

**Title:** Analysis of Orthophosphate, Total Phosphate and Various Water Characteristics in the Genesee River Watershed

**Faculty Sponsor:** Professor Padmini Das, Biology

**Abstract:** The Genesee River Watch (GRW) is a nonprofit organization involved in surface water quality monitoring and community engagement within the Genesee River Watershed. This group conducts periodic field tests for water quality, including orthophosphate analysis. The primary purpose of our efforts was to compare and verify the results of the GRW field tests with test results from our lab. The Hach Method, a standard laboratory test for measuring total phosphorus in GRW samples, was employed. Our laboratory results did not correspond with the results obtained by GRW in field tests. This could be attributed to the difficulty of creating precise and accurate analytical standards at very low phosphorus levels. Another possible reason for the discrepancy involves the time lag between sampling and lab analysis. Over relatively short times phosphorus can exchange between bacteria and solution. Thus testing must be performed as soon as possible after sampling to ensure accurate results. Future directions involve resolving these discrepancies, as well as analyses of effluent from area wastewater treatment plants.

**Motivation for participating:** Requirement for Advanced Scientific Research

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**Caitlyn Paris-Woods (#72)**

**Title:** Neonatal Touch and Massage

**Faculty Sponsor:** Professor Kathleen Walker, Nursing

**Abstract:** Public health is closely linked to clinical practices in various health care settings, such that what happens in the health care setting affects the health of the public. Massage therapy is a non-invasive, cost effective intervention that can be applied in the NICU setting to reduce complications related to preterm birth. There are many benefits of providing this intervention early in life such as faster weight gain, decreased time needed for phototherapy, and increased brain development, among many other benefits. There are also proven benefits to mothers who practice massage on their infants such as increased connection, self-confidence, and postpartum mood. A literature review was conducted in order to determine the effects of neonatal massage therapy on infants and mothers. I conducted this literature review because I was initially interested in massage therapy, but ended finding passion in nursing and public health. Through my education, I found great interest in the infant population and will be starting my career in the NICU at URMU after graduation. This project combines three of my major interest areas: public health, nursing, and massage therapy.

**Motivation for Participating:** Requirement for PBH 499

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**Raymond Payne, Gina Martini (#73)**

**Title:** Analysis of Cadmium Quantum Dot Biosynthesis by *Shewanella Oneidensis*

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry and Biochemistry

**Abstract:** *Shewanella Oneidensis* (*shewanella*) is a facultative anaerobe with a unique sequestration mechanism in response to heavy metal exposure. This project focused on *shewanella*'s behavior in response to exposure with cadmium (Cd). The goal of the project was to obtain imaging using fluorescence microscopy to identify the presence of Cd quantum dot formation. *Shewanella* was grown aerobically in lysogeny broth (LB) to accumulate the bacteria after storage at -80 °C. After a three day growth period the bacteria are then moved to a flask containing LB, inoculated with cadmium acetate, and allowed to continue growth for forty-eight hours. Microscope slides were prepared for fluorescence imaging to determine if *shewanella* had taken the cadmium acetate into their cells and synthesized Cd quantum dots. When preparing the slides, the samples were added to a glycerol solution containing 10 µM of DAPI dye. DAPI dye was used to bind to DNA within the *shewanella* and allow for the location of cells on the slides. The slides were analyzed using the DAPN-I, FIT-C, TRIT-C filters, which allowed for the confirmation of the presence of quantum dots within the blue, green-yellow, and red spectrums.



**Motivation for Participating:** Requirement for SCI 420 - Advanced Scientific Communication, also to fulfill requirements for CARS funding for Summer Research Program at Nazareth College

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**Alexis Peavey, Jamie DiSalvo, Mary Chisholm, Victoria Clinch, Alexandra McCormick, Abbey Zych, Maria Petosa, Kaitie Wood, Megan Norton, Dana Dale (#74)**

**Title:** Helping Hands: Educating Students Who Are Deaf in Ethiopia

**Faculty Sponsor:** Professor Heather Coles, Communication Sciences and Disorders; Professor Kathy Hansen, Center for International Education; and Professor Shirley Sommers, Education

**Abstract:** This presentation addresses the collaborative efforts of Nazareth College students and Visions Global Empowerment to engage in a service learning experience. Visions is a nonprofit organization that strives to bridge the gap of inequality through education by working with multiple schools and centers all over the world. Twenty students from Nazareth College traveled to Ethiopia in January 2019. These students worked in a variety of different areas. Ten of those Nazareth students primarily worked with students who are deaf at Yekatit 23. Those Nazareth students developed lesson plans that they then implemented and shared with the teachers at the school. These lessons were built on sustainability so that the ideas and materials could be used for years to come. In addition to providing teaching aid in Ethiopia, the students were able to learn about the culture and lives of the Ethiopian residents.

**Motivation for Participating:** It was a voluntary service learning trip! We were all interested in traveling to Ethiopia to learn about their culture and work with students there.

**Experiential Learning Pathway:** Service Learning, Study Abroad

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**Rose Pedretti (#75)**

**Title:** Alternative methods for the demetalation and metal insertion of iron-free cytochrome c for implementation in undergraduate laboratories.

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry and Biochemistry

**Abstract:** Cytochrome c is an extensively studied protein used in folding and unfolding analysis due to its well-known structure, small size and presence of an internal chromophore. The porphyrin structure within the protein does not fluoresce but this property can be altered through metal replacement. This study investigates a safer method for demetalation of cytochrome c and production of free-base porphyrin.

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Traditional methods require the use of anhydrous hydrofluoric acid which is not suitable for undergraduate studies. This experiment focused on the modification of existing methods to incorporate a combination of more common and less hazardous acids while maintaining a high yield of the metal-free protein. Free-base cytochrome c and its successive product after insertion of another metal were characterized using UV-Vis spectroscopy. This method could be used as a preliminary step in other undergraduate folding and unfolding studies.

**Motivation for Participating:** Requirement for CHM\*301-40 (Summer Research Experience)

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**Julia Penoyer, Rachael Moyles, Hanna Harrington, Alexander Hoyt, Bailey Groth, Matt Corona, Jack Wessel, Ivan Gergi (#76)**

**Title:** The Potential of Reusing WTR, A Water Treatment By-Product, to Design Sustainable Remediation Techniques for Rochester NY, Communities

**Faculty Sponsor:** Professor Padmini Das, Biology; Professor Stephanie Zamule, Toxicology; and Professor Dave Giacherio, Chemistry and Biochemistry

**Abstract:** Water treatment residual (WTR), a waste sludge that is generated during the drinking water purification process, has shown promises to be used as a remediation technique for a variety of soil and water contaminants. Our previous studies showed that WTR collected from a local drinking water treatment plant, has a high affinity for a variety of environmental contaminants, including arsenic, total phosphorus (TP), and lead (Pb). The long term goal of our research group is to reuse WTR as a chemical amendment to i) remove TP from the point source discharge to decrease the eutrophication potential of local streams, rivers, and lake and ii) immobilize soil-Pb in the residential properties of Rochester city neighborhoods. Our data so far established the need of sustainable remediation processes to solve these problems: TP levels were found to be surpassing the advisory limit (20 µg/L) all streams/rivers/lake in the area; moreover, local Sewage Treatment Plants (STPs) contribute significantly (< 0.001) to increase the trophic profile of the streams, in which they discharge their effluent. Currently we are designing a constructed wetland using native plants and WTR as this combined process effectively (> 90%) removed TP from the STP effluents and did not disorb any within the study period. Similarly, immobilizing soil-lead in the residential properties of the Rochester city neighborhoods is an utmost priority as more than 95% of homes were built prior to the ban of lead-based paint in 1978, meaning that current residents may be at risk. Indeed, we have found strikingly high levels of lead in a residential property, as high as 5000 mg/kg in bulk soil and up to 50,000 mg/kg in soils with buried paint chips. WTR's effectiveness in immobilizing lead is evident from our initial sorption/desorption experiment, where > 90% lead was absorbed by 5% WTR upto 1000 mg/L initial Pb concentration and almost no lead was released in three sequential desorption cycles. Ongoing experiments aim to determine the physicochemical characteristics of WTR to understand the mechanism of its affinity

towards TP and Pb. Additionally, environmental safety of WTR is being assessed using the Toxicity Characteristic Leaching Procedure (TCLP) and Synthetic Precipitation Leaching Procedure (SPLP). The results of these studies will determine whether WTR indeed represents a safe, cost-effective, and sustainable remediation strategy for the removal of environmental contaminants.

**Motivation for Participating:** Requirement for Advanced Scientific Research

**Experiential Learning Pathway:** Field & Clinical Experience

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**Susan Petty (#77)**

**Title:** Program Evaluation of Foodlink's Nutrition Education Programs

**Faculty Sponsor:** Professor Kathleen Walker, Public Health

**Abstract:** The purpose of this project was to conduct a program evaluation of Foodlink's Nutrition Education programs based on my internship experience. Foodlink is a nonprofit that provides free nutrition education programs and access to healthy food to the public. Their mission is to "leverage the power of food to end hunger and build healthier communities." Foodlink's multiple programs include the Just Say Yes to Fruits and Vegetables (JSY), Cooking Matters, and Eat Smart New York. Each of these programs teach a nutrition lesson while also either demonstrating a cooking lesson or having participants join in the cooking lesson. The evaluation assessed their history, mission, goals, program outcomes, and effectiveness of the program.

**Motivation for Participating:** Requirement for Senior Capstone

**Experiential Learning Pathway:** Internships

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**Makayla Pierpont, Kerri Wilson (#78)**

**Title:** Can you POP it?

**Faculty Sponsor:** Professor Kelly Hutchinson, Chemistry

**Abstract:** The purpose of this experiment was to determine how different do-it-yourself bubble recipes compared to traditional store-bought bubbles. We specifically investigated how the size, durability, and time of a bubble differed for each solution with the goal of finding the recipe to make the largest and most durable bubble. We created each DIY solution, then using multiple trials tested the durability, size, and time before popping. Also, for each of these solutions, we tested them with a smaller bubble wand and a bigger bubble wand to investigate if the size of the wand had any influence on the durability, size, and time before popping.

**Motivation for Participating:** Requirement for Science 101

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**Michael Riis (#79)**

**Title:** Day at Nazareth College with the Community Place

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** 1) In Management Ethics we were tasked with doing a service learning project. I chose to join the group to help choreograph a day to spend with the kids from The Community Place of Greater Rochester. 2) We did it through spending time together in a class creating a field day for the kids and allocating time and roles efficiently. 3) We did it because it was required and I felt that this Service Learning Project would be the most beneficial to me because I was able to spend time with these kids and entertain them through just a simple field day that we put together with a budget of less than \$200.

**Motivation for Participating:** Requirement for Management Ethics

**Experiential Learning Pathway:** Service Learning, Student Leadership

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**Jess Riley (#80)**

**Title:** Love is a Time Machine: How Views of Romantic Love Differ Across Generations.

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** People's attitudes, priorities, and experiences vary significantly across the life course. Being in love at 15 likely looks and feels very different compared to being in love at 85. Using an online survey, I collected data from different age ranges and asked them to define what romantic love is. The sociological imagination suggests that people experience love depending on when they are. Often people look back on past relationships with horror, asking themselves, "Why did I ever date that person in the first place?". This is most likely due to how standards and maturity levels are distinct depending on the point in time. In the following research, I examined how age plays a role in how people define romantic love.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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**Kelsey Roberts, Taylor Bowen, Jody Taylor, Kayla Nadelen (#81)**

**Title:** Socialized Medicine

**Faculty Sponsor:** Professor David Steitz, Psychology

**Abstract:** A poster was created to represent the issue of socialized medicine in the healthcare system. Socialized medicine is defined and explained, along with the relevance that this issue has in society. Examples of socialized medicine around the world, and the pros and cons of this form of healthcare were explored. This was accomplished through a socialized medicine simulation where students and elders in the class moved through different stations that represented different phases within a socialized medicine system. This simulation was constructed to determine whether socialized medicine would be beneficial or detrimental to the United States. Some may see socialized medicine as a solution to the rising costs and availability of healthcare, but others disagree. The issue of socialized medicine in the healthcare system is still being debated about today in the United States.

**Motivation for Participating:** Requirement for PSY 354 - Issues in Aging

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**Matthias Rollins, Allison Sortore (#82)**

**Title:** Tree Reconstruction from Edge-Deleted Subgraphs

**Faculty Sponsor:** Professor Matthew Koetz, Mathematics

**Abstract:** Attempted to develop a method of tree reconstruction from edge-deleted subgraphs. Reconstructing graphs until two methods discovered and then testing on various majors. We did this because it was an open math problem that intrigued our interest.

**Motivation for Participating:** Requirement for Math 490 Research in Math

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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**Susan Rollinson (#83)**

**Title:** A Comparative Look at Risk Factors for Non-Communicable Diseases Between Kerala and New York

**Faculty Sponsor:** Professor Samantha Sassone, Nursing

**Abstract:** Non-communicable diseases are a burden across the globe. In both Kerala, India and New York, USA there is a high prevalence for cardiovascular disease, cancer,

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chronic respiratory diseases and Type Two diabetes. All non-communicable diseases have a variety of risk factors and this paper looks at behavioral risk factors. After looking at data for both states it was found that the top three risk factors are obesity, high BMI and tobacco use. This is an important comparison to make because Kerala is an advanced state in a developing country that has similar socio-economic determinants as New York.

**Motivation for Participating:** Requirement for HHS45001-19SP Interprofessional Practices: India

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### **Sara Romero (#84)**

**Title:** LOVE IN A DIFFERENT LENS

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** Despite being a nearly universal experience, romantic love is hard to specifically define. When we think about love many of us have different views. For some, being in love is the most amazing feeling in the world, whereas for others who may have had a broken heart, true love no longer seems possible. This research examines the role of gender in how people define romantic love. Do men and women define romantic love differently? Drawing Cancian's work on the feminization of love, I hypothesize that men and women will define and describe romantic love differently. Data will be drawn from an online survey distributed via Facebook.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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### **Carly Rosenthal, Meghan VanHout, Heather Carr, and Giuseppe Morelli (#85G)**

**Title:** Art Therapy, Social Work and Life Prep: A Collaboration in Service to the Community

**Faculty Sponsor:** Professor Elizabeth Mott, Creative Arts Therapy

**Abstract:** The art therapy, social work and Life Prep students joined together to create a mural for Lolly Pop Farms. Through group advocacy, communication, and extensive planning this collaboration was able to work together to create for the community.

**Motivation for Participating:** Requirement for Internship for both art therapy ATR 506/508 and social work SWK 611/613

**Experiential Learning Pathway:** Service Learning, Student Leadership, Field & Clinical Experience

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**Kelli Ryu (#86)**

**Title:** Sliding “Straight” into Direct Messages? How Sexual Orientation Shapes Technology Use in Dating Markets.

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** This research project used surveys to collect data from various parts of the world on the topic of technology in romantic love. I explored the relationship between how people use technology to find romantic partners while looking at sexual orientation as my independent variable. Previous research has shown that groups of people with thin dating pools utilize technology in finding romantic partners. These groups include but are not limited to the LGBTQ+ community, middle-aged, and elderly people. My hypothesis is LGBTQ+ people and heterosexual people use technology differently to find partners while in romantic relationships. As technology is a large part of today’s popular culture, all types of people are given more accessibility to find partners in the comfort of their own homes using technological advances such as applications, websites, and chat rooms.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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**Katherine Saslawsky, Grace Keegan (#87)**

**Title:** The Power of Collaboration: Developing a Relationship With Your Co-Therapist in a Music-Speech Therapy Co-Treat

**Faculty Sponsor:** Professor Laurie Keough, Music Therapy; and Professor Heather Coles, Communication Sciences and Disorders

**Abstract:** This presentation will outline how Katherine, a Nazareth music therapy undergraduate student, and Grace, a Nazareth speech-language pathology graduate student, developed their relationship as co-therapists to enhance their client’s therapeutic experience. Topics will include educating on each other’s professions, overcoming common struggles of implementing a co-treat, writing a collaborate strategic song, data collection, and general strategies for success in a co-treatment session.

**Motivation for Participating:** We prepared this presentation for the Nazareth College Music Therapy Mini-Conference and would like another opportunity to display our research.

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## Poster Presentations

### **Lindsay Schreib (#88)**

**Title:** X-Culture Global Virtual Team Experience: X-Culture Kids

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, I will discuss my intensive global virtual team project on X-Culture Kids. This is an initiative of X-Culture focused on youth. X-Culture is a global virtual team experience of coming up with solutions to business challenges for international companies. X-Culture requested strategic advice on how to reach and engage kids 10-17 from schools other than colleges and universities. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT 430: Senior Seminar Business Administration

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### **Bethany Shaw (#89)**

**Title:** Stream Macroinvertebrate Density at Three Sampling Sites

**Faculty Sponsor:** Professor Brian W. Witz, Biology

**Abstract:** We sampled macroinvertebrates at three sites on Honeoye Creek to compare population densities

**Motivation for Participating:** Requirement for BIO 453

**Experiential Learning Pathway:** Mentored Scholarly & Creative Activity

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### **Sarah Stolberg (#90)**

**Title:** Powers of Cyclic Graph Research

**Faculty Sponsor:** Professor Matthew Koetz, Mathematics

**Abstract:** I am showcasing my research from my Math Research class. I researched features of cyclic graphs by doing my own drawings and finding patterns. I consulted with my professor every week for advisement. This project was for the class.

**Motivation for Participating:** Requirement for Math Research



**Experiential Learning Pathway: Field & Clinical Experience, Mentored Scholarly & Creative Activity**

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**Nicole Szudlo (#91)**

**Title:** Handles or Homing Pigeons: Do generations differ in how they communicate in romantic relationships?

**Faculty Sponsor:** Professor Kimberly McGann, Sociology and Anthropology

**Abstract:** Differences in aptitude and use of technology between younger and older generations is well documented. This research explores whether there are age differences in how people use technology to find romantic partners and communicate with them, as well as whether there are differences in general attitudes toward technology's role in romantic relationships. Data will be gathered through an online survey. While our experiences of romantic love often feel entirely personal, like many other aspects of our lives they are actually socially shaped. C. Wright Mills' idea of sociological imagination is used to analyze the findings.

**Motivation for Participating:** Requirement for Sociology Senior Seminar

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**Leanni Tate (#92)**

**Title:** H.E.L.P Evaluation

**Faculty Sponsor:** Professor Mary Walker, Public Health

**Abstract:** During my internship I worked within a program named H.E.L.P that worked directly with senior citizens with long hospital stays. I decided to revise my internship site and evaluated their plans by looking at the history, objectives, and goals to see whether or not their program is effective.

**Motivation for Participating:** Requirement for PBH\*480 Senior Capstone

**Experiential Learning Pathway:** Internships

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**Karah Vanderwarker, Ryley Amond, Cory Mason (#93)**

**Title:** X-Culture Global Virtual Team Experience: Mary's Poop

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

## Poster Presentations

**Abstract:** In this poster, the team of Karah, Ryley, and Cory will discuss their intensive global virtual team project on Mary's Poop. Mary's Poop is an organic alpaca manure company based in the United States that is exploring international expansion. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT 430(01)

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### **Nicole Waid, Raymond Payne (#94)**

**Title:** The Synthesis and Characterization of Various Perovskite Nanocrystals

**Faculty Sponsor:** Professor Sanela Lampa-Pastirk, Chemistry

**Abstract:** Perovskites have the general chemical formula of  $ABX_3$  where A and B are cations and X is an anion. The structure of perovskite nanocrystals (NCs) gives rise to interesting and useful properties such as facilitating charge transfer, colossal magnetoresistance, and ferroelectricity. The synthesis of perovskite nanocrystals involved the production of a precursor solution containing caesium bromide (CsBr) and lead bromide ( $PbBr_2$ ) dissolved in a small amount of DMF. This solution was then combined dropwise to a vigorously stirred organic solvent containing various amounts of oleic acid (OA) and oleylamine (OLA), and the  $CsPbBr_3$  nanocrystals were then precipitated in solution. The nanocrystals were pelleted with centrifugation, collected, and washed. The size and shape of the synthesized perovskites were then confirmed using UV-Vis spectroscopy and Fluorescence spectroscopy.

**Motivation for Participating:** To practice presenting experimental data.

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### **Nicole Waid, Frank Gaffney, Fatima Sanz (#95)**

**Title:** Investigation into the Interactions of Cresyl Violet with Nucleic Acid Molecules

**Faculty Sponsor:** Professor Amber Charlebois, Chemistry

**Abstract:** This research project involves the study of the interaction of nucleic acids with a small, planar, and aromatic dye molecule known as cresyl violet (CV). Cresyl violet is used as a visualization technique and can differentiate DNA from RNA after gel electrophoresis. In general, RNA stains a purple color while DNA is a bluer hue, with differences in color being seen based on the bases in the sequence of the nucleotides. While the color difference is easily seen by the human eye, UV-Vis Spectrophotometry provides a quantitative description of the color differences. Therefore, the use of a fiber

optic UV-Vis spectrophotometer was incorporated to compare and contrast CV's interaction with DNA and RNA following electrophoresis. This "in gel" application of fiber optic has successfully allowed for the acquisition of the UV-Vis absorbance measurements of the DNA/RNA-CV complexes while in the gel. The DNA and RNA oligos that were analyzed were homo-polymers and were 15 bases in length. The wavelength scans of the different oligos are unique and therefore indicate the DNA//RNA-CV interactions could be, at least in part, base dependent.

**Motivation for Participating:** To practice presenting our data with confidence.

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**Julia Waldorf, Andrea Pieters, Tyler Guarnieri, and Jazlyn Melindo (#96)**

**Title:** Strategies to Increase Parent Engagement in an Interprofessional Preschool Play Group

**Faculty Sponsor:** Professor Lisa Hiley, Communication Sciences and Disorders

**Abstract:** This poster presentation displays an interprofessional clinical collaboration opportunity for occupational therapy, music therapy, and speech therapy students. Together the student clinicians had the opportunity to run a preschool play group among twelve 2-4 year-old children. The purpose of the play group was two-fold: to facilitate opportunities for play and social interaction for the children, and as a therapeutic learning experience for the students. We organized sessions that encouraged developmental skills including play, language, sensory stimulation, socialization, and active music engagement. Throughout the semester, we received informal feedback from a few parents and realized that the overall play group experience could be enhanced through further parent engagement. Subsequently, the clinicians created several materials, including a welcome letter, a mid-semester parent questionnaire, and a take-home booklet, to share materials and encourage parent participation in the goals of the play group and beyond.

**Motivation for Participating:** Clinical experience

**Experiential Learning Pathway:** Service Learning

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**James Walsh (#97)**

**Title:** Program Evaluation for Public Health Intervention

**Faculty Sponsor:** Professor Mary Walker, Public Health

**Abstract:** I did program evaluation of the american diabetes associations tour de cure. Looking to see how implementing casual theory and logic models can benefit or increase the health impact.

**Motivation for Participating:** Requirement for PBH capstone

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**Emily Welch (#98)**

**Title:** Trophic Profiling of Lake Ontario at the Mouth of the Genesee River in the Summers of 2016, 2017, and 2018 and its Correlation with Algae Blooms and Weather Conditions

**Faculty Sponsor:** Professor David Giacherio, Chemistry and Biochemistry; and Professor Padmini Das, Biology

**Abstract:** Each summer, massive algal blooms in the Great Lakes region lead to eutrophication, which disrupts aquatic life, decreases the recreational value of the lakes, and threatens drinking water supplies of shoreline communities. In this study we characterized the trophic profile of Lake Ontario at the mouth of the Genesee River in Monroe County, NY for three consecutive summers, evaluated the contribution of the lower watershed of the Genesee River in the eutrophication of the lake, and correlated the trophic profile with air temperature, lake water level, and total rainfall from January to June. At a beach adjacent to the mouth of the river, large algal blooms were present. Samples from sites along the river and the surrounding lakeshore were analyzed for a variety of parameters including total phosphorus (TP), nitrate, ammonium, and dissolved oxygen (DO). A qualitative assessment of the algae blooms was also carried out. During the summer months, a bulldozer pushes algae away from the swimming area and into a “restricted area” next to the pier. In 2016 and 2018, this algae-rich area was found to be hypereutrophic and had TP levels many times higher than the EPA limit of 0.2 mg/L and ammonium levels higher than the EPA limit of 2 mg/L; in consequence, the DO levels were lower than the dead zone threshold of 5 mg/L. As for nitrate-nitrogen measurements, the levels were higher than the clean water guideline of 1 mg/L, but within the EPA limit of 10 mg/L in most locations. The data indicate that the TP levels were of much greater concern than the nitrogen levels at all sites. Genesee River samples also showed high TP, suggesting that the river contributes significantly to increasing the total phosphorus index of the lake. The lower trophic profile in 2017 as compared to 2016 and 2018 can be explained by the variation in the rainfall and lake water level; 2017 had much higher than average rainfall and lake water level, which explains the lower trophic index as a consequence of major dilution. TP shows a strong negative correlation with the total amount of rainfall (-0.996) and the lake water level (-0.982), while not affected by temperature (0.120). Current experiments are being conducted to target nutrient pollution and find a solution for the remediation of excess nutrients in the Genesee River-Lake Ontario area, as well as the Great Lakes region as a whole.

**Motivation for Participating:** Continuation of research conducted over the summer

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**Robert Whelan, Jenelle Gilliard, Alex Corvi, Tim Forrest Kortney Burdin (#99)**

**Title:** X-Culture Global Virtual Team Experience: Hiplantro- La Teresita: for UK, Turkey, Brazil, and USA

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** This project showcased a developed report of a Columbian tea company that is focusing on expanding. Our team reached various target markets for La Teresita to enter and we researched all the advantages and possibilities for the company.

**Motivation for Participating:** Requirement for Senior Seminar

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**Melanie Williams, Jacob Paluch (#100)**

**Title:** X-Culture Global Virtual Team Experience: Unicorn Baby/Unicorn Fibre for the China Market

**Faculty Sponsor:** Professor Jennifer Leigh, School of Business and Leadership

**Abstract:** In this poster, a team of 2 students will discuss their intensive global virtual team project on Unicorn Baby/Unicorn Fibre. Unicorn Baby is a company that develops cleaning products with gentle washing action that annihilates dirt but maintains the integrity of even the most fragile fibers, handmade treasures and baby items. The poster will provide a brief overview of the teaming process through the X-Culture experience and the company selected, identify disciplinary connections to the School of Business and Leadership curriculum, demonstrate to use of trade and scholarly data in the decision making and recommendations, and offer a logical argument for the varying recommendations for the company.

**Motivation for Participating:** Requirement for MGT 430: Business Management Senior Seminar

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**Lauren Williamson (#101)**

**Title:** Macronutrient Analysis of Select Organs of the Virile Crayfish, *Orconectes virilis*

**Faculty Sponsor:** Professor Brian W. Witz, Biology

**Abstract:** We analyzed protein, carbohydrate, and lipid content of select organs of the virile crayfish, collected from three sample sites on Honeoye Creek

**Motivation for Participating:** Requirement for BIO 453

**Experiential Learning Pathway: Mentored Scholarly & Creative Activity**

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**Kristopher Wysowski (#102)**

**Title:** Costume Design for Spring 2019 production of Vinegar Tom

**Faculty Sponsor:** Professor Yuanting Zhao, Theatre and Dance

**Abstract:** I designed costume for the Theatre and Dance Department spring 2019 production of Vinegar Tom. I am a BFA technical production major with a costume design focus. Vinegar Tom is my production assignment. I collaborated with the directors/choreographer. I researched the background of the script and the costume/accessory styles of the era the story took place, drafted and revised sketches, chose colors and fabrics, and constructed the costumes long with the costume shop staff. Costume is my passion. I want to hone my skills and work professionally in this field.

**Motivation for Participating:** Requirement for THL: LAB (Production Lab)

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## **SOARS Summer Research**

**Thomas V. Cuyler Jr.**

**Title:** Trauma and Its Effects on Classroom Behavior

**Faculty Sponsor:** Professor Shirley Sommers, Education

**Abstract:** We used qualitative research methods, including interviews and document analysis. Interviews: There were four participants in the study. Two of the participants were teachers, and the other two participants were students in K-12 urban educational settings. The interviews were recorded in order to maintain the trustworthiness of the participants' words. Document Analysis: Documents included letters, poetry and essays written by participants in relation to trauma. They were provided by the participants and used to substantiate data from interviews and for comparing with published research on the effects of trauma in the classroom.

**Motivation for Participating:** I had a personal interest in investigating this concept, due to my Education and Community Youth Development academic path.

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**Brianne Evevsky, Haley Vastbinder, Olivia Hanno, Danielle Taormino**

**Title:** Effects of Constraint Induced Movement and Language Therapy for Individuals with Chronic Stroke and Aphasia

**Faculty Sponsor:** Professor Kathleen Stoklosa, Occupational Therapy; and Professor Heather Coles, Communication Sciences and Disorders

**Abstract:** For our interprofessional study, we placed individuals who had a stroke resulting in aphasia and right hemiparesis in a constraint. This isolated motor activity to the right hand while also constraining language output. The purpose of our study was to determine the effects of modified constraint induced movement therapy in combination with constraint induced language therapy in improving language performance and motor function of the right extremity. We provided 4 weeks of interprofessional (occupational and speech-language therapy) intervention twice a week for 60 minutes where individuals performed functional activities while speaking.

**Motivation for Participating:** Requirement for OTR 514-01: Research II

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**Ivan Gergi, Jack Wessel**

**Title:** Potential of a zero-waste in-situ immobilization technology using drinking water treatment residuals (WTR) to reduce the risk of lead (Pb) exposure in Pb contaminated residential properties in Rochester, NY: A sorption desorption study

**Faculty Sponsor:** Professor Padmini Das, Biology

**Abstract:** In old residential properties, the elevated soil-lead (Pb) have been strongly correlated to increased blood-Pb levels, and hence pose a serious health risk to the residents of such neighborhoods. Our field and laboratory data from such properties in Rochester, NY showed striking background soil-Pb concentrations as high as 5000mg/kg, which released 9mg/L Pb to a simulated stormwater solution over 24h; which shows the potential risk of elevated Pb in stormwater from these neighborhoods as compared to the national mean Pb of 50µg/L in stormwater. Addressing this problem, our overarching goal is to develop a zero-waste *in-situ* sustainable technology, reusing a waste-sludge from a local drinking-water treatment plant as a soil amendment to immobilize the soil-Pb in contaminated residential properties in the older city neighborhoods in Rochester, NY. To achieve this long-term goal, the current sorption-desorption study evaluated the potential of an aluminum-based WTR to immobilize Pb from simulated soil solution as functions of time and initial Pb concentrations (0, 200, 400, 600, 800, 1000mg/L). Kinetic experiments were conducted with 0 and 5% WTR at three initial Pb concentrations (25, 200, and 1000 mg/L) shows up to 200mg/L initial Pb, WTR sorbed 100% Pb within 0 to 5h before reaching any equilibrium and no desorption occurred up to 24h shaking. At 1000 mg/L initial Pb, sorption equilibrium reached at 10h with 91.5% removal of Pb from solution; no desorption was noted until 10h, only 0.57% of the sorbed Pb was desorbed after 24h. At equilibrium (10h), more than 90% Pb removal was achieved at all initial Pb concentrations; Pb-sorption isotherm by WTR showed best fit to the Freundlich ( $R^2=0.99$ ), followed by Langmuir ( $R^2=0.98$ ), and the linear ( $R^2=0.94$ ) models. Three consecutive desorption cycles (with 24h shaking at each) was conducted to check the extent of irreversibility in Pb-WTR binding. The desorption (24h) data up to 600mg/L initial Pb showed complete hysteresis; very minimal total desorption combining three cycles were noted at 800 (0.5%) and 1000mg/L (1.4%) initial Pb. WTR's high and irreversible Pb-binding capacity is highly encouraging and currently being used in developing the soil-amendment technology to immobilize Pb in a field set-up at a Pb-contaminated residential property in Rochester city neighborhood.

**Motivation for Participating:** Requirement for receiving funding through Summer Opportunities for Activities in Research and Scholarship (SOARS) grant

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**Pamela Mason**

**Title:** Debussy's Syrinx: A Story of Two Scales and Two Worlds

**Faculty Sponsor:** Professor Zbigniew Granat, Music

**Abstract:** This paper is a result of a joint faculty and student research project that Dr. Zbigniew Granat and I conducted in the summer of 2018 through the SOARS grant. During this assistantship, I acquired analytical tools that have since informed my approach to music analysis. In this paper, I will demonstrate how such tools can be utilized through my research into Claude Debussy's flute solo, Syrinx. Debussy composed Syrinx in 1913 to accompany Gabriel Mourey's play, Psyché. The piece's title references the flute created by the Greek god Pan, who appears in the scene alongside which this music was played. In the scene, a nymph happens upon a group of mountain nymphs who worship the goat-god. Despite her initial resistance, she eventually succumbs to the will of Pan and joins the other nymphs in voluptuous worship. Debussy depicts this story in his composition for solo flute. In the piece, two hexachords, which correspond to the two whole tone scales, battle for dominance over the course of the piece, reflecting the conflict between the nymph's conscious apprehension and subconscious desire. In my paper, I will combine programmatic approach and theoretical analysis to explain the narrative trajectory of Debussy's composition.

**Motivation for participating:** Requirement for Summer Opportunities for Activities in Research and Scholarship (SOARS) grant

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## ***Evening Graduate Poster Presentations***

### **Sarah Beehler (#501)**

**Title:** Culture of convention: An autoethnography study on cosplay at Otakon

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** Cosplay is the action of talking a fictional character, usually from literature, and transforming them not only through costume but role-play as well. Thanks to our growing digital age, Participatory and visual cultures that have been discovered to embrace cosplay. What are the norms and insider knowledge that comes with being a cosplayer in these spaces of a convention? I am interested in learning how other cosplayers prepare for the convention from starting the creation of the cosplay to putting it out for display. I have done an Auto- ethnography with narrative inquiry documenting my own experience while at the Convention of Otakon which took place over the Summer in August.

**Motivation for Participating:** Requirement for AED 690

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### **Sarah Berg (#502)**

**Title:** What Experiences, Components, or Aspects of Playing Video Games do People Consider to be Therapeutic?

**Faculty Sponsor:** Professor Laura Teoli, Creative Arts Therapy

**Abstract:** The purpose of this research was to gather information on what about the experience of playing video games people find to be therapeutic. Three participants were interviewed about how video games were therapeutic for them, and what components of the video game itself were therapeutic. For the purposes of this study, therapeutic was defined as a coping skill or beneficial to their well-being. This research also explored how an art-making exercise can be used in connection with video games. The art-making gave the participants an opportunity to express their thoughts about video games creatively. Exploration of the themes of how video games might be therapeutic may give insight in how they could be used in a therapist's practice.

**Motivation for Participating:** Requirement for CAT 532.01/02 Culminating Project Seminar II

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**Amber Bocian (#503)**

**Title:** A Personal Reflection of Art Therapy Sessions with Students Who Have Autism Spectrum Disorder and Utilize a Communication Device

**Faculty Sponsor:** Professor Laura Teoli, Creative Arts Therapy

**Abstract:** I recruited students around campus to take an art therapy assessment: the Person Picking an Apple from a Tree (PPAT) Assessment. Students were also asked to take measures of creativity. I then examined similarities and differences that showed up in the PPAT Assessments of more creative versus less creative individuals. The PPAT Assessment is typically used as a diagnostic tool when working within the field of Art Therapy. Seeing how creativity impacts a person's response to the PPAT adds additional considerations when examining the assessment.

**Motivation for Participating:** Requirement for CAT 532

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**Caitlyn Camp (#504)**

**Title:** Creativity and the Person Picking an Apple from a Tree (PPAT) Assessment

**Faculty Sponsor:** Professor Stephen Demanchick, Creative Arts Therapy

**Abstract:** 1) We helped the LifePrep group in creating art that they wished to donate to community related purposes. 2) We ran group sessions in the art therapy clinic in order to create art pieces that would be donated to the community. 3) These began as a collaboration with the social work students. The LifePrep students showed interest in community based work and projects while working with the social work students, the social work students reached out to the art therapy clinic in order to collaborate on creating art for the community.

**Motivation for Participating:** Internship supervisor stated that the LifePrep class that we are working with was interested in having their work presented in CARS.

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**Blaithe Donovan (#505)**

**Title:** The Sketchbook as an Evocative Object: An Auto-ethnographic Reshaping of Sketchbook Practice

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** I am exploring the artistic process/or use of an artistic tool: the sketchbook. I am interested in this topic because despite being an aspiring artist and art educator, I find myself unable to keep a regular sketchbook. I review the limited previous research

## Evening Graduate Poster Presentations

on the topic, exploring various understandings or conceptions of the sketchbook as an object, as well as its use and its many benefits to contemporary artists. After contemplating these viewpoints I have resolved a personal definition of a sketchbook to be used in my research study. In the coming months, I will be conducting an auto-ethnography in which I force myself to use a sketchbook on a daily basis and record my progress, as well as interview peers who do use a sketchbook, about their regular practice. I also explain the methodology auto-ethnography, why it is appropriate for my interests, and how it will be used to conduct this future research study. It is my hope that this research will fill the gap in knowledge of the benefits of sketchbook usage to the budding artist and the importance of the development of an artist identity.

**Motivation for Participating:** Requirement for AED 690

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### **Jeffery Garrett (#506)**

**Title:** Implementing Executive Functioning Interventions in the Inclusive 6th Grade Classroom

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** As a Clinical Assistant, I am completing a teacher research project in a sixth-grade science classroom. I have been researching the effectiveness of physical and organizational interventions on the executive functioning skills of sixth-grade students in an inclusive core science classroom. I work with students twice a week, implementing interventions in whole group, small group, and individual settings. I am developing data systems in order to track and analyze my data, which will inform instructional and behavioral decisions. I believe that this research will help me better understand how to address executive functioning in my future classrooms, as well as ways to track and analyze these essential functions in order to inform my classroom decisions.

**Motivation for Participating:** Requirement for Clinical Assistantship

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### **Hannah Green, Alex LaPoint, Erin Strollo (#507)**

**Title:** Comparing Educational Requirements for Physical Therapy Practice in the United States and Physiotherapy in India

**Faculty Sponsor:** Professor Mary-Ellen Vore, Physical Therapy

**Abstract:** Recently, we traveled to India with an interdisciplinary team of students from the social work, public health, and nursing departments. During our trip, we visited an outpatient physical therapy clinic at Rajagiri Hospital and a holistic medicine hospital. While on these visits, we spoke with several practicing physiotherapists and other medical professionals who shared their knowledge of the educational requirements and

overall practice of physiotherapy in India. We realized that there are significant differences in the education that PTs receive in India as compared to the U.S. that carry over into practice, which is why we decided to analyze the two. We compared a variety of online resources and personal experiences to see how our American educational system compares to the Indian educational system and what benefits and drawbacks exist in each.

**Motivation for Participating:** Requirement for HHS 650: Inter-professional Practice in India

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**Jillian Hauck (#508)**

**Title:** Art and Autism: Equity for Autists in Urban Art Education

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** In this thesis proposal, I propose an ethnographic qualitative study about the art education of autistic students in an urban school district. I frame my research with a social model of disability (Wexler & Luethi-Garrecht, 2015) and neurodiversity perspective (Larsen, 2018, Silberman, 2015, & Stokas, 2016), and an arts equity (Kraehe, 2015). I pose the questions of: what are the teachers' experiences teaching autistic in the urban setting, how does urban art education affect autistic learners, and how do art teachers overcome inequities including distribution of materials, access to and participation in the arts. I describe my ethnographic methodology and data collection methods of interviews, written fieldnotes, and photographic fieldnotes and mapping. I finish my proposal by explaining my plan for analyzing the data collected through qualitative coding methods and considering potential outcomes of the study.

**Motivation for Participating:** Requirement for AED 690

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**Abigail Johnson (#509)**

**Title:** Teaching Phonemic Awareness and Phonics Through Movement

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** As a Clinical Assistant I am completing a research project in a second-grade general education classroom. I have been teaching and researching the effectiveness of integrating movement into phonemic awareness and phonics lessons for TIER II students. I have been working with seven struggling readers through utilizing the school's movement lab for small group intervention twice a week. At this point in my project I am hoping to determine how integrating movement into literacy instruction, specifically in teaching explicit phonics skills, impacts the learners' abilities to integrate phonics skills in their reading behaviors.

**Motivation for Participating:** Clinical Researcher

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**Shelby Just (#510)**

**Title:** The Effect of Multisensory Learning on Student Ability to Identify Letter Names and Sounds

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** Research is being conducted on the effect of multisensory instruction on six students' ability to identify letter sounds and names. The purpose of this research is to support first grade students who have phonemic awareness skills below their current grade level. The researcher has developed engaging activities to support student learning including: listening and interacting with read-aloud books, playing letter games, forming letters with Play-Doh, tracing letters by using a variety of materials, and identifying letters in isolation and within text. Students are pulled for instruction in large and small group settings two days a week for about 40 minutes total. Preliminary data show a pattern of improvement in ability to identify letter sounds and names for all students.

**Motivation for Participating:** I am a clinical assistant conducting research in a first grade classroom.

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**Carolyn Lawson, Ashley George, Michael Ngadi, Ryan Pallas, Beibei Hao (#511)**

**Title:** An organizational intervention into standardization and diversity in the recruiting processes of a small employee owned insurance company.

**Faculty Sponsor:** Professor Stephen Hill, School of Business & Leadership

**Abstract:** We completed research in the areas of both standardized recruiting efforts and diversity in recruiting. We interviewed the Business Manager for their insight into the problems and where they feel improvement is needed for a better recruiting and selection process. We completed a survey of hiring managers at the company to gauge where their knowledge and concerns are with the recruiting and selection process.

**Motivation for Participating:** Requirement for HRM 535

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**Donielle Leger (#512)**

**Title:** Why Students "Can't Do" Art

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** This research study is derived from the ever-increasing phrase "I can't do it," exclaimed from students in the art room. In my research I aim to show that students have decreased self-efficacy in creative problem solving due to misconceptions of the meanings of the term "art" and how it relates to their perceptions of failure. Approached from a constructivist paradigm these misconceptions are a result of both nature and nurture influencing metacognitive theory and individual student perceptions of the meaning of art. I propose that art should be understood as part of Dewey's theory of art as an everyday experience, but that misconceptions about art have led students to fear failure within the subject. A solution to this is teach students to embrace ambiguity, generate ideas, and do trans-disciplinary research in an environment similar to play. Doing this will promote creative problem solving, teach students to embrace failure and informs their meta-cognitive processes to increases self-efficacy, thus severely decreasing the "I can't do it" mentality within students.

**Motivation for Participating:** Requirement for AED 690

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**Erin Maloney (#513)**

**Title:** An Ethnographic Study of Mindfulness in the Classroom

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** In this thesis proposal, I propose an ethnographically informed qualitative research project that explores the implications of mindfulness-based practices, and their effect on creative processes in the art classroom. I consider mindfulness-based practices and sensory awareness activities, not only as tools for improved student behavior and well-being, but as instruments that can enhance art-making in schools. I frame my project using art educator Sheng Kuan Chung's (2003) notion of "zen aesthetics" in the art room. I describe my plan for the application of ethnographic methods including sensory-based field notes, interviews, and artifacts to reveal the implications of an art curriculum about what it means to be mindful.

**Motivation for Participating:** Requirement for AED 690

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## Evening Graduate Poster Presentations

### **Bailey McBride (#514)**

**Title:** How Does College Athletics Impact Students' Academic Success?

**Faculty Sponsor:** Professor Diane Enerson, Higher Education Student Affairs Administration (HESAA)

**Abstract:** This quantitative study will investigate how being a student athlete affects academic performance in comparison to non-athletes, specifically at Nazareth College. The study looks to determine if being a student athlete has an impact on GPA and graduation rates. Archival data from the Institutional Reach Database Warehouse at Nazareth College contains information on majors, enrollment, GPA, and well as athletics rosters across a number of cohorts that have graduated, or who possibly have not graduated yet from Nazareth College. This study will use the information from the Institutional Reach Database Warehouse to look at athletes versus non-athletes, starting for 1996 to 2014, and will compare the GPA rates and graduation rates of student athletes and non-athletes. For the purpose of the study, the results are coming from a sample size of just Physical Therapy students at Nazareth College.

**Motivation for Participating:** This is an opportunity for HESAA students to present the research they found while conducting a study for our Capstone.

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### **Stephanie Mercer (#515)**

**Title:** Best iPad Apps for the Tech Savvy Piano Teacher

**Faculty Sponsor:** Professor Bonnie Choi, Music

**Abstract:** In a technology driven world, today's piano teacher should embrace what is currently available to "spice up" piano lessons and spark interest in students as well as making the job of maintaining a studio easier and more efficient. The mobile phone and available apps on tablets and computers are becoming important tools for the modern piano teacher. More and more apps are designed to do everything from easing the burden of scheduling lessons and bookkeeping to creating backtracks for the drill of scales and arpeggios. Today's apps are very user friendly and easy to set up and begin using in the studio right away. In this poster presentation, I have selected what I feel to be the best iPad piano teaching apps available for teachers. They are primarily free of charge. They include the teaching and reinforcing of skills such as rhythm training, sight reading, and music theory. Other such apps help the student in their home practice sessions. I will introduce apps that can assist in the management of the piano studio including those that accept payment, file sharing apps, scheduling and marketing. Finally, I will highlight an app which is available for cataloging a teachers' library, resulting in quick and easy searches of the next perfect piece for the student.

**Motivation for Participating:** Faculty Recommendation



**Michelle L. Miller (#516)**

**Title:** Identifying Social Isolation in the Older Adult

**Faculty Sponsor:** Professor Stephen Demanchick, Creative Arts Therapy

**Abstract:** This thesis describes research which aims to identify levels of social isolation in a sample older adult population located in the Rochester, New York area. Social isolation is an objective condition, involving a lack of social support or interaction with others. This condition may have detrimental effects to physical and mental health. Identifying levels of social isolation in this particular age group may assist in developing policy and interventions to assist in preparing for the rapidly growing number of older adults in the U.S. Data will be collected using three short surveys and an art response. The findings will be compiled from the data to separate the concepts of objective social isolation and subjective loneliness in two sample populations to identify possible percentages and patterns of social isolation.

**Motivation for Participating:** Requirement for CAT53202-19SP Culminating Project Seminar II

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**Lana Orrange (#517)**

**Title:** The Effects of Bilateral Art on Levels of Anxiety and Stress

**Faculty Sponsor:** Professor Stephen Demanchick, Creative Arts Therapy

**Abstract:** This poster summarizes my thesis which explores Carole McNamee's bilateral art protocol. I adapted McNamee's 2006 protocol based off a review of art therapy, cognitive neuroscience, and Eye-Movement Desensitization and Reprocessing literature. I engaged in bilateral art twice a week for a period of seventeen weeks, and measured my levels of stress and anxiety throughout. This poster summarizes my literature review, method of intervention, and findings.

**Motivation for Participating:** Requirement for CAT 532

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## Evening Graduate Poster Presentations

### **Mary Lou Patnaude (#518)**

**Title:** Performance Transformations: Bridging the Gap Between Art and Life

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** In my thesis research, I explore the benefits of contemporary art practices, such as performance art, in the classroom. Through examples of performance art curriculum, supporting theorists and culturally relevant pedagogy I expand on why performance art is the right tool to bring students lived experiences into the classroom. Using performance art, artists can engage in new experiences to explore social, personal or cultural movements and issues affecting their lives as well as reflect on why certain issues regarding structures in society affect them.

**Motivation for Participating:** Requirement for AED 690

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### **Alexis Peavey, Julia Ryan, Emily Stamer (#519)**

**Title:** Science Inquiry and Language in Preschool

**Faculty Sponsor:** Professor Lisa Hiley, Communication Sciences and Disorders

**Abstract:** This semester, we used scientific inquiry to expand and support language development in Hillside's universal pre-kindergarten program. Physical science (e.g., magnets, motion, sound, light, force, gravity) were embedded into the classroom routine including table top activities, small and large group and play-based opportunities. This presentation will highlight the planning process including vocabulary, anchor charts, children's songs and literature and grammatical concepts (i.e., mental state verbs). Artifacts from the field will illustrate use of science inquiry to support preschool students scientific knowledge and associated concept/vocabulary development.

**Motivation for Participating:** Requirement for CSD clinical placement

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### **Noheli Ruiz, Jasmine Torres (#520)**

**Title:** The complexities of assessing and treating a bilingual/bicultural individual with aphasia: A case study

**Faculty Sponsor:** Professors Melissa Johnson and Heather Coles, Communication Sciences and Disorders

**Abstract:** Aphasia is a communication disorder that occurs as a result of stroke or brain damage and impacts an individual's ability to use or understand language. For people who are bilingual (i.e., speak and understand two different languages), aphasia can

impact both languages differently. There are many important factors to consider, including which language was learned first, which was used more frequently, and the language in which the person receives their language treatment, among others. For monolingual English-speaking speech-language pathologists, this poses a challenge as they work to deliver high-quality language therapy. The following case study analyzes the complexities and effects of monolingual assessment and intervention on a bilingual, primarily Spanish-speaking client who has been receiving speech-language services in English at the Nazareth College Neurogenic Communication and Cognition Clinic (NC3). This poster will explore (1) the challenges and complexities involved in assessing and treating an individual who presents with bilingual aphasia; and (2) the overall progress made by this client who was provided speech-language therapy in English. This discussion will also be informed by current research literature on bilingual aphasia.

**Motivation for Participating:** Interest in research on bilingual aphasia and educating others on working with this population.

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**Talia Ryan (#521)**

**Title:** Examining Local Art as Visual Culture Curriculum

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** For this thesis, I conducted ethnographic research on visual culture within a community: through the lens of public artwork. I conducted ethnographic analysis of specific works of art within in my own community, conducted interviews, and researched visual culture and its implications for curriculum. I chose to examine visual culture and public art because I am deeply fascinated by how public art in a community shapes and is shaped by its people. As an artist educator, I feel that visual culture is a necessary component in contemporary arts curricula; and I wanted to explore how the visual culture of a community might be influenced by the public art within it.

**Motivation for Participating:** Requirement for AED 690

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**MacKenzie Swinehart, Miranda Vellozzi-Fischetto (#522)**

**Title:** Service Learning Trip to the Dominican Republic

**Faculty Sponsor:** Professor Melissa A. Johnson, Communication Sciences & Disorders

**Abstract:** Nine graduate, one undergraduate student, and three faculty members from the Creative Arts Therapy (CAT) program and the Speech-language Pathology Department travelled to the Dominican Republic from January 4th to January 13th. The

## Evening Graduate Poster Presentations

primary purpose of the trip was to learn about and be immersed in the Dominican culture, to spread our knowledge in order to support local communities based on their stated needs, to promote multiculturalism, and to share our passion of art, music, play, and communication all while providing a sustainable plan for future growth. Participants collaborated and planned various activities and presentations in their prospective fields, interacting with a total of five different communities and organizations and included working with children with special needs, training a group of professional staff in local schools, and spending time with individuals with developmental disabilities. By sharing and exchanging knowledge with international professionals, we created a network of people and provided support to foster sustainable change overtime.

**Motivation for Participating:** To share our great experience and promote further involvement in Service Learning trips

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### **Sean Tiernan (#523)**

**Title:** Local Art, Local Identity: Understanding Rural Perspective About Art Education

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** In this thesis proposal, I propose an ethnographically influenced qualitative study involving local artists and folk artists of rural communities and an arts-based research approach to their art. I discuss what research I have found regarding rural art education and community involvement. I will explain the use of my ethnographic methods including interviews, field notes, and photo documentation. I close with how I plan to analyze my data and give an explanation of why art education classrooms should look at local art and build a connection to the community's local and folk artists, using the artists and their work in making the familiar strange.

**Motivation for Participating:** Requirement for AED 690

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### **Elena Tontoni (#524)**

**Title:** Embracing Autists: An Ethnographic Examination of Inclusive Elementary Art Education

**Faculty Sponsor:** Professor Samantha Nolte-Yupari, Art Education

**Abstract:** In this thesis proposal, I propose an ethnographic qualitative study that involves at least five elementary art teachers who work with students on the autism spectrum in an inclusive classroom environment. The purpose is to discover how elementary art teachers support their students with autism to ensure they have an equal learning experience. I discuss the importance of neurodiversity and the social model of disability for neurotypical students. I describe my methods of ethnographic data

collection of observations with fieldnotes paired with photo documentation and drawings, open-ended interviews with the teachers I observed, and artmaking with a child on the autism spectrum. I conclude with a description of how I will analyze my data, and my implications of what my research may discover.

**Motivation for Participating:** Requirement for AED 690

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**Aubrey Totsline (#525)**

**Title:** Teaching Mindfulness To Grades 3-5

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** Developed and taught mindfulness and self-regulation lessons for grades 3-5 modeled after the Mind Up! and Zones of Regulation Curriculum. Skills were taught in both small group and whole class settings. Students were recommended by their teachers or adults at home in order to gain skills in self-regulation of emotions, self-control, attention, focus, or positive thinking. Data was collected through teacher and student surveys (pre and post) and observational notes. I chose this topic of research as the focus of my clinical assistantship because I wanted to learn about more ways to support students' mental health.

**Motivation for Participating:** Clinical Assistant

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**Julie Uhl, Naomi Dillon, Kevin Lagueras, Mikkel Linskey (#526)**

**Title:** Validation of a Script Concordance Test to Measure Clinical Reasoning for Assistive Device Prescription.

**Faculty Sponsor:** Professor Sue O'Brien, Physical Therapy

**Abstract:** We developed and validated a script concordance test that measures clinical reasoning in PT novices during prescription of assistive devices (excluding wheelchairs) for those with TBI and CVA in inpatient rehab and homecare. We constructed 54 items based on previous research conducted by Dr. O'Brien. We then sent 26 exams to expert therapists and received 20 completed exams. We conducted statistical analysis of the reliability and validity of the script concordance test.

**Motivation for Participating:** Requirement for PTR 761

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## Evening Graduate Poster Presentations

### **Kristina Wells (#527)**

**Title:** The Benefits of Small Group Individualized and Differentiated Instruction for Struggling Readers and Writers

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I have been working with struggling readers and writers in grades 3-5 in a small group setting. The students and I have been working on their literacy skills that need developing. Instruction is data-driven and is used to guide the lessons. This research action project was a requirement for my clinical assistantship.

**Motivation for Participating:** Clinical Assistantship

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# ***Evening School of Education Graduate Capstone***

**Kimberly Falco**

**Title:** Graduate Inclusive Early Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690-80 Capstone Seminar

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**Ashley Gentile**

**Title:** Graduate Inclusive Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690

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**Katrina Karlsons**

**Title:** Graduate Inclusive Early Childhood or Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH69080-19SP Capstone Seminar

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**Emily McHale**

**Title:** Graduate Inclusive Early Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690

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**Brogan O'Halloran**

**Title:** Graduate Inclusive Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690

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**Ashley Watson**

**Title:** Graduate Inclusive Childhood Portfolio

**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690

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**Taylor Youngkrans**

**Title:** Graduate Inclusive Childhood Portfolio

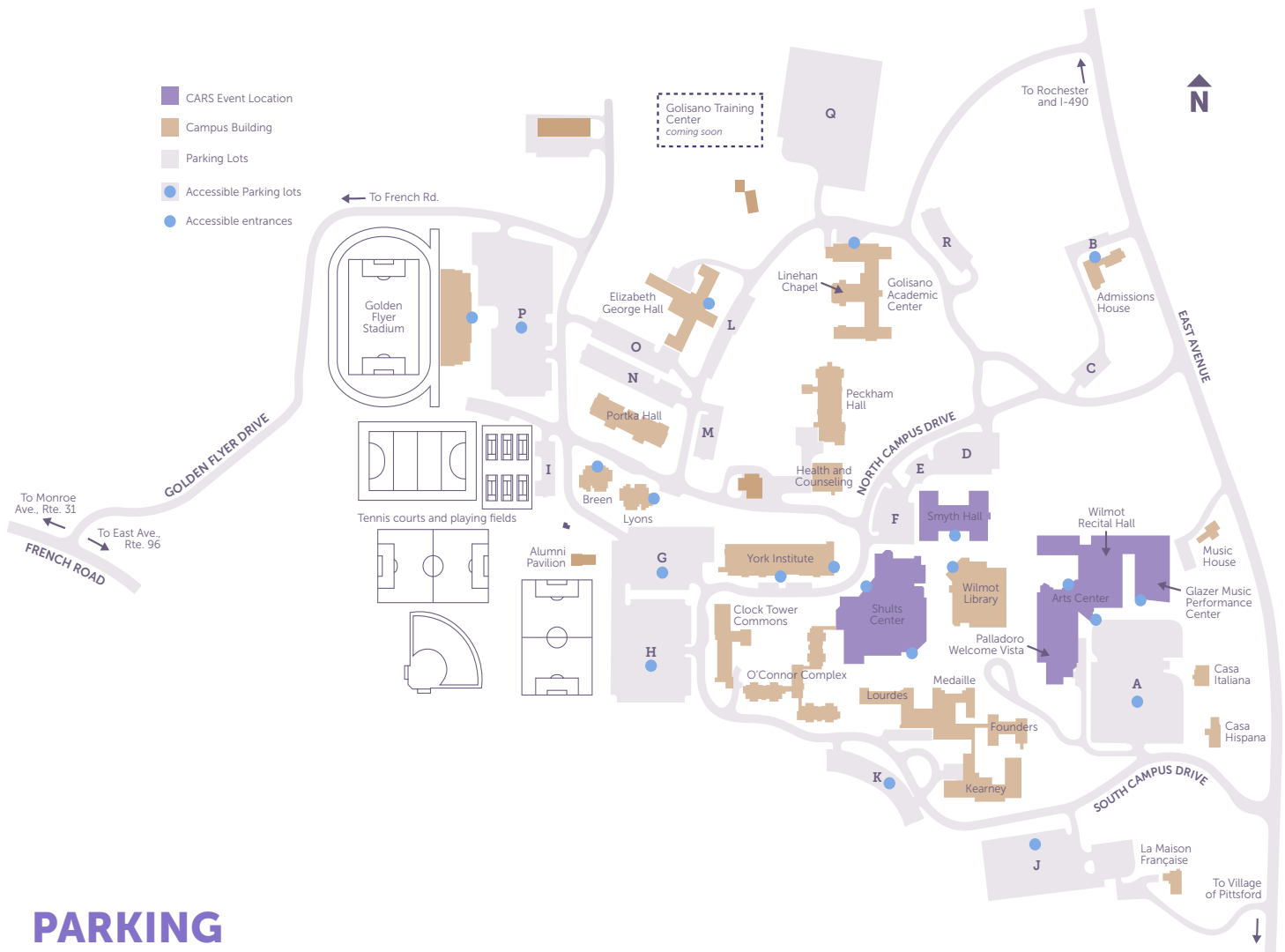
**Faculty Sponsor:** Professor Kerry Dunn, Inclusive Education

**Abstract:** I completed this portfolio as the end of my graduate experience at Nazareth College to demonstrate my abilities as a master's student in education. I followed Charlotte Danielson's Framework for Teaching and Learning to demonstrate my abilities as a teacher of young children.

**Motivation for Participating:** Requirement for INCH 690

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# CAMPUS MAP



## PARKING

- Visitors are asked to park in designated “visitor” areas or in lots A and B.
- Parking on campus roadways and grass areas is strictly prohibited.

Cover design: Katie Hjelm, art education grad student



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