



CARS

.....

DRIVING CREATIVE ACTIVITY, RESEARCH, AND SCHOLARSHIP AT NAZARETH COLLEGE

Friday, April 11, 2014

.....

1:30–4:30 p.m. • Arts Center

Nazareth
COLLEGE

naz.edu/cars

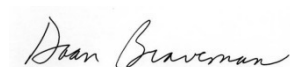
Introduction

We are excited to host the third annual CARS (Creative Activity, Research, and Scholarship) event, which showcases the achievements of Nazareth's undergraduate and graduate students. CARS 2014 features nearly 190 students who will display their work in a variety of formats, including performances, posters, artwork, and presentations. A new feature this year will be presentations by students who received summer research grants and worked with faculty members on their research projects.

The CARS event highlights the remarkable breadth and depth of the academic activities available to the students at Nazareth, ranging from scientific research to theater performances of student authored plays. It also underscores the value of a Nazareth education, which partners faculty and students who are dedicated to learning and discovery.

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

Sincerely,



Daan Braveman
President, Nazareth College

CARS 2014 Committee:

Leanne Charlesworth (Social Work)
Cathy Doyle (Library)
Diane Enerson (Psychology and Higher Education Student Affairs Administration)
Grant Gutheil (Psychology)
Jennifer Harman (Sponsored Programs and Faculty Research)
Richard Hartmann (Chemistry)
Debra Mathewson (Sponsored Programs and Faculty Research)
Kim McGann (Sociology and Anthropology)
Marjorie Roth (Music and Honors Program)
Stephen Taje (Chemistry)
Jeri Beckens (Graduate Assistant)

Program at a Glance

Format	Location	Time
Performances	Arts Center: A13	<p>1:30 p.m. “Composition: Music As Discourse”</p> <p>1:45 p.m. “Hands-on Improv – Planting the Seeds through Hand Drums”</p> <p>2:00 p.m. “Mozart Quartet for Flute and Strings”</p> <p>2:15 p.m. “Parlor Music from <i>The Etude</i>, 1913-1914”</p> <p>2:30 p.m. “Bel Canto: Beautiful Singing”</p> <p>2:45 p.m. “What's It Really Like to Arrange a Pop Song?”</p>
Presentations by 2013 Summer CARS Grant Recipients	Arts Center: Pallodoro Reception Hall (A137)	<p>1:30 p.m. Scholarly Edition of Krzysztof Komeda's Musical Score for "My Sweet European Homeland"</p> <p>1:50 p.m. Synthesizing DPA Derivatives to Identify Effective Cation Scavengers</p> <p>2:10 p.m. ¹H NMR Analysis of the Methylation of Acetic Acid Catalyzed by Tin (II) Bromide: A Kinetic Study</p>
Posters	Arts Center: Upper Lobby and Lower Lobby	2:30 p.m. - 4:00 p.m.
Reception	Arts Center Upper Lobby	4:00 p.m. - 4:30 p.m.

**The Nazareth Undergraduate Art Show will be open from
12:00 p.m. – 8:00 p.m. in the Arts Center Gallery.**

The Student Exhibition is an annual event in which Art students submit their best work in a variety of media to be considered for the show. Faculty panels jury the work for acceptance into the show. Students are involved in every aspect of the exhibition, including designing the poster, hanging the show, and preparing the reception. Once the show is mounted, an outside judge selects pieces for awards in each category (best painting, best sculpture, etc.) and an overall Best in Show.

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Performances

Lizz Abt, Kevin Anderson, Emily Chin, Eric Hauck, Xuan He, Katie Kempf, Lisa Lindenbaum, Jenni Logan, Louise Ly, Jean-Marie McCarthy, Kate Watkin & Margaret West

Title: Popular Piano Music Found in "The Etude" 1913-1914

Faculty Sponsor: Professor Beverly Smoker, Music

Abstract: The Nazareth College Piano Ensemble, nucleus of the Nazareth College MTNA Collegiate Chapter, has undertaken a project of researching piano solo and ensemble music as well as piano pedagogy related articles printed in The Etude from 1913 through 1914. The music printed in the Etude was intended to be easily accessible for formal performance, teaching, and social playing. Students have selected solos and duets to study and prepare for performance. The purpose of this performance is to show these pieces that have retained popularity in both formal and informal performance settings, and are still today heard frequently. Our program is: Under the Mistletoe-Englemann Hungarian Dance No. 5- Brahms, arr. for piano and violin by Joachim Berceuse- Goddard Consolation No. 3- Liszt Rhapsody March- Liszt March Militaire- Saint-Saens Nocturne in Eb Op. 9, No. 2- Chopin.

Reason for Participating: ENSO91 - Chamber Players Piano

Gretchen Erlichman

Title: Bel Canto: Beautiful Singing

Faculty Sponsor: Professor Katie Hannigan-Tabon, Music

Abstract: The lecture-performance titled "Bel Canto: Beautiful Singing" will explore how the elements of bel canto technique are still used in vocal performance practices of the present day. This presentation will entail the performance of "S'altro che lagrime," from Mozart's La Clemenza di Tito, which is a soprano aria that historically represents the music of the "golden era" of singing. This performance will be followed by a brief discussion of the main components of bel canto singing and how they are utilized in modern vocal pedagogy. Elements of this presentation will be based upon the specific research and study of bel canto technique that I completed through the musical training

Erlichmann continued

I received while abroad in Berlin, Germany. Through this lecture-performance, I hope to exemplify the technical and performative aspects of bel canto technique that are utilized in classical singing performances of the present day.

Reason for Participating: I wish to perform in CARS 2014 because it will present me with the wonderful opportunity to pair my studies as a vocal performance major with my academic interest in musicology research. Performing in CARS 2014 will not only allow me to showcase the efforts of my musical training with my fellow musicians, academic elders, and collegiate peers, but will also provide me with the ability to participate in the collaborative effort of the college to promote further endeavors of creative research among my generation.

Quinton Harvey, Cody Paul, Kevin Anderson, Brad Steiger & Nathan Harris

Title: Naz Composers' Showcase

Faculty Sponsor: Professor Jennifer Bellor, Music

Abstract: 1) We will present our student compositions from the studio of Jennifer Bellor in a live performance. We composed these pieces under her this past year, and will be showcasing our collaboration with student performers. 2) The student composer will briefly explain how the piece was composed prior to the performance. 3) We have an interest in composing music, and wanted to present our work to other students and Faculty at Nazareth College who wouldn't otherwise be aware of these new and exciting composition-related opportunities in the department.

Reason for Participating: MUP1Q01 & MUP1Q02 – Perform Prim Composition. Participating in this CARS project is strongly encouraged for every composition student in Dr. Bellor's studio, and will be counted as an extra-credit opportunity.

Hannah Schuetz, Dylan Niver, Timothy Dyet, Jeannie McCarthy, Gioavanni Magagnoli, Kevin Goddard, Kristen Bervy & Brandon McArdell

Title: Hands On Improv: Planting the Seeds Through Hand Drumming

Performances

Schuetz et al., continued

Faculty Sponsor: Professor Kristen Shiner McGuire, Music

Abstract: We started out by exploring sounds on hand drums and studying typical patterns played on conga, djembe, claves, shakers and agogo bells. We then created an ostinato pattern that we could each improvise over. In order to develop vocabulary, we did call and response with the teacher and each other. Through student generated rhythms, we are working on creating a composition of our own that utilizes musical form, improvisation, hand drumming skills and a visual "road-map" score that can be understood by anyone. Our goals are to create a comfortable space for our own improvisation; therefore giving us the ability to pass on the skills and passion for improvising to our future students.

Reason for Participating: MED 104 – Percussion Techniques II

Joanna Zaccaria & Nate Morris

Title: Fame Over Demise: What is it Really Like to Arrange a Pop Tune?

Faculty Sponsor: Professor Marjorie Roth, Music

Abstract: Fame Over Demise acoustic is a song made popular by the band Woe, Is Me. Knowing that Nate has experience with arranging and composing, I asked him to arrange the piece for flute, cello, and piano for my senior recital. The lyrics of the original song mean a great deal to me, and it is an honor to be able to play my favorite song with my friends on my recital. To start off, Nate dictated the melody line and chords and plugged everything into Sibelius. Through a series of trials, he was able to get the right articulations and balance between the cello, flute, and piano. In the end, he was able to keep the integrity of the original song, yet include his own personality and my requests into the new arrangement.

Reason for Participating: This opportunity allows Nate to explain and showcase his talents as a composer/ arranger. It also gives the audience a chance to see how much actually goes into arranging a pop tune. While they may only be made up of 4 chords, they can still sound complex and beautiful.

Stephanie Zimmer, Carly Shwarzkopf, Giovanni Magagnoli & Katrya Cichanowicz

Title: Quartet in D Major K. 285 by W.A. Mozart I. Allegro II. Adagio III. Rondeau

Zimmer et al., continued

Faculty Sponsor: Professor Margaret Leenhouts, Music

Abstract: This quartet has been a work in progress for about 2 years now. As a chamber ensemble, we have been working to develop our musicality, intonation, and balance in that period of time. Many people have heard of a string quartet, but a flute and string quartet is somewhat unique. It poses challenges in terms of balancing timbre and maintaining constant intonation. This quartet by Mozart has allowed us to focus on these two particular challenges while also exploring the stylistic requests of Mozart.

Reason for Participating: As musicians, we constantly search for performance opportunities. The CARS event allows us to share our art form with the entire campus. Students who may not normally listen to classical music will have the opportunity to experience it.

Presentations of 2013 Summer CARS Faculty- Student Grants

Mary Lawrence, Anna Vitale, Jake Wark, Lindsay Bronnenkant & Joshua Forget (alumnus)

Title: Scholarly Edition of Krzysztof Komeda's Musical Score for "My Sweet European Homeland"

Faculty Sponsor: Professor Zbigniew Granat, Music

Abstract: The goal of this project was the preparation for publication of a scholarly edition of a musico-literary work by Polish jazz composer Krzysztof Komeda (1931-1969), entitled *My Sweet European Homeland: Poetry and Jazz from Poland*. I became a member of a research team consisting of five undergraduate Nazareth College students who worked on various aspects of the editing process. I worked with Anna Vitale '16 on the textual layer of the work. We have assembled a set of 25 poems in German and English translations, as well as biographies of the poets. The other members of the team were three music students (Jake Wark '14, Lindsay Bronnenkant '14, and Joshua Forget '13) who focused on the musical layer of the work. They shared the responsibility of reconstructing the score from the composer's handwritten manuscripts and engraving them using the Finale music software.

Reason for Participating: Working on the project gave me a chance to be part of a research team and to use my German language skills outside a classroom setting.

Nick Polito, Nicole Delello, Jacob Murray, Hannah Garlick, David Studin & Allison O'Neil

Title: Synthesizing DPA Derivatives to Identify Effective Cation Scavengers

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: Dipicolinic acid (pyridine-2,6-dicarboxylic acid)(DPA) is a pyridine-based compound produced by gram-positive, spore producing bacteria. DPA has been shown to successfully chelate Calcium metal ions in aqueous solution. DPA-derivatives have the ability to act as heavy metal scavengers in aqueous solutions making them a novel alternative for the purification of contaminated water. My research involves synthesizing DPA-derivatives into more reactive species to create easier schemes for the production of derivatives. Several

Polito et al., continued

successful synthetic routes have been confirmed. The resulting derivatives were tested for their structural activity relationships towards forming chelation coordination species with specific cations. Using various organic synthesis schemes to produce new compounds and UV-titration to test the chelating ability of these compounds, we hope to identify DPA derivatives that will successfully scavenge metal ion contaminants in water.

Reason for Participating: Excellent hands on research experience and chance to use classroom knowledge to solve real life problems.

Nandini Singh, Nicole Bayona & Jaissy Sekhon

Title: ^1H NMR Analysis of the Methylation of Acetic Acid Catalyzed by Tin (II) Bromide: A Kinetic Study

Faculty Sponsor: Professor Richard Hartmann, Chemistry & Biochemistry

Abstract: Biodiesel made from waste cooking oil is a popular substitute for petroleum diesel. However, due to its high content of free fatty acids (FFA), waste oil must undergo an initial acid catalyzed esterification. This process typically employs concentrated H_2SO_4 but we chose a milder Lewis acid, tin (II) bromide, as our catalyst. Our investigation is part of a larger project which employs acetic acid, and tin II bromide as catalyst at various temperatures to verify computational derived activation energy and mechanistic data acquired from a collaborator. The preliminary data suggest the formation of a methanol-tin complex as the acidic species in this reaction. This poster will present our interpretation of the data and how it supports the preference of one mechanism over the other for the esterification reaction.

Reason for Participating: CHM 300 – Independent Research & CHM 400 - Advanced Chemistry Research

Posters

Olivia Abbott, Megan Tice, Erika Wurz, Emily Rothrock & Kim Greene (#1)

Title: The Hickok Center: Giving Back to the Community

Faculty Sponsor: Professor Dawn Vogler-Elias, Comm. Sciences & Disorders

Abstract: Our group completed a service-learning project with the Hickok Center for Brain Injury. Our goal was to create a volunteer opportunity for the members of the Hickok Center with a community organization because many of the members desire to give back to the community. We established a connection between the Hickok Center and a community organization with the expectation that a relationship would form that would lead to future opportunities. First, we became acquainted with some of the members of the Hickok Center and learned what types of volunteer experiences they desire. We then contacted several community organizations that aligned with the members' desires to find which organization has a need for volunteers and would be most accommodating. This opportunity is valuable to the Hickok Center because the members are redeveloping some of the necessary skills needed for interpersonal relationships within the community, as well as to the community organization because of the volunteer work that is completed by the members. This experience has taught our group about brain injury and has allowed us to build relationships with people who have experienced it, which is what many of us will be doing in our professional careers as speech-language pathologists.

Reason for Participating: CSD 457 - Case Studies

Madonna Adymy (#3G)

Title: Arts and Martial Arts

Faculty Sponsor: Professor Renee van der Vennet, Creative Arts Therapy

Abstract: This writer evaluated the following: does self-esteem increase with increasing years in martial arts and does self-esteem increase with increasing levels of belt rank in martial arts, both evident through two self-esteem scales and an art therapy assessment called Draw-A-Person. This writer also looked at the correlation between the two self-esteem scales in relation to the art therapy assessment to see if there was a positive correlation amongst them. In order to collect all this data, this writer recruited martial arts students from a karate studio and administered the art therapy assessment, as well as, both self-esteem scales. Data collected was then analyzed to evaluate the results, so to reject or accept the hypotheses. This topic was of interest to this writer due to persistent personal interest in both martial arts and the arts.

Adymy continued

Reason for Participating: To take the opportunity to present results of my thesis project in order to have professional development. As well as, gaining experience in presenting in a professional atmosphere.

Kelly Allen (#4)

Title: Homelessness - Project Homeless Connect

Faculty Sponsor: Professor Leanne Wood-Charlesworth, Social Work

Abstract: Project Homeless Connect is an annual event that was recently held in Rochester on September 20, 2013. The event connects homeless people with critical services in a "one-stop" venue. I served as an intake survey administrator at Project Homeless Connect as part of my Research Methods Class. I interviewed participants as they came into the event. I then analyzed the data from the 611 participants and presented findings to community stakeholders. I also compared data regarding our local homeless population with national data on the homeless population in the United States.

Reason for Participating: SWK 352 - Research Methods & SWK 485 - Independent Study on Homelessness

Karolina Aubrechtova (#5)

Title: Facebook & Memory

Faculty Sponsor: Professor David W. Steitz, Psychology

Abstract: I conducted research on specific Facebook characteristics (statuses, photos and interaction through chat) and the impact on students' learning processes and memory recognition. Three different groups of students, with 15 students in each group were included. First, students were presented with a lecture on a topic of memory. Later they were asked to browse one of the three assigned Facebook pages. At the end, the participants were asked to take an exam containing questions from the previously viewed lecture. I conducted this study because there seems to be a general trend in the research regarding this topic, revealing that high use of social media, specifically Facebook, worsens students' working memory and the overall ability to process information. Since social media is widely used by majority of college students, it was interesting to determine whether different types of Facebook activities influence students' learning processes and recognition.

Posters

Aubrechtova continued

Reason for Participating: PSY 485 - Independent Study

Shauna Bardanis (#6)

Title: Laptops in the Classroom: A Student's Best Friend or Worst Enemy?

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: This research examined the effects of high school students using laptops in the classroom. Grades from before the laptops were introduced into the school were compared to grades from after the laptops were integrated. Class year, subject type, race, and gender were all considered. This research is important because there are disagreements among researchers as to whether laptops are beneficial or harmful to student learning in the classroom.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Ana Bautista (#7)

Title: Making the Invisible Visible Personal and Community Analysis of Gender in The Bronx

Faculty Sponsor: Professor Lisa Cerami, Women and Gender Studies

Abstract: I conducted a research project that will dig into the idea of gender, sex and race within women and education in the Bronx area of New York City. With personal interview, archive, newspapers, and organizations there will be quantitative and qualitative data that will showcase the finding that I was able to dig up. At the end of this process I will reflect on my journey within this major and how we can intersect what we learn and the real world experience.

Reason for Participating: WMS 440 - Seminar in Women and Gender Studies

Todd Benjamin (#8)

Title: What's On Your Money?

Benjamin continued

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: United States currency has been circulated throughout the country and yet most people don't know where their money has been. Traces of cocaine have been found on bills under further investigation and I intended to find out which type of bill held the highest trace of cocaine. Twelve samples (4 \$1 USD, 4 \$5 USD, and 4 \$500 Vietnamese bills) were used in this experiment to find just how much cocaine is on them using the GC-MS. Each bill (folded accordion style) was placed in 4mL of methanol in a test tube and shaken vigorously for 4 minutes. Tweezers were then used to pull the bills out and 1mL of methanol was pipetted onto each bill to remove any excess. The solutions were then put through the GC-MS with set parameters at 2 micro-liter injections each. This was done using methanol because it causes the least destruction to the banknote. This experiment was conducted due to the fact that I wanted to find out what exactly could be on our money and if it was enough to eventually become a threat to our health and safety.

Reason for Participating: CHM 325 – Chemical Instrumentation

Kristen Beyea (#9)

Title: Images of the Homeless in the News Media

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: This research project analyzed how the homeless are portrayed in the media by looking at newspaper articles about homelessness from the Rochester Democrat and Chronicle and from the New York Times at four different points in time. Media images of the homeless shape, in part, how people think about the homeless, so this is an important topic for exploration to understand this persistent social problem.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Michael Black (#10)

Title: How does the Fermentation of Fruit Juice Compare to the Fermentation of Blended Fruit?

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Black continued

Abstract: The purpose of this experiment was to investigate the differences between the fermentation process of fruit juice and fresh blended fruit. Specifically, the alcohol concentration of each blended fruit and fruit juice was compared throughout the fermentation process. Apples, oranges, cranberries and grapes, along with the corresponding juices were used to determine which fermentation process yielded the highest alcohol concentration.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Elizabeth Bonomo (#11G)

Title: "Wish I Were Here": Bipolar Disorder and its Treatment with Electroconvulsive Therapy

Faculty Sponsor: Professor Thomas Christensen, Art

Abstract: For my psychopathology course, I decided to research Bipolar Disorder and its treatment with Electroconvulsive Therapy (ECT) based on my interest in the Tony award-winning musical, Next to Normal. My research focused on giving the main character of the musical, Diana Goodman, an accurate Bipolar diagnosis based on the criteria found in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), as well as studying a controversial way she receives treatment: Electroconvulsive Therapy. I wanted to know why ECT is considered controversial, why one might receive ECT as a treatment, the benefits and risks of receiving ECT, and the ethics surrounding the treatment.

Reason for Participating: PSY 534 - Psychopathology-Child, Adolescent, and Adult

Elizabeth Bradley, Haebin Lee, Chelsey Vano & Professor Stephen Demanchick (#12G)

Title: The Perceptions of Art Therapy Supervisors and Supervisees Regarding the Characteristics of High Quality Supervisees and Supervisors

Faculty Sponsor: Professor Stephen Demanchick, Creative Arts Therapy

Abstract: The purpose of this qualitative research study is to investigate the perceptions of art therapy supervisors and supervisees regarding the characteristics of high quality supervisors, supervisees, and supervision relationships in art therapy through individual interviews, review of documents used during the supervision experience, and study of related supervision artifacts. Additionally, the purpose is to

Bradley et al., continued

understand the relational and dynamics inherent in the art therapy supervisory process from the perspective of those who are currently involved in the process. Fifteen supervisors and/or supervisees participated in 30-45 minute interviews. Data was coded using NVIVO 10 by four researchers and themes were developed from coding processes.

Reason for Participating: CAT 530/532 – Culminating Project Seminar and Externship - This research is conducted as part of each students' master's thesis final project.

Julie Breed (#13G)

Title: The Apparent Digestive Efficiency of the Spotted Salamander (*Ambystoma maculatum*) Based on Cricket and Mealworm Prey Items

Faculty Sponsor: Professor Brian Witz, Biology

Abstract: 1) I measured the apparent digestive efficiency of the spotted salamander (*Ambystoma maculatum*) for both cricket and mealworm prey items. 2) I measured wet and dry weights of crickets and mealworms and used bomb calorimetry to determine the average energy per gram of both food items. I fed the salamanders a weighed quantity of crickets and mealworms and collected their feces. I recorded both wet and dry weights of the feces and used the calorimeter to determine their energy content. I then calculated the apparent digestive efficiency for each prey item. 3) I performed this research in order to better understand why salamanders eat what they eat. One of the reasons salamanders will choose certain prey items is because of the amount of energy they receive. Digestive efficiency is the percentage of food that is actually metabolized by an animal. Measuring the digestive efficiency for both crickets and mealworms will allow me to determine which prey item provides the greatest energy benefit to the salamander.

Reason for Participating: I am completing this research for my senior seminar class and I would like to present a poster to share my research and gain experience.

Nina Budde (#14)

Title: Caffeine Determination in Tea Varieties

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Budde continued

Abstract: I extracted caffeine from Black tea, Green, tea, and Yerba Mate and tested caffeine levels based on changes in steeping time and water temperature using UV-Vis spectroscopy and standard addition. This was done as a result of my personal interest in tea and an interest in its caffeine content.

Reason for Participating: CHM 325 – Chemical Instrumentation

Jacob Buell (#15)

Title: Comparison of Liquid Chromatography and Gas Chromatography Analysis of Bisphenol A

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: 1. Compared analysis techniques for Bisphenol A using Liquid Chromatography (LC) and Gas Chromatography (GC) 2. Made known concentrations of Bisphenol A and analyzed them using LC and GC and compared the quantitative data obtained. Then determined the limits of detection for each analytical instrument. 3. This was done as part of ongoing phytoremediation project taking place here at Nazareth.

Reason for Participating: CHM 325 – Chemical Instrumentation

Ashley Chambers (#16)

Title: Can You Blame Burnt Cookies on the Cookie Sheet?

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: I will be baking 3 different kinds of cookies on 4 different types of cookie sheets. I will be determining if the different materials have any relationship to whether the cookies are burnt or not.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

James Chambers (#17)

Title: Synthesizing DPA Derivatives to Identify Effective Cation Scavengers

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: Dipicolinic acid (pyridine-2,6-dicarboxylic acid)(DPA) is a pyridine-based compound produced by gram-positive, spore forming bacteria. DPA has been shown to successfully chelate Calcium metal ions in aqueous solution. DPA-derivatives have the ability to act as heavy metal scavengers in aqueous solutions making them a novel alternative for the purification of contaminated water. My research involves exploring synthetic schemes to determine the most effective routes for the production of DPA and DPA-like derivatives. Several successful routes have been identified and the resulting derivatives are being tested for their structural activity relationships towards forming chelation coordination species with specific cations. Using various organic synthesis schemes to produce new compounds and UV-titration to test the chelating ability of these compounds, we hope to identify DPA derivatives that will successfully scavenge metal ion contaminants in water.

Reason for Participating: CHM 400 - Advanced Chemistry Research

Qing Chang (#18)

Title: Which Brand of Cleaner Works the Best for Chocolate Stain?

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: I used four brands of cleaner to clean chocolate stain, and compared how much of the stain had been taken off. I want to determine which brand of the cleaner works best.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Katrya Cichanowicz (#19)

Title: Music of the Holocaust

Faculty Sponsor: Professor Zbigniew Granat, Music

Cichanowicz continued

Abstract: This poster will present my research on musical creations of the Holocaust. The goals of this project were manifold, but the overarching purpose was to convince my audience of the power of music, both miraculous and malevolent. A secondary, but equally important aim was to bring to light the stories of the lesser-addressed groups persecuted in the camps. Initially this research was in the form of a paper, but for the poster I will present my findings through rhetorical and theoretical analysis of musical compositions from the Holocaust. The three musical works discussed will provide a sampling of the musical world within the camps since all were composed by different individuals, in different camps, with different rankings and with vastly different functions. The first piece is a piano sonata by a Jewish composer in the interim camp Theresienstadt shortly before his deportation and subsequent death in Auschwitz. The second composition is a triumphant and steadfast victory song composed by a Jehovah's Witness prisoner in Sachsenhausen. The last composition is a Nazi work song sung by prisoners in Neuengamme. These three diverse works afford my audience a brief introduction to the phenomenal and perverted musical world of the Holocaust.

Reason for Participating: I enjoy the process of researching and being able to share my findings with peers and faculty in a public forum such as this. I am especially passionate about this research project since it includes original research, prominently features groups of people who are often neglected in this topic, and promotes advocacy of music.

Keara Coakley (#20)

Title: The Biggest Top Model Loser?: Body Image and Reality TV Viewership Among College Students

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: For my research project I looked at whether or not the representation of women on reality television has a direct relationship to female viewers' self-perception of beauty. In regards to reality television, viewers are often presented with the "ideal" representation of individuals within (US) society today. In order to determine whether or not the portrayal of women on reality television does in fact have an effect on the self-perception of female viewers, I distributed surveys to female, college participants. The survey consisted of questions that not only addressed how the participants view their

Coakley continued

appearance, but the amount of reality television they watch weekly. As the definition of beauty and appearance are changing, it is interesting to look at the influence that the media may have had on this.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Rowan Collins (#21)

Title: Making the Invisible Visible: Transgender Women of Color in Rochester

Faculty Sponsor: Professor Lisa Cerami, Women and Gender Studies

Abstract: By investigating the complex, intersectional systems of oppression faced by the transgender community, I began to uncover the lack of representation and visibility the TWOC (trans women of color) community in Rochester endures. Here I wish to present those findings in hopes of galvanizing those who view my research into creating a more understanding society. By recognizing the strengths and struggles of the TWOC community in Rochester when seen on a local scale, and framed nationally, we can begin to create change. It is imperative we recognize the intersections of discrimination and listen to the voices of those who are most often marginalized.

Reason for Participating: WMS 440 - Seminar in Women and Gender Studies

Taylor Cook, Kelley Ginster & Matthew Maloney (#22)

Title: Voz, Talento, y Presencia: A History of Latino Theatre in Rochester, NY

Faculty Sponsor: Professor Isabel Cordova, History

Abstract: Our group interviewed members of the Rochester Latino Theatre Company. We met outside class and recorded our conversations. This project was undertaken to either confirm or deny historical trends of Latinos in Rochester, NY. We also wanted to provide an outlet for this group's voice to be heard.

Reason for Participating: HIS 348 - History of Latinos in the US

Emily Cornish (#23)

Title: The Art of Murder: Women, Modernity, and Lustmord in Weimar Germany

Faculty Sponsor: Professor Timothy Kneeland, History

Abstract: This project began as an independent study in which focused on artworks from Germany during the Weimar Period. Under Hilary Toothe's supervision in that study I was able to examine and analyze the work of the German Expressionists and Dadaists more closely than my survey introduction allowed. The class culminated in a research paper which focused on a category of art from this time and region known as Lustmord. This paper eventually became my senior comprehensive. My goal was to track the change in female nudes from figures like those exemplified by Titian's Venus of Urbino, to figures like Otto Dix's Lustmord. Lustmord images provide valuable insights into the cultural climate of Germany at this time, and encourage viewers to be aware of gendered dimensions within art, which may spark questions about their own cultures and societies. As such it is important that we do not ignore these artworks because the subject matter is uncomfortable and disturbing.

Reason for Participating: AHI Tutorial Roc to the Englightment and AHI 499 – Art History Senior Comprehensive

Cassie Costa (#24)

Title: Do Green Bags Really Work?

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: I am finding out whether green bags really work and how long the keep fruit or vegetables fresh before they start to go bad (contain mold). I am comparing tomatoes, bananas, strawberries, and broccoli in green bags and those same foods without green bags. All of the food will be refrigerated. I did this because I wanted to figure out how long it actually lasts compared to regular zip-lock bags, and if they really do last for 30 days.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Dana Court, Megan Veno, Abbey Goings & Jaime Campbell (#25G)

Title: "Caramel Cinnamon Dolce" Latte": A Study of Computerized Communication Training for Patients with Chronic Brain Injury

Court et al., continued

Faculty Sponsor: Professor Suzanne E. Johnston, Comm. Sciences & Disorders

Abstract: The study set out to discover the results and potential client/caregiver benefits as well as clinical benefit of intensive computerized aphasia script training with individuals with chronic brain injury. Students were trained in use of the Scripts™ computer program, and then worked daily with subjects of the study over the course of the study's 12 weeks. Students completed administration and scoring on pre- and post-standardized and self-report assessments for each client. Students also recorded and scored client spontaneous speech narratives within these assessments. Client progress was monitored over the course of the study. Students were instructed in methods/guidelines for client cuing/prompting and in the creation/programming of client's individual scripts. Students provided the subjects with assistance as needed with use of the computer program. Students tabulated and tracked client progress and accuracy over the course of the study, and noted qualitative as well as quantitative data. Finally, students gathered and reported all relevant data for subsequent analysis.

Reason for Participating: CSD 516 - Advanced Clinical Techniques in Speech-Language Pathology

Cara Czechowski (#26)

Title: Dipicolonic Acid with Metal Cations as a Nutrient Source for Soil Microorganisms

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: Water contamination of heavy metals from hydraulic fracturing is an increasing threat to environmental and human safety, and an effort to find ways to remediate these waste waters is necessary (1). It has been suggested that the compound Dipicolinic acid (DPA) that is naturally produced by *Bacillus subtilis* spores is able to chelate to metal cations, specifically Ca²⁺(2) In this research we explore the possibility soil microorganisms to utilize Ca²⁺-DPA as a nutrient source. The metabolism of metal ions with DPA by soil bacteria will then allow further insight into the bioremediation of waste waters polluted by heavy metals. 1. Howarth, R. W.; Ingraffea, A.; Engelder, T. Natural gas: should fracking stop? *Nature* (London, U. K.). 2011, 477, 271. 2. Tang, T., K. S. Rajan, and N. Grecz. 1968. Mixed chelates of Ca (II)-pyridine-2,6-dicarboxylate with some amino acids related to bacterial spores. *Biophys. J.* 8: 1458-1474.

Czechowski continued

Reason for Participating: CHM 400 - Advanced Chemistry Research

Nicole Delello & Hannah Garlick (#27)

Title: A Study of Small Molecules and Their Chelating Capabilities in an Aqueous Solution

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: It is known that some small molecules naturally chelate to cations in water. One small molecule of interest is Dipicolinic acid (DPA). DPA is found naturally in certain species of bacterial spores and is well-known that DPA chelates calcium ions. Further research is being done to observe chelation to larger cations. Using UV-VIS titrations, DPA's chelating ability was studied with other heavy metals. The binding capabilities of DPA to Magnesium, Silver, Strontium, Cobalt and Iron in aqueous solution have been measured. In addition, the stoichiometry of DPA has been measured with larger cations via Job's plot.

Reason for Participating: CHM 300 – Independent Research & CHM 400 - Advanced Chemistry Research

Thomas Diller (#28)

Title: Behind the Magic: A Study of Gender Roles and Secondary Disney Animated Characters

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: This project examined the gender roles of secondary characters in Disney animated movies. This was done by conducting a content analysis of five popular Disney animated films. Disney plays a large part in the formation of societal gender roles especially in children; many studies have been done on main characters this study focused on secondary ones.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Taylor Drake (#29)

Title: Bedbugs in Long Term Health Care Facilities

Faculty Sponsor: Professor Mary Dahl Maher, Nursing

Abstract: Interviewed two administrative personnel at two different LTC facilities in two different counties. I wanted to see how they prevent and deal with bedbugs. I also wanted to see how the two facilities differed in procedures.

Reason for Participating: PBH 101 – Introduction to Public Health

Chloe Dudla & Oona Quinn (#30)

Title: What's In Your Food?

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Abstract: This project was an investigation of the financial side of buying organic foods and deciding what foods are really worth spending more on for their health benefits. This is an important issue because of the recent increase in organic awareness and the questioning of organic pesticides used on organic farms. We focused on the effects of pesticides on fruits and vegetables with and without natural protection (for example a skin, peel, or husk.) The levels of several pesticides in certain produce bought from local stores were analyzed and a demonstration of absorption of pesticides was created.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Gretchen Erlichman (#31)

Title: Bel Canto: The Beauty of the Past in the Voice of the Present

Faculty Sponsor: Professor Zbigniew Granat, Music

Abstract: "Bel Canto: The Beauty of the Past in the Voice of the Present" is a research project addressing the presence of bel canto techniques in vocal practices throughout the course of music history. Research for this project was conducted during a four-week period dedicated to the analysis and study of bel canto technique during my semester abroad in Berlin, Germany. This project explores the idea that, in carefully analyzing the

Erlichman continued

history of bel canto and tracing its origins throughout the course of vocal music history, it becomes apparent that elements of bel canto technique can be found throughout the developments of classical singing and are present in current aspects of vocal pedagogy. Through an in-depth analysis of different eras of vocal history, including the age of bel canto, verismo, Verdian style, and Wagnerian singing, this project identifies the continual presence of bel canto technique throughout the development of vocal practices. The main purpose in conducting this research project is to trace the technical aspects that define the "golden era" of singing, and follow them throughout music history, in order that this information may, in turn, come to benefit current innovations in vocal pedagogy.

Reason for Participating: I wish to participate in CARS 2014 not only because I will be given the opportunity to present my research to my academic elders and colleagues, but also so that I may be actively engaged in the academic growth and research endeavors of my generation. I believe that participating in CARS 2014 will nourish my enthusiasm for my own academic and research endeavors as well as open my mind and my interest to other fields of creative research and scholarship.

Whitney Fairchild & Brianna Miller (#33)

Title: Testing the Myths of Cut Flower Preservation

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: We are completing an experiment that tests different myths about cut flower preservation. We added different chemicals or additives to water and placed flowers in them, observing their health for a week. Chemicals and additives included sugar, lemon juice, chlorine bleach, a copper penny, and an aspirin tablet. We also used a control, using only water. This experiment will determine the best way to care for your cut flowers, and whether additive help or to hinder their preservation.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Leanna Farnand (#34G)

Title: Dual Task Training Interventions Over Seven Sessions One-Year Post Stroke: A Case Report

Farnand continued

Faculty Sponsor: Professor Elizabeth Clark, Physical Therapy

Abstract: This is a case report presentation based on treatment of a patient in the on-campus Nazareth Physical Therapy Clinic who presented with small physical limitations, but was more functionally limited because of difficulty with dual task completion. This case report presents evidence-based interventions along with pre-and post-testing to demonstrate significant improvement. Dual task training is not a large part of the physical therapy education, but was the primary need for this patient. This case study represents a student using evidence to structure an intervention progression for a unique patient case.

Reason for Participating: I would like to present.

Candice Gage (#35)

Title: Xa'jun Junam: A Testimony of Survival

Faculty Sponsor: Professor Susan Nowak, Religious Studies

Abstract: For two weeks in February, I was invited to intern with Yahad-In Unum, a leading Holocaust and genocide research organization based in Paris. I went along with a group of researchers to Guatemala where we gathered testimonies from survivors of the civil war. These testimonies will be used to form a museum in Guatemala City to educate the younger generation about the history of their country.

Reason for Participating: I want to share my experience with my fellow students to educate them on the history of Guatemala, advocate genocide awareness, and promote genocide research at the undergraduate level and beyond. It was also encouraged by Dr. Nowak who is the advisor for my Religious Studies internship, which was connected with this experience.

Annalisa Giammo (#36)

Title: Determination of the Amount of Polyphenols in Tea and Their Antibacterial Activity

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Giammo continued

Abstract: In recent years the interest in natural product that may be used as drugs or food additives is increased. After water, tea is the most diffused drink in the world and lots of previous studies have confirmed its benefits suggesting the aqueous extract as antimicrobials in food and beverages. The molecules with the antibacterial effect in tea are polyphenols that can be easily extracted from tea leaves. The purpose of my experiment is to determinate the amount of polyphenols in different kinds of tea leaves (black, green, white) using two different analytical techniques: UV-vis spectroscopy and liquid chromatography and then test the antibacterial activity of the extract against Escherichia Coli and Streptococcus Aureus. These are the two bacteria that seem to be the most sensitive to tea polyphenols.

Reason for Participating: CHM 325 - Chemical instrumentation

Meghan Grant (#37)

Title: Is It Ethical For Medicaid to Deny Coverage?

Faculty Sponsor: Professor Michelle Donahue, Physical Therapy

Abstract: As a student preparing to go into the medical field, horror stories about relationships with insurance providers abound. A class action lawsuit against Medicare about a year ago is a perfect example of one of these insurance horror stories; Medicare had been denying coverage of skilled care, such as home nursing, occupational therapy, and physical therapy, to patients Medicare had deemed incapable of improving, often senior citizens. From the standpoint of those providing medical care, progress is often defined as maintaining the same level of functioning for the older populations and therefore allowing the individual greater independence such as, for example, being able to remain in their own home rather than moving to a nursing home. I have taken this case and analyzed it using two different ethical perspectives, deontology and utilitarianism, as part of my honors thesis. As medical costs in the United States continue to rise and changes to the federal insurance systems begin to be implemented, many more changes to the medical system will ensue. Applying ethics to our distribution of scarce health care resources sheds more light on how to do so fairly and justly.

Reason for Participating: Presenting a part of my thesis before the defense and final copy are due gives me a chance to receive feedback from professors and students alike who would otherwise have never seen the project. Furthermore, I have put many hours into this project and the opportunity to share one's research is always a welcome one.

Tess Hanna (#38G)

Title: The Reported Impact of the edTPA Exam on the Field of Art Education, Art Education Programs, and Student Teachers' Future Teaching

Faculty Sponsor: Professor Tracie Glazer, Art

Abstract: For my Capstone Thesis research I looked at the reported impact of the edTPA Exam on the Field of Art Education, Art Education Programs, and Student Teachers' Future Teaching. I wanted to investigate the perceptions and experiences of Art Education professors and pre-service art educators in regards to the edTPA exam, a newly implemented high stakes teacher certification exam. In my literature review I looked at the history of teacher certification as well as the edTPA exam specifically. I then used questionnaires, focus groups, and interviews to gain my data about current perceptions and experiences with the exam. I wanted to do this research because I had taken the edTPA exam last semester and I saw how it affected my classmates, my professors, and myself, and I wanted to see whether others had any common experiences.

Reason for Participating: AED690 – Capstone Seminar

Quinton Harvey, Cody Paul, Kevin Anderson, Brad Steiger & Nathan Harris (#40)

Title: Composition: Music As Discourse

Faculty Sponsor: Professor Jennifer Bellor, Music

Abstract: The Composition students at Nazareth would like to present a poster highlighting our studies as budding composers. We would like to present compositions that we have worked on this semester and, more importantly, illustrate the compositional process that led to the finished project. Even though music is a fine art, composers spend a lot of time planning, organizing, evaluating intent, testing, and revising. It is our hope that non-music students can see similarities in their field.

Reason for Participating: The composition students would simply like to show what exactly it is that we do and share it with the Nazareth community in hopes that learning about each other's' fields will enrich our campus.

Andrea Heinlein (#41)

Title: Specific Dynamic Action of the Spotted Salamander (*Ambystoma maculatum*) Fed Domestic Crickets (*Acheta domestica*)

Faculty Sponsor: Professor Brian Witz, Biology

Abstract: This research is measuring specific dynamic action of *Ambystoma maculatum* fed domestic crickets using a Sable Systems Small Animal Respirometry system to measure oxygen consumption. By measuring oxygen consumption before and after eating, we were able to measure a difference in metabolic rate after feeding compared to the standard metabolic rate of the salamanders. The ingestion, digestion, and assimilation of food comes with energy costs for an organism. These costs include processes such as handling time of the meal, peristalsis, secretion of enzymes, nutrient absorption, transportation and waste excretion. It has been estimated that the equivalent of 10 to 30% of energy gained from a meal is required for metabolizing that meal. This needs to be studied in order to get an accurate account of a species' metabolism. The post-prandial increase in metabolic rate known as specific dynamic action needs to be accounted for in order to calculate the net amount of energy gained from feeding. We are studying this post-prandial metabolic increase to gain insight to the overarching question of why it is that animals eat what they eat.

Reason for Participating: Bio 451 - Senior Seminar II - Senior Research

Sarah Heisman & Alexander Ives (#42G)

Title: Assessment of Participating Student Perceptions and Learning in the Higher Education Student Affairs Administration Program at Nazareth College

Faculty Sponsor: Professor Diane Enerson, Higher Education Student Affairs Administration

Abstract: In an effort to operationalize learning related to the field of tests and measurements, a survey was written and issued to students enrolled in the Higher Education Student Affairs Administration (HESAA) program at Nazareth College. The survey inquired about the various perceptions, experiences, and learning associated with the inaugural cohort of the program during the course of the academic year 2013-2014. Through intensive data analysis, this project presents the findings associated with our programmatic self-study. It is our belief that this project will set the framework for

Heisman & Ives continued

future self-study opportunities for the HESAA program, in an effort to implement continuous improvement practices. Additionally, the project serves as an excellent experience in utilizing the learning, theories, and praxis associated with our studies in the field of higher education.

Reason for Participating: HESAA 556 - Tests and Measurements

Zullette Hernandez (#43G)

Title: A Survey to Evaluate Programs in Rochester, New York for At-Risk Youths Interested in Gangs

Faculty Sponsor: Professor Renee van der Vennet, Creative Arts Therapy

Abstract: A survey was created and conducted to evaluate the effectiveness of the prevention and intervention services and programs in Rochester, N.Y. that serve at-risk youths interested or involved in gang activity. The survey was emailed to directors of local community programs in the Rochester area, the directors then forwarded the email with the survey link for staff members to participate in completing the survey. The survey was created to learn what is effective and ineffective when serving the identified population. Learning the effectiveness of programs serving at-risk youths interested or involved in gang activity within the Rochester community, may provide an insight of what needs to be improved and/or implemented to decrease the crime activity, violence, and likelihood of youths joining gangs in Rochester, New York.

Reason for Participating: CAT 532 - Culminating Project Seminar II

Moudi Hubeishy, Tom Dwyer & Max Randaloph (#44)

Title: Enhancing the Bioavailability of RAGE Inhibitors: Towards New Anti-Alzheimer's Therapeutics.

Faculty Sponsor: Professor Richard Hartmann, Chemistry & Biochemistry

Abstract: Alzheimer's disease is a neurodegenerative disease characterized by the progressive loss of brain function. Over the past ten years there has been a 68 percent increase in the number of people dying with Alzheimer's, and there are currently more

Hubeishy et al., continued

than five million Americans living with the disease. A hallmark of Alzheimer's disease is the presence amyloid- β (A β) peptide, which has been directly linked to increased levels of apoptosis in neurons. The Receptor for Advanced Glycation End products (RAGE) has been shown to be up regulated in Alzheimer's disease and to mediate A β peptide transport across the blood brain barrier. Previous research has resulted in the design of a lead molecule which inhibits RAGE mediated A β transport. In this investigation, we set out to optimize the bioavailability of the lead compound by enhancing its hydrophilic properties via the addition of hydrogen bonding groups. Several analogs of the lead compound were synthesized using two basic schemes. The effect of these modifications on solubility and RAGE inhibitory potency will be described.

Reason for Participating: CHM 300 – Independent Research

Ramla Ibrahim & Mariah Mersereau (#45)

Title: Dirtier Than a Toilet Seat?

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Abstract: There is a common myth that nothing is dirtier than a toilet seat. This experiment investigated this myth by comparing the cleanliness of a toilet seat to objects commonly handled every day, such as a cellphone, door handles, light switch, computer keyboard, shopping cart handle and a TV remote control. Specifically, we analyzed how much bacteria grew after swabbing each object.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Gabrielle LaBare (#46)

Title: Twin Styles: Classical vs. Neoclassical

Faculty Sponsor: Professor Zbigniew Granat, Music

Abstract: Last semester for MUS 317: Western Music III students were assigned a research paper on a topic of their choosing which related to twentieth century music. At

LeBare continued

the time I was also taking MUS 423: Form and Analysis which focused on the classical forms of the first Viennese School. Classical forms were balanced, clear, and proportional. Each was organized of small segments that would combine to create tight-knit forms that held common theoretical and formal outlines. As time passed, composers desired to move away from these structured disciplines. In Western III we touched on Neoclassical music, a twentieth century practice developed between 1920 and 1950, which referenced back to material that was created in the Classical Era. I focused on Igor Stravinsky, who remained fairly diatonic in his Neoclassical works. His first Neoclassical piece, Octet for Wind Instruments written in 1923, held several comparisons Classical music, mainly through form. I compared forms of the Classical and Neoclassical eras, finding them almost identical. In my poster, I will compare the two musical styles and demonstrate that Neoclassical music was brought about by the awareness of the viability of tradition and the historical style of classical music.

Reason for Participating: I have chosen to participate in CARS to gain experience in presenting my academic research to my peers.

Ruby Lananger (#47)

Title: Explosive Soda

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: I will be showing a poster on the experiment I did with different types of sodas and different types of mentos.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Peter Lane (#48)

Title: Does Adding Salt to Water Actually Help Pasta Cook Quicker?

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: 1) I tested cooking various types of pasta in water with various amounts of salt content. 2) I did it by boiling water and adding salt to pots and boiling pasta. 3) I did it to test the age-old kitchen advice that adding salt to water actually helps pasta cook

Lane continued

quicker. It could be useful because if the advice is true it could potentially save time in a busy kitchen either at home or in a restaurant.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Briana Laubacker (#49)

Title: Analysis of Loose-Leaf and Bagged Green and Black Teas by High-Performance Liquid Chromatography.

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: There are many benefits associated with drinking tea. Although loose-leaf teas have better flavor than bagged teas, many people use tea bags instead of loose tea leaves. This may be due to the convenience and lower cost of using tea bags. Tea contains significant levels of catechins, which are associated with the flavor, quality, and health benefits of teas. Studies have suggested that loose-leaf teas also have higher catechin levels than tea bags. Other main components in tea include theobromine and theophylline. In this study, some of these main tea compounds and catechins have been determined in samples of loose-leaf and bagged green and black teas.

Reason for Participating: CHM 325 - Chemical Instrumentation

Mary Lawrence (#50)

Title: Grimm's Märchen in 20th Century Germany

Faculty Sponsor: Professor Lisa Cerami, Foreign Languages & Literature

Abstract: As Germany underwent rapid political and social changes in the 20th century, the culture of fairy tales remained strong among the country's people, though their reaction was reflected in the choice to tell specific tales- and in some cases, to change parts of these tales- at certain points in the century. This poster will present research on the fairy tales that were popular in Germany at this time and the social situations that may have been affected them or been affected by them. My research will also be presented at an Undergraduate Conference in German Studies in Pennsylvania on April 12th.

Lawrence continued

Reason for Participating: I wanted to have a chance to research a topic of my own choice, outside the classroom. This program gives me a chance to practice presenting my research in an environment I already know.

Matthew Leverich & Serena Spano (#52)

Title: Tin (II) Iodide as a Lewis Catalyst in Esterification Reactions

Faculty Sponsor: Professor Richard Hartmann, Chemistry & Biochemistry

Abstract: For the past two semesters, we have focused on the esterification reaction of methanol and acetic acid with the use of a Lewis Acid catalyst, Tin (II) Iodide. The esterification reaction showcases an alcohol and a carboxylic acid, and can be aided by an acid catalyst. The reaction yields methyl esters which can yield energy if consumed properly. We have found that methyl esters have been produced; however, it is a very slow process under the current conditions under which we have been operating. Our work delves into the strengths of Tin II Iodide as the catalyst as a catalyst and also showcases the use of acetic acid as the carboxylic acid. The goal is to study the mechanisms of the reactions, so that vegetable oil can soon be imputed into the reaction. Waste vegetable oil can be a vital component to solving the energy crisis that is incumbent upon us. The methyl esters produced via the esterification reaction of vegetable oil can be used as a component of biodiesel for fuel. In studying esterification reactions, it is our hope that we can study the mechanisms of the reactions to best determine how to quantify and speed the production of the methyl esters, so that biodiesel can become an economical and practical form of energy from the use of waste vegetable oil.

Reason for Participating: CHM 300 – Independent Research

Deanna Levy, Lauren Simonsen, Taylor Drake & Lauren McCaffrey (#53)

Title: Golden Flyers Grocery Service

Faculty Sponsor: Professor David W. Steitz, Psychology, Gerontology

Abstract: We came up with a community service project that helps older adults - a grocery shopping and delivery service. This project required a lot of time and effort to coordinate. With this grocery service, Nazareth student athletes go to the homes of older

Levy et al., continued

adults in the surrounding community, compile their grocery orders, go to Wegman's, fill their orders, and bring the groceries back to them. We sat down with the older adults and made their grocery lists with them using Wegman's site. With the site, groceries are itemized and the total cost of groceries is available. My class group, along with students in the Gerontology Club, visited the older adults in their homes and helped them make their grocery lists. Then, the Nazareth student athletes completed the grocery orders. We conducted research to find the benefits that the older adults have received through being a part of our program. We also researched how the attitudes and opinions toward older adults changed for the student athletes through participation in our program.

Reason for Participating: PSY 355 - Aging & Community Service

Steven A. Lewis (#54)

Title: Changing Perspectives on American Opportunity

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: The "American Dream" is something that most people in the U.S. strive toward. It helps define our culture and leads us in the direction of progress, but what happens when the citizens begin to perceive that this dream is no longer attainable? A survey was administered to various Nazareth College faculty and students to determine if there were generational differences in perceptions of social mobility opportunities. If younger generations perceive less opportunity for social mobility, this could be a reflection of there being less opportunity. Additionally, within the context of the "American Dream" these negative perceptions may create cognitive dissonance.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Alyssa Lindstrom (#55G)

Title: Novice Art Teacher: Development of Curriculum for a 4th-8th Grade Animation Elective

Faculty Sponsor: Professor Tracie Glazer, Art

Lindstrom continued

Abstract: I would like to showcase my research for my Capstone Thesis. I did an action research study of my PowerPoint Animation class that I teach at a local school. I am studying how I can use students anticipated learning outcomes to create a more effective curriculum. I chose to do it because the field for Art Curriculum especially in Animation is limited and I also want to improve my own teaching. I am collecting the data through interviews with administration, questionnaires from the students and my own journal reflections. This research will hopefully create tangible data that I can bring into my own classrooms and the field.

Reason for Participating: AED690 – Capstone Seminar

Cherise Madigan (#56)

Title: Exportable Health Care Reform: A Comparative Analysis of the United States and Switzerland

Faculty Sponsor: Professor Olena Prokopovych, Political Science

Abstract: The politics behind health care impacts the effectiveness of services, the cost incurred by citizens, and the economic burden placed on the central government. The effectiveness of the health care system over all is one of the primary components of the strength of a social welfare state. Switzerland serves as a prime example for the United States due to the similarities between the two nations and their health care policies. While Switzerland successfully passed health care reform via popular referendum in 1994, with continual adjustments made since then, the United States has struggled with reforms enacted by the ACA since its passage in 2010. I explored the question of whether the example of Switzerland's ongoing reform process can provide any insight into the next stage of reform in the United States. Methodologically I utilized previous scholarship on the role of health care in the social welfare state and current economic data. I contend that Switzerland's experience with ongoing reform can serve as a transferrable example throughout the process of implementing the ACA. I primarily focus on the applicability of Switzerland's practice of continually adjusting the law in the years after its passage, strengthening the policy over time.

Reason for Participating: PSC 342 - United States Social Policy

Michael Martin (#57)

Title: The Art Therapists' Primer: A Clinical Guide to Writing Assessments, Diagnosis, and Treatment (2nd ed)

Martin continued

Faculty Sponsor: Professor Ellen G. Horovitz, Creative Arts Therapy

Abstract: 1.) I am assisting Dr. Ellen Horovitz in writing the second edition of her book, *The Art Therapists' Primer*. 2.) I have co-authored one chapter with Dr. Horovitz which is based on a literature review that I wrote. I am authoring a standalone chapter which focuses on quantifying four non-standardized art therapy assessments. Additionally, a paper that I wrote for an earlier class will be included in the book as a case study. I have also filmed two art therapy sessions which will be posted online as supplemental material to the textbook. 3.) As Dr. Horovitz's Graduate Assistant, I was approached to assist her with the book. Based on my level of writing, I was later asked to author a standalone chapter. While researching the topic for the chapter I authored a literature review which was then adapted and also included in the text.

Reason for Participating: CAT532-03 Culminating Project Seminar. [In addition to CAT532-03 this project is also a part of my Graduate Assistantship with Dr. Horovitz.]

April Mashaw & Dana Donnelly (#58)

Title: Effectiveness of Paper Airplanes

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Abstract: Different models of paper airplanes were created and analyzed based on their distance of flight, speed of flight, and accuracy to determine the most effective design. We accomplished this by testing each model plane three times in each category by comparing the data. The plane model that ranked the highest in all three categories was the design found to be the most effective.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Aryka Mason (#59)

Title: Dying for a Tan: An Exploration of Health Concerns Among Indoor Tanning Customers.

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Mason continued

Abstract: It is fairly common knowledge that tanning is simply not good for you, yet many in the US continue to utilize indoor salons. I wanted to know if their health played a role in their decision making process, and wondered if the negative side effects of this practice were considered. I interviewed a group of tanners to find how they make the decision to engage in indoor tanning. I chose a convenience sample of individuals who are currently utilizing tanning salons or have visited them in the past. I used a semi-structured interview method to ensure that I received information pertinent to understanding the decision making processes of tanners. These findings have public health implications.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Alicia Morley (#60G)

Title: What is the Lived Experience of Someone that Uses Art to Reduce Anxiety?

Faculty Sponsor: Professor Renee van der Venet, Creative Arts Therapy

Abstract: My research question originated from my personal interest in understanding the ways in which art has been of therapeutic value in reducing anxiety for clients. Therefore, I contacted art therapy clinicians about potential clients that met specific criteria and who would be willing to talk about their experiences inside and outside of art therapy to gain a phenomenological perspective of art's therapeutic characteristics. One clinician offered this opportunity to clients; several found interest and were interviewed for an average of 25 minutes. Follow-up interviews were then conducted for clients who were willing to bring personal artwork and discuss their experiences creating these pieces.

Reason for Participating: CAT53201-14SP Culminating Project Seminar II - 14SP

Abi Moss (#61)

Title: A Study of Trade Between New Zealand and The United States

Faculty Sponsor: Professor Rochelle Ruffer, School of Management

Abstract: The goal of this project is to apply the economic theories learned in International Business Economics to a particular country. In my project, I researched

Moss continued

the economic data of New Zealand. In particular, using modern trade theories, I discuss how the trade models correspond with the data of goods traded between New Zealand and the US for the past 10 years. In addition, I examine the exchange rate between the New Zealand Dollar and the US Dollar over the past ten years to identify periods of extreme appreciation and depreciation. I then discuss the predicted impact of chosen economic policies on the exchange rate and discuss whether the theoretical models played out in the real life data.

Reason for Participating: ECO 349G - International Business Economics

Catherine Neno & Chelsea Sommer (#62)

Title: Learning More Than English: A Reciprocal Process of Multicultural Collaboration

Faculty Sponsor: Professor Dawn Vogler-Elias, Comm. Sciences & Disorders

Abstract: For our senior seminar Case Studies class we engaged in service-learning with the community at Mary's Place in downtown Rochester. Mary's Place is a refugee outreach center that serves the community by providing various resources to ease people's transitions into the American culture. Each week we facilitated English language learning in a preschool classroom by implementing multi-modal lesson plans with a focus on building vocabulary. In addition, we assisted a beginner's class of adult English language learners. Over time, we expanded our work with the Mary's Place community to involve the school-aged youth in a volunteer opportunity. Many individuals at Mary's Place have received help from others in the past. We wanted to inspire our school-aged group of students to recognize their own strengths and to help them reflect on the many ways in which they can contribute to the greater Rochester community.

Reason for Participating: CSD 457 - Case Studies

Jesse Nicolay (#63)

Title: Sequences and Series

Faculty Sponsor: Professor C. Yousuf George, Mathematics

Nicolay continued

Abstract: 1) I am currently enrolled in a math course, Calculus III that focuses on sequences, series, and integrals. I am currently learning about these limits and am in the process of solving a related problem. As I solve each step, my faculty sponsor provides me with a new step in the problem. 2) I am currently solving the problem, but I am using limit tests to evaluate series. 3) I am solving this problem to find the pattern and evaluate the series.

Reason for Participating: I would like to participate in CARS to further my education in math. The assignment provided by my faculty sponsor will challenge my quantitative analysis skills, which will contribute my growth as a student. Furthermore, I would like to contribute to the academic community at Nazareth College.

Goodwell Nzou (#64)

Title: The Analysis of the Effect of Counter Ions on *Basillus Subtilis*

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: The activity of ions at aqueous interface is believed to be critical for many physical and chemical processes in biological systems. The effect of metal ion with respect to their counter ions from metallic compounds have not been evaluated in a great detail. Previous experiments have shown that the use of dipicolinic acid as a source of fuel in controlled experiments with *Basillus Subtilis* is dependent on the presents of calcium cation bound to DPA in a specific manner. In this experiment we seek to evaluate the effect of calcium cation with respect to different anions and the possible toxicity of calcium compounds to *Basillus Subtilis*.

Reason for Participating: To share the findings with other scientists

Karlie O'Gara & Kaelyn Downey (#65)

Title: How Effective is Your Face Wash?

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

O'Gara & Downey continued

Abstract: With all of the media we are exposed to, "perfect skin" has become something that we all strive to obtain. The purpose of this experiment was to test the claims of generic and name brand acne face washes, and to see whether or not we are getting our money's worth. In theory, more expensive brands are stronger and more effective and therefore will kill more bacteria. In this experiment, E.coli. was the bacteria used to test the effectiveness of each face wash.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Amelia O'Leary (#66)

Title: Conflict of Cultures: How the NSA Scandal Affects Germany's and the United States Relationship and Why the Damage between the Two Needs to be Recognized.

Faculty Sponsor: Professor Lisa Cerami, Foreign Languages & Literature

Abstract: Conducted research on current events about the NSA scandal and the relationship between Germany and The United States. Did this for my final paper for my European Union Economy class while in Germany.

Reason for Participating: As I state in my paper, I feel that knowing the NSA scandal from a German point of view is vital for repairing German-US relations.

Allison O'Neil (#67)

Title: Synthesis of Small Molecule Receptors for Binding Cations

Faculty Sponsor: Professor Stephen Tajc, Chemistry & Biochemistry

Abstract: Heavy metal pollution has been causing problems with the purity of our fresh water supplies. A history of mining has led to heavy-metal contamination of both ground and surface water in many areas of the United States. Small molecule receptors that bind cations in aqueous solution may have potential as a water purification technique. Dicolinic acid (DPA) is a small molecule formed in bacteria spores and is known to chelate calcium. DPA, which has been found to aid in heat resistance for the bacteria endospores², may also have potential as a small molecule that binds larger heavy metal cations. Our research focuses on the structure activity relationship of DPA and DPA

O'Neil continued

derivatives to determine the fundamental binding characteristics of DPA:cation interactions in aqueous solution. References: 1. "Ground-Water Contamination by Heavy Metals - Tar Creek, Oklahoma." Ground-Water Contamination by Heavy Metals. U.S. Geological Survey, 10 Jan. 2013. Web. 12 Sept. 2013. 2. Gerhardt, P., and R. E. Marquis. 1989. Spore thermoresistance mechanisms, p.43-63. In I. Smith, R. A. Slepecky, and P. Setlow (ed.), Regulation of prokaryotic development. American Society for Microbiology, Washington, D.C.

Reason for Participating: CHM 300 – Independent Research

Alana Page (#68)

Title: Effects of Musical Elements on Film Tone

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: I will be analyzing 20 second clips of every action scene in five separate movies. Specifically, I will examine the music accompanying these scenes for the speed of the tempo, presence of rising or falling scales, high- or low-pitched melody, and the dominant type of instrument in order to determine if there are any similarities in compositions created for action scenes. In order to do this, I will use the program Garageband to assist in identifying the speed of the tempo. A tempo exceeding 110 beats will be marked on a 0-1 scale as having a fast tempo, while a tempo below 70 beats will be marked as having a slow tempo. All other elements will be marked on a 0-1 or yes/no scale in order to determine their presence. In action scenes, I expect to find compositions with faster tempos, rising scales, low pitch, and percussion instruments. The purpose of this experiment is to identify the similarities in musical compositions that successfully convey an adrenaline-rushing or exciting tone to accompany action scenes in films. This will help to easily identify which components to use when creating music in order to successfully convey the tone and meaning of the scene.

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Kayla Page, Julie Moretti, Sarah Wazenkewitz & Claire Sobraske (#69)

Title: Investigation of the Expression of Recombinant Intimin and TIR Proteins in E. coli Cells

Page et al., continued

Faculty Sponsor : Professor Lynn O'Brien, Chemistry & Biochemistry

Abstract: Enteropathogenic and enterohemorrhagic E. coli (EPEC and EHEC) cells that attach to human intestinal epithelium result in the formation of effacing lesions, which is the precursor of intestinal cell membrane disruption and diarrhea in infected individuals. Two proteins, intimin and the translocated intimin receptor (TIR) play an essential role in attachment to intestinal epithelial cells. E. coli first expresses TIR, which is translocated to the host cell via a type-III secretion system. TIR then becomes immobilized in the intestinal epithelium with its intimin binding domain exposed on the intestinal cell surface. Intimin, from the E. Coli surface, then binds TIR and attaches the E. coli cell to the intestinal epithelium, which leads to lesion formation. These types of infections can take up to 24 hours to diagnose and there has not yet been a small molecule developed to speed up this diagnostic process, prevent further infection, and allow sooner initiation of treatment. The initial expression of recombinant TIR and intimin proteins and their purification will be discussed.

Reason for Participating: CHM 160 – Investigations in Chemistry, CHM 300 – Independent Research & CHM 400 - Advanced Chemistry Research

Kirstin Pecorella, Katie Rhea, Kasey Smith, Alexandra Argentieri & Erika DiNatale (#70)

Title: Going the (Equi-) Distance

Faculty Sponsor: Professor Dawn Vogler-Elias, Comm. Sciences & Disorders

Abstract: This poster will showcase the Service Learning Project for the class CSD 457 Case Studies and our journey at the Equicenter. We helped fundraise for their Paddles for Saddles event; this event helps raise money to provide vital therapeutic equestrian programming to foster the personal growth and individual achievement of people with disabilities, at-risk youth, Veterans, and their families.

Reason for Participating: CSD 457 - Case Studies

Derek Peterson (#71)

Title: Lunkin', Lungin', and Leg Liftin': A Micro-Sociological Study of Interactions at the Gym

Peterson continued

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: Some of the most mundane aspects of social life provide the most interesting opportunities for scholarly research. The daily trip to the gym is one such opportunity. Although on the surface it seems unimportant, the interactions that occur at the gym reflect greater social arrangements and patterns. Gender norms at the gym were focused on extensively in addition to how gym goers interact with each other in ways that support larger social structures.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Stephanie Pieklik (#72)

Title: Making the Invisible Visible

Faculty Sponsor: Professor Lisa Cerami, Women and Gender Studies

Abstract: I performed research about the mission and philosophy of Nazareth College, and analyzed the different levels of participation and engagement among students on campus to determine how well our levels of civic engagement and volunteer work reflect our mission statement.

Reason for Participating: WMS 440 - Seminar in Women and Gender Studies

Elizabeth Pinto (#73)

Title: A Study of Trade Between Thailand and the United States

Faculty Sponsor: Professor Rochelle Ruffer, School of Management

Abstract: The goal of this project is to apply the economic theories learned in International Business Economics to a particular country. In my project, I researched the economic data of Thailand. In particular, using modern trade theories, I discuss how the trade models correspond with the data of goods traded between Thailand and the US for the past 10 years. In addition, I examine the exchange rate between Thailand currency and the US Dollar over the past ten years to identify periods of extreme appreciation and depreciation. I then discuss the predicted impact of chosen economic

Pinto continued

policies on the exchange rate and discuss whether the theoretical models played out in the real life data.

Reason for Participating: ECO 349G - International Business Economics

Eleanor Poore (#75G)

Title: Frequency of Eating Disorder Symptomology Among College Students as Measured by the Eating Disorders Inventory (EDI-3) and Draw-a-Person (DAP) Assessment

Faculty Sponsor: Professor Renee van der Vennet, Creative Arts Therapy

Abstract: 1) I conducted quantitative research measuring eating disordered symptoms among college students as well as assessing the validity of a projective drawing assessment. 2) I recruited volunteers to participate in this study. Each participant completed the Draw-a-Person (DAP) Assessment and the Eating Disorders Inventory (EDI-3). Both the DAP and EDI-3 were scored according to a set procedure based on previous research and literature. These scores were then compared and graphed in Excel and SPSS to find correlations or other relationships among the data. 3) I conducted this research because eating disorders are a serious disorder that is more common than the average individual may guess. I wish to raise awareness and decrease the stigma surrounding eating disorders, recognition, and seeking help.

Reason for Participating: CAT 532 - Culminating Project Seminar II

Michelle Price (#76G)

Title: The Study of Therapeutic Process during a Personal Growth Sandtray Group

Faculty Sponsor: Professor Stephen Demanchick, Creative Arts Therapy

Abstract: A four-week sandtray based personal support group will be held for undergraduate students. The purpose of this study is to investigate participants' attitudes about the helpful aspects of creating sandtrays during a personal growth group. The investigators are most interested in the understanding which elements of the therapeutic experience are most helpful to each participant. In addition, the secondary purpose of this research is to investigate the treatment processes or movements during the therapeutic sandtray experience, types and frequency of miniatures used, and the content of participant

Price continued

verbalizations in relationship to the creation and processing of a sandtray. Data will be analyzed both qualitatively and quantitatively.

Reason for Participating: To have the opportunity to present my thesis research.

Anne Pysnik (#77)

Title: Hydroponic Removal of Bisphenol A by Phytoremediation

Faculty Sponsor: Professor Stephanie Zamule, Biology

Abstract: Bisphenol A (BPA) is a chemical widely used in industry today to create polymers including epoxy resins, polyesters, and polyacrylates. Unfortunately, research has found evidence indicating that BPA acts as an endocrine disruptor by mimicking the hormone estrogen. Research at Nazareth College was conducted to evaluate the ability of three different plant species to remove the chemical Bisphenol A from hydroponic solutions. If successful, these plants could then be utilized to remove BPA from contaminated soil and water. While conducting the research, inconsistencies in data forced students and faculty working on the project to utilize critical thinking skills and determine what element of the research process was causing incoherent results. After several weeks of analyzing data and testing methods, flaws in the research methodology were identified and new methods developed to correct them. This effort has been a large asset to students currently conducting their senior research projects on BPA phytoremediation, and will continue to be utilized for further research occurring in the summer of 2014.

Reason for Participating: It is important to introduce and educate others on the significant research occurring at Nazareth College. Many individuals, regardless of their educational background, are not aware of the many serious environmental issues taking place today. CARS offers an opportunity to not only educate others on concerning environmental issues, but also on the steps we can take to address those issues.

Katherine Race, Jennifer Rappleye, Elizabeth Vavra, Chelsea Vosburgh & Claire Willsea (#78)

Title: An Exploratory Study of Public Health Issues in Western Belize

Faculty Sponsor: Professor Mary Dahl Maher, Nursing

Race et al., continued

Abstract: Short study trip to Western Belize to do participatory action research with a focus on public health. We visited, interviewed key informants and provided health promotion and disease prevention activities. Sites included both urban and rural hospitals, clinics as well as specific senior living centers. This experience provided direct observation of a global health system in a low to middle income country.

Reason for Participating: PBH 102 - Global Health

Erica Randall (#79)

Title: "Happily Ever After" After Graduation? Variables Shaping College Students' Views of Monogamous Relationships

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: Dating behavior of college students, or lack thereof, has been widely studied. One focus has been the shift from monogamous relationships to hooking up. This study examined whether gender, athletic participation and drinking behavior shaped the likelihood that college students want to be in monogamous relationships. This study is important because collegiate relationships form the basis for future experiences in marriage.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Tim Rappold (#80)

Title: Different Corrosion effects on Steel Wool

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: Using two different coarseness grades of steel wool, we tested the corrosion effects with four different liquids (water, water and vinegar, water and salt, and water and apple vinegar).

Reason for Participating: SCI.Q103L – Investigations in Physical Science

Colleen Rasmussen (#81)

Title: Trauma-Informed Housing and the YWCA

Faculty Sponsor: Professor Leanne Wood-Charlesworth, Social Work

Abstract: 1) The Social Work Research Methods class met with the YWCA staff regarding their research needs. As a result of this meeting, the students conducted two focus groups with women residing at the YWCA to guide trauma-informed services and housing. 2) YWCA staff recruited participants and collaborated with Nazareth students to develop a focus group guide. Two students co-facilitated each group; additional students documented group discussion. Content analysis of the resulting qualitative data identified key group themes. Findings including recommendations for program improvement were shared with the YWCA stakeholders. 3) Trauma permeates the lives of women served by the YWCA. The groups were conducted at the YWCA's request to improve housing programming and other services, in particular to obtain suggestions regarding trauma-informed approaches.

Reason for Participating: SWK 352 - Research Methods

*Marnie Reynolds, Amy Gettig, Emily Beckley, Jenn Espinal,
Julia Teran-Pulford & Erica Rayworth (#82)*

Title: Stepping into Service Learning

Faculty Sponsor: Professor Dawn Vogler-Elias, Comm. Sciences & Disorders

Abstract: Our group volunteered throughout the semester at Stepping Stones Learning Center. We worked on social communication through their coffee house program for individuals with intellectual disabilities. The poster is a summary of our project and what we learned.

Reason for Participating: CSD 457 - Case Studies

Lindsay Sherling (#84)

Title: Therapyology at Mary's Place: What Do I Want to Be When I Grow Up?

Sherling continued

Faculty Sponsor: Professor Sue Kwiatkowski, Comm. Sciences & Disorders

Abstract: Research has shown that there is an underrepresentation of diverse populations in the health care fields. A diverse healthcare workforce will help ensure adequate and culturally competent health care for underserved populations (Jordan, 2002). Nazareth CSD clinicians, along with Social Work and Art Therapy Graduates run an after school program for children that arrive to the US with refugee status. The majority of the children aspire to be doctors. It is unclear why this is their aspiration or if they are aware of other professions in the health care fields. Therapyology is an interactive, informative event involving Speech/Language, Physical, Occupational, Art, Music Therapies, Nursing and Admissions. Its purpose is to educate this diverse group of children about the many opportunities and professions available in the health care field. Pre and post surveys will be used to check knowledge and interest level for the different professions. It is expected that the students will be more knowledgeable and interested about the different careers in the health care field. Jordan J. Cohen, Barbara A. Gabriel and Charles Terrell The Case For Diversity In The Health Care Workforce Health Affairs, 21, no.5 (2002):90-102

Reason for Participating: To highlight the involvement of students and faculty of the School of Health and Human Services with the children at Mary's Place.

Lindsay Sherling & Kassandra Lathrop (#85)

Title: Using Explicit Instruction to Teach Small Talk to Young Adults

Faculty Sponsor: Professor Mary Kay Bradley, Comm. Sciences & Disorders

Abstract: Using a classroom-based model, two CSD student clinicians pushed into the LifePrep classroom to work with 6-8 LifePrep students once a week for 60 minutes. The topic of the sessions was teaching social communication, an important aspect of a conversation needed for building relationships, academic success and obtaining and maintaining competitive employment. Four sessions addressed small talk exclusively; two sessions focused on using small talk to navigate the conversation. Small talk was taught using explicit instruction, an instructional technique using clear descriptions, demonstrations, providing practice of that skill, and giving appropriate feedback. The CSD clinicians taught the basic tenets and provided opportunities for application. Using

Sherling & Lathrop continued

explicit instruction as a framework for teaching, the lesson began by posing essential questions, discussing the relevancy of the skills and explaining prerequisite skills. The clinicians demonstrated and described small talk using clear, consistent and concise verbal and nonverbal language and levels of scaffolding. Using the models, the students engaged in small talk, solidifying application of their knowledge and skills. Pragmatic skills are the greatest area of deficit for speakers with people with intellectual disabilities, including ASD, making social language a part of a Speech Language Pathologists scope of practice.

Reason for Participating: Interested in doing research.

Katelyn Sorensen, Alex Massaro & Kelly Hughes (#87)

Title: The Effects of Various Drinks on Tooth Enamel

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Abstract: We are often told that certain drinks can have a negative effect on tooth enamel. The effects of various drinks on tooth enamel was investigated by testing five different liquids, coffee, soda, juice, wine, and milk, on human teeth. The teeth were submerged into the different liquids for various lengths of time to determine the effects. In addition, the effects of brushing the teeth with toothpaste were tested to conclude whether or not brushing can counteract the negative effects of these beverages on tooth enamel.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Eric Stevens (#88)

Title: A Study of Trade Between Hungary and the United States

Faculty Sponsor: Professor Rochelle Ruffer, School of Management

Abstract: The goal of this project is to apply the economic theories learned in International Business Economics to a particular country. In my project, I researched

Stevens continued

the economic data of Hungary. In particular, using modern trade theories, I discuss how the trade models correspond with the data of goods traded between Hungary and the US for the past 10 years. In addition, I examine the exchange rate between the Hungarian forint and the US Dollar over the past ten years to identify periods of extreme appreciation and depreciation. I then discuss the predicted impact of chosen economic policies on the exchange rate and discuss whether the theoretical models played out in the real life data.

Reason for Participating: ECO-349G - International Business Economics

Elana Tontarski & Goodwell Nzou (#89)

Title: Investigation of the Effect of Alcohol Size on the Methylation Kinetics of Oleic Acid Catalyzed by SnBr₂

Faculty Sponsor: Professor Richard Hartmann, Chemistry & Biochemistry

Abstract: Previous work in our group has shown SnX₂ (X=F, Cl, Br, I) as effective catalysts with a reaction rate trend of I>Br>Cl>F. In an effort to deduce the mechanistic pathway, we have designed a series of experiments to investigate the steric effect of different alcohols. We are evaluating the effect of the steric bulk of methanol and ethanol.

Reason for Participating: We are encouraged by our research professor to participate in CARS and present what we have been doing this semester.

Shannon Troutman & Lori Posato (#90)

Title: Pushing Food Freshness to Its Limit

Faculty Sponsor: Professor Kelly Hutchinson-Anderson, Chemistry & Biochemistry

Abstract: The rate of the "browning" process of different types of fruits and vegetables when altering the methods of preservation and/or storage was investigated. We tested the preservation of apples, avocados, bananas, and lettuce. Our methods of prevention that were tested include using a sealed container with a piece of paper towel, lemon juice dripped on fruit, soaking in Sprite (c), and blanching. The reason for this experiment

Troutman & Posato continued

was to determine the best combination of a long lasting freshness without compromising the taste of our food.

Reason for Participating: SCI.Q101 - Integrated Science Inquiry

Oksana Tymkiv (#91)

Title: When Did Women Gain Access to Universities in German-Speaking Countries?

Faculty Sponsor: Professor Birgit Deir, Foreign Languages & Literature

Abstract: With my passion for the German language and culture and because I am discovering the importance of the history of women, I have planned to invest a great deal of my time in order to educate myself and those around me about the times in which women were primarily allowed to be educated. In the year of 2014, I am a 19-year-old young woman, alive with the free-will rights to education, growth, and success in my future. However, there are many women around the world today who still do not have the right to these choices. Due to the tragic history of Germany and along with my experience of studying and living in the country, I am very interested in researching and presenting the case of the education of women in that part of the world. I believe that it is significantly important to understand and appreciate simple human rights. With my research, knowledge, and personal experience, I plan to present to the Nazareth College community how women in the German-speaking world gained access to this crucial human right.

Reason for Participating: I thoroughly enjoy researching, writing and presenting. I am very interested in conducting and presenting this research topic to the Nazareth College community!

Clara Weinert (#92)

Title: Optimization of Growth and Enzyme Production of Cellulolytic Microorganisms

Faculty Sponsor: Professor Lynn O'Brien, Chemistry & Biochemistry

Abstract: This research involves the examination of various microbes that can break down cellulose into simpler sugars like glucose. It is hoped that this research will lead to

Weinert continued

more efficient manufacture of biofuels by using the cellulose enzymes that these microbes produce convert cellulose to glucose that can then be fermented into ethanol. Efforts involve optimizing growth and enzymatic production by varying media components, pH, and temperature. This study began with eight microbial colonies, but has been narrowed down to five-two fungal colonies and three bacterial colonies. Sources for cellulolytic microbes are plentiful, with the ones being researched here coming from horse manure, a bacterial bark infection, two species from a compost heap and one colony that arose spontaneously on selective media. The microbes were chosen by first growing them on a media that used carboxymethylcellulose as the sole carbon source. Then a qualitative activity test was performed, which allowed for the colonies with the most cellulolytic enzyme activity to be chosen for further research.

Reason for Participating: CHM 300 – Independent Research

Margaret West, Katie Kempf, Jennifer Logan, Jeanmarie McCarthy, Xuan He, Katelyn Watkin, Lisa Lindenbaum, Louise Ly, Eric Hauck, Kevin Anderson, Elizabeth Abt, Sara Banker & Emily Chin (#93)

Title: The Etude: Piano Pedagogy from 100 Years Ago

Faculty Sponsor: Professor Beverly Smoker, Music

Abstract: The Etude magazine, founded in 1883, covers piano literature, history, technique, music's involvement in culture, and contains articles discussing important educators, performers, and concerts. The study and execution of pedagogy- the method and practice of teaching- is a major component. The Nazareth Piano Ensemble has undertaken the project of researching piano music and pedagogy as presented in The Etude from 1913-1914 to illuminate piano pedagogy as it was practiced 100 years ago. The areas of creating studio policies, harnessing effective teaching techniques, learning musical functions and repertoire, developing technique, synthesizing natural expression, developing musical skills, and creating healthy psychological environments with music were all studied in an attempt to best prime teachers and students to attain their musical capacities. These different aspects of pedagogy will be dissected in articles found in The Etude and compared with one another to highlight the developing nature of pedagogy and how it continued to evolve in the following hundred years. With the increased importance of pedagogy in all fields of academia, it's important to show how

West et al., continued

various concepts within our area of study should be utilized to improve the overall experience of both learning and teaching piano.

Reason for Participating: ENS091 - Chamber Players Piano

Melanie West (#94)

Title: Living Liberal Arts: A Bridge For My Back

Faculty Sponsor: Professor Rachel Bailey Jones, Women and Gender Studies

Abstract: Liberal arts embraces life. In life there is no option to compartmentalize experiences in a singular field, time or talent. Thus liberal arts prepares students for pluralism. This makes a cross field education essential. The poster "Living Liberal Arts: A Bridge for my Back" offers itself as a case study. "Living Liberal Arts" will display how a studio art degree can be strengthened by an exposure to Women and Gender Studies. Gender conscious theories concerning intersectional politics and critical pedagogy will highlight the evolution of my artistic process in an independent study that required the use of feminist theory as artistic inspiration. Through a conceptual summary of a self-portrait, the poster will showcase the history, theory, and academic pluralism necessary to make politically engaged art work. "Living Liberal Arts: A Bridge for my Back" demonstrates the empowering academic intrigue Women and Gender Studies can offer when shaping an artistic identity.

Reason for Participating: WMS 302 - Gender and Education

Sara Wetzel, Jennifer Espinal & Emily Olsen (#95)

Title: College Students, Facebook, and Academics: Like or "Dislike"?

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: Following up on a pilot study two years ago, this research examines how college students use Facebook for school related purposes. A survey was created and distributed via Facebook to a snowball sample of college and graduate students with Facebook accounts. Respondents were asked about their the frequency of their Facebook use for various school related activities, as well as their attitudes about how

Wetzel et al., continued

they felt Facebook affects their academic performance. The results presented are differentiated by gender, type of school, and year of schooling.

Reason for Participating: Excited by the research project.

Shirley Wild (#96)

Title: Sex Education in Red and Blue States

Faculty Sponsor: Professor Kimberly McGann, Sociology & Anthropology

Abstract: For this project, I am looking at whether there is a relationship between the sex education policy of a state and the state's political orientation. I am looking at five different states' sex education policies and categorizing them as "abstinence only," "semi-comprehensive," and "comprehensive." Then I will take into account whether each of the states being looked at is a "red" state or a "blue" state based on the way that they voted in the last three presidential elections. I will compare their color status to their type of sex education policy to see if the two may be related. I am interested in this topic because it is important for people to understand how politics affects their daily life, including their education system, especially when the topic is so controversial already.

Reason for Participating: SOC 444 - Sociology Senior Seminar

Jennah Wolcott (#97)

Title: Determination of Beer Bitterness (IBU) using UV-Vis Spectroscopy

Faculty Sponsor: Professor William Lammela, Chemistry & Biochemistry

Abstract: Home brewing of beer has become a popular trend in recent years; the basis behind different flavors of beers is hop bitterness. Bitterness is a major component in beer and is measured in International Bitterness Units (IBU). One IBU is equal to 1mg of isomerized alpha acid per liter or one part per million of iso-alpha acids. The greater the value of the IBU the bitterer a beer may be and vice versa. UV-Vis spectroscopy was used to determine the concentration of iso-alpha acid in several samples of beer. Pale Ales, IPAs, porters, stouts, lagers, and pilsners all have different BUs due to the different types of hops used in their production. An average American lager, such as Budweiser

Wolcott continued

has about 10 IBUs, an average IPA has between 40 and 60, and double IPAs have about 60 to 100 IBUs.

Reason for Participating: CHM 325 – Chemical Instrumentation

Rachel Zacharek (#99)

Title: The Rochester Community's Sexual Health

Faculty Sponsor: Professor Lisa Cerami, Women and Gender Studies

Abstract: I was interested in discovering the facts about Rochester's sexual health as a community. This includes research on std rates as well as the different demographics that are linked with these statistics. I will have conducted my research with the help of Planned Parenthood for the bundle of my research.

Reason for Participating: WMS 440 - Seminar in Women and Gender Studies

Klaudia Zoto (#101)

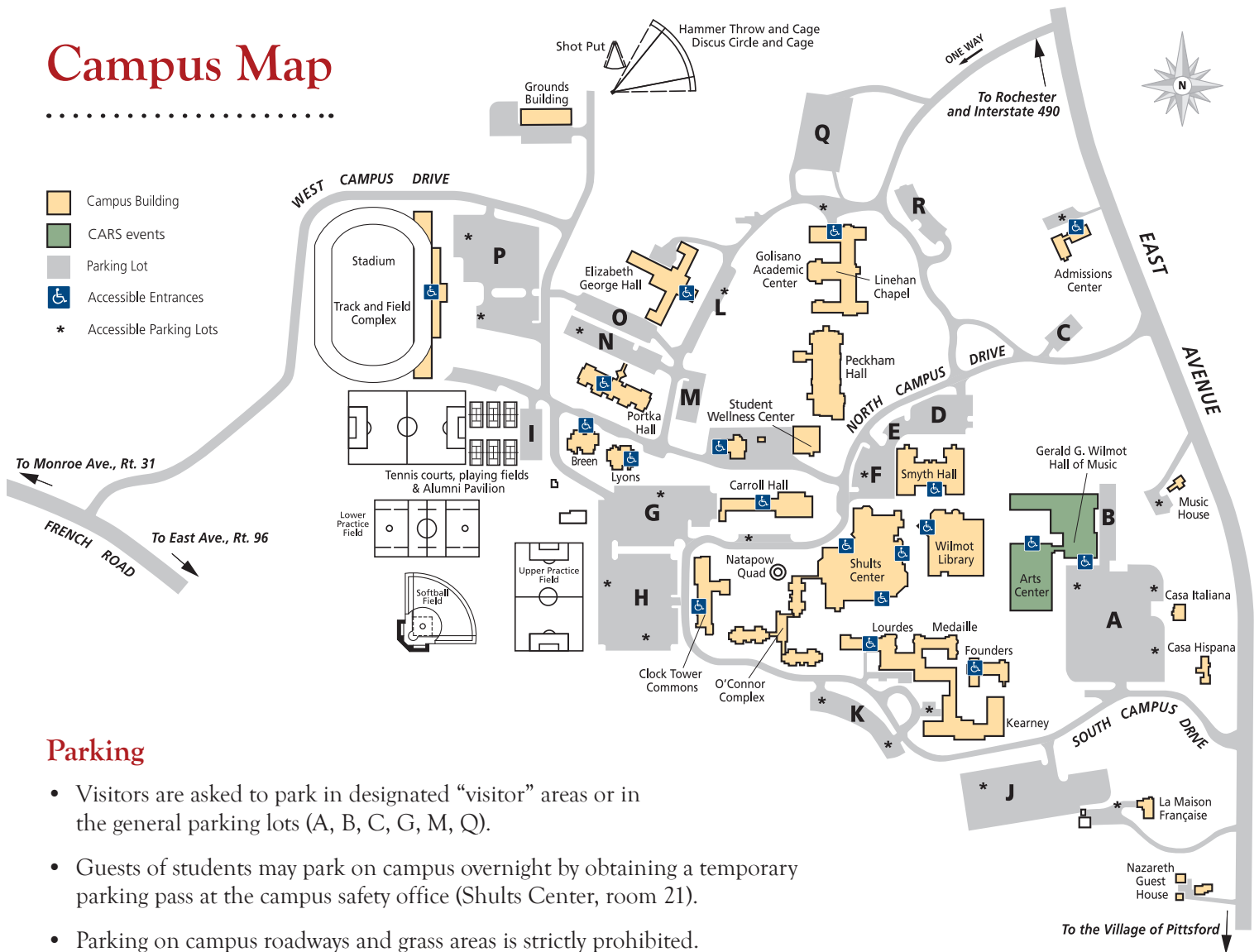
Title: Psychological Factors Contributing to College Adjustment in First Year Students

Faculty Sponsor: Professor MaryAnn Bush, Psychology

Abstract: First year adjustment to college has been shown to improve retention and provide for a more successful college experience (Gerdes & Mallinckrodt,1994). In an extension of a previous study (Bush & Fangio, 2012) this study investigated the impact of positive reframing as an additional factor in the prediction of college adjustment. The model produced an adjusted R² of .48 (F=32.40, p<0.001).


Reason for Participating: Independent research in preparation for graduate study.


Campus Map



Parking

- Visitors are asked to park in designated “visitor” areas or in the general parking lots (A, B, C, G, M, Q).
- Guests of students may park on campus overnight by obtaining a temporary parking pass at the campus safety office (Shults Center, room 21).
- Parking on campus roadways and grass areas is strictly prohibited.

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