

May 6th, 9:30 AM - 4:30 PM

Celebration of Learning 2015: Full Program

Augustana College, Rock Island Illinois

Follow this and additional works at: <https://digitalcommons.augustana.edu/celebrationoflearning>

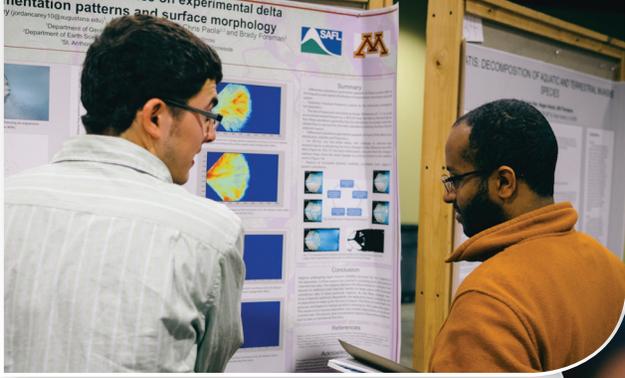


Part of the [Education Commons](#)

Augustana Digital Commons Citation

Augustana College, Rock Island Illinois. "Celebration of Learning 2015: Full Program" (2015). *Celebration of Learning*.
<https://digitalcommons.augustana.edu/celebrationoflearning/2015/fullprogram/1>

This Other is brought to you for free and open access by Augustana Digital Commons. It has been accepted for inclusion in Celebration of Learning by an authorized administrator of Augustana Digital Commons. For more information, please contact digitalcommons@augustana.edu.



celebration *of* learning 15

Augustana College

8:15-9:30	Honors & Awards Breakfast (Wilson Center)										
9:30-10:45	Poster Presentations w/ Breakfast items, Gavle Room, CSL: Anthropology, Asian Studies, Biochem, Biology, Botany, Comp Sci, Geography, Elem Ed, Environ Studies, Neurosci, Physics, Poli Sci, Pre-Med, Psychology, Public Health										
	PRESENTATIONS: OLIN AUDITORIUM	SESSION ROOM A: HANSON 102	SESSION ROOM B: HANSON 304	SESSION ROOM C: HANSON 305	SESSION ROOM D: OLD MAIN 28	SESSION ROOM E: OLD MAIN 132	SESSION ROOM F: OLIN 305	SESSION ROOM G: Bergendoff, Larson Hall	SESSION ROOM H: LIBRARY, 2ND FLR NORTH	SESSION ROOM I: COLLEGE CENTER BOARD RM	AUGUSTANA TEACHING MUSEUM, CENTENNIAL
SESSION-I 10:30-11:30	FEATURED ALUMNI PRES.	BUSINESS ADMIN	CHEMISTRY, PHYSICS, BIOCHEMISTRY	ANTHROPOLOGY	TEXAS MEDICAL CENTER INTERNSHIPS	WGST, HONORS, HISTORY	FACULTY PRESENTATIONS: MUSIC, ART, GEOGRAPHY	THEATRE ARTS, CREATV WRTNG, ASIAN STUDIES		COMMUNICATION STUDIES (PERFORMANCE)	10:15-12:05: SENIOR ART SHOW GALLERY TALKS (GROUP 1); 12:15-12:45: SENIOR ART HISTORY EXHIBITION
SESSION-II 11:45-12:45	FEATURED FAC/STUDENT PRES.	PSYCHOLOGY, GRAPHIC DESIGN, SOCIOLOGY, EDUCATION	BIOLOGY, ENVIRO STUDIES, PUBLIC HLTH	ANTHROPOLOGY	COMM SCI & DISORDERS, NUTRITION, TMC INTERNS	HISTORY EDUCATION	FACULTY PRESENTATIONS: PSYCHOLOGY, NEUROSCIENCE	THEATRE ARTS	CREATIVE WRITING		
SESSION-III 1:00-2:00	FEATURED STUDENT PRES.	ELEMENTARY EDUCATION, MUSIC EDUCATION	GEOGRAPHY, POLITICAL SCI, ENVIRO STUDIES	HONORS CAPSTONES	FRENCH	HISTORY EDUCATION	FACULTY PRESENTATIONS: GEOGRAPHY, ASTRONOMY, BIOLOGY	1:00-3:20: SENIOR ART SHOW GALLERY TALKS (GROUP 2)	GEIFMAN PRIZE Essays & Art		
SESSION-IV 2:15-3:15	FEATURED FACULTY PRES.	MATHEMATICS		ENGLISH LIT. w/ A TWIST; LIBERAL STUDIES	FRENCH	RELIGION, PSYCHOLOGY, PHILOSOPHY	FACULTY PRESENTATIONS: PHILOSOPHY, HISTORY				
3:15-4:30	Poster Presentations w/ hors d'oeuvres, Gavle Room, CSL: Biology, Botany, Geology, Neuroscience, Psychology, Sociology										

HEALTH COMM PROJECT, CSL 4TH FLOOR HALLWAY

SELF-GUIDED ART TOUR: FOUNDERS HALL, 1ST FLOOR

TABLE OF CONTENTS

Schedule Overview.....	PAGE 1
Poster Presentation Layout (Poster Session I).....	PAGE 2
Poster Presentation Abstracts (Poster Session I).....	PAGES 3–9
Oral Presentations & Performances: Session I.....	PAGES 9–14
Oral Presentations & Performances: Session II.....	PAGES 15–20
Oral Presentations & Performances: Session III.....	PAGES 20–24
Oral Presentations & Performances: Session IV.....	PAGES 25–26
Special Projects	PAGES 27
Senior Art Show Gallery Talks, Senior Art History Exhibit, and Artist Presentations.....	PAGES 28–32
Poster Presentation Layout (Poster Session II).....	PAGE 33
Poster Presentation Abstracts (Poster Session II).....	PAGES 34–40
Faculty Publications.....	PAGES 41–44
Student Honors and Awards.....	PAGES 45–46
Index of Presenters.....	PAGES 47–48

CELEBRATION OF LEARNING 2015 OVERVIEW

POSTER SESSION 1

9:30-10:45 a.m. | Gävle Room, Center for Student Life (CSL), 4th floor

CONCURRENT PRESENTATIONS, SESSION I

10:30-11:30 a.m. | Hanson Hall of Science, Olin Center, Old Main,
Larson Hall (Bergendoff), College Center Board Room

FEATURED PRESENTATION-I

10:30 a.m. | Olin Auditorium

Kasia Galica '10 (Communication Studies, Spanish)

Following Open Doors, Leveraging Networks, Collecting
Experiences, and Staying Curious: Life and Work after Augustana

CONCURRENT PRESENTATIONS, SESSION II

11:45 a.m.-12:45 p.m. | Hanson Hall of Science, Olin Center, Old Main,
Larson Hall (Bergendoff), Tredway Library

FEATURED PRESENTATION-II

11:45 a.m. | Olin Auditorium

Dr. Mike Egan plus members of the Comprehensive Learning
Portfolio project (~11 faculty/staff members, ~25 students)
(Liberal Arts)

Comprehensive Learning Portfolio Project: Showcasing Academic,
Co-Curricular, Athletic, Residential and Social Learning at Augustana

CONCURRENT PRESENTATIONS, SESSION III

1-2 p.m. | Hanson Hall of Science, Olin Center, Old Main, Larson Hall
(Bergendoff), Tredway Library

FEATURED PRESENTATION-III

1 p.m. | Olin Auditorium

Ebony Allen '15 (Philosophy, TMC Internship)

Behind the Science

CONCURRENT PRESENTATIONS, SESSION IV

2:15-3:15 p.m. | Hanson Hall of Science, Olin Center, Old Main,
Larson Hall (Bergendoff)

FEATURED PRESENTATION-IV

2:15 p.m. | Olin Auditorium

Dr. John Delaney (Accounting and Auditing),
Jeff Coussens (Theatre Arts)

The Frequent Flyer Fraudster – A Teaching Case

SENIOR ART SHOW GALLERY TALKS, SENIOR ART HISTORY EXHIBIT AND ARTIST PRESENTATIONS

10:15 a.m.-3:20 p.m. | Augustana Teaching Museum of Art
(Centennial Hall), Larson Hall (Bergendoff)

Senior Art Show Gallery Talks (Group 1)

10:15 a.m.-12:05 p.m. | Augustana Teaching Museum of Art
(Centennial Hall)

Senior Art History Exhibition

12:15-12:45 p.m. | Augustana Teaching Museum of Art
(Centennial Hall)

Senior Art Show Gallery Talks (Group 2)

1-3:20 p.m. | Larson Hall (Bergendoff)

POSTER SESSION 2

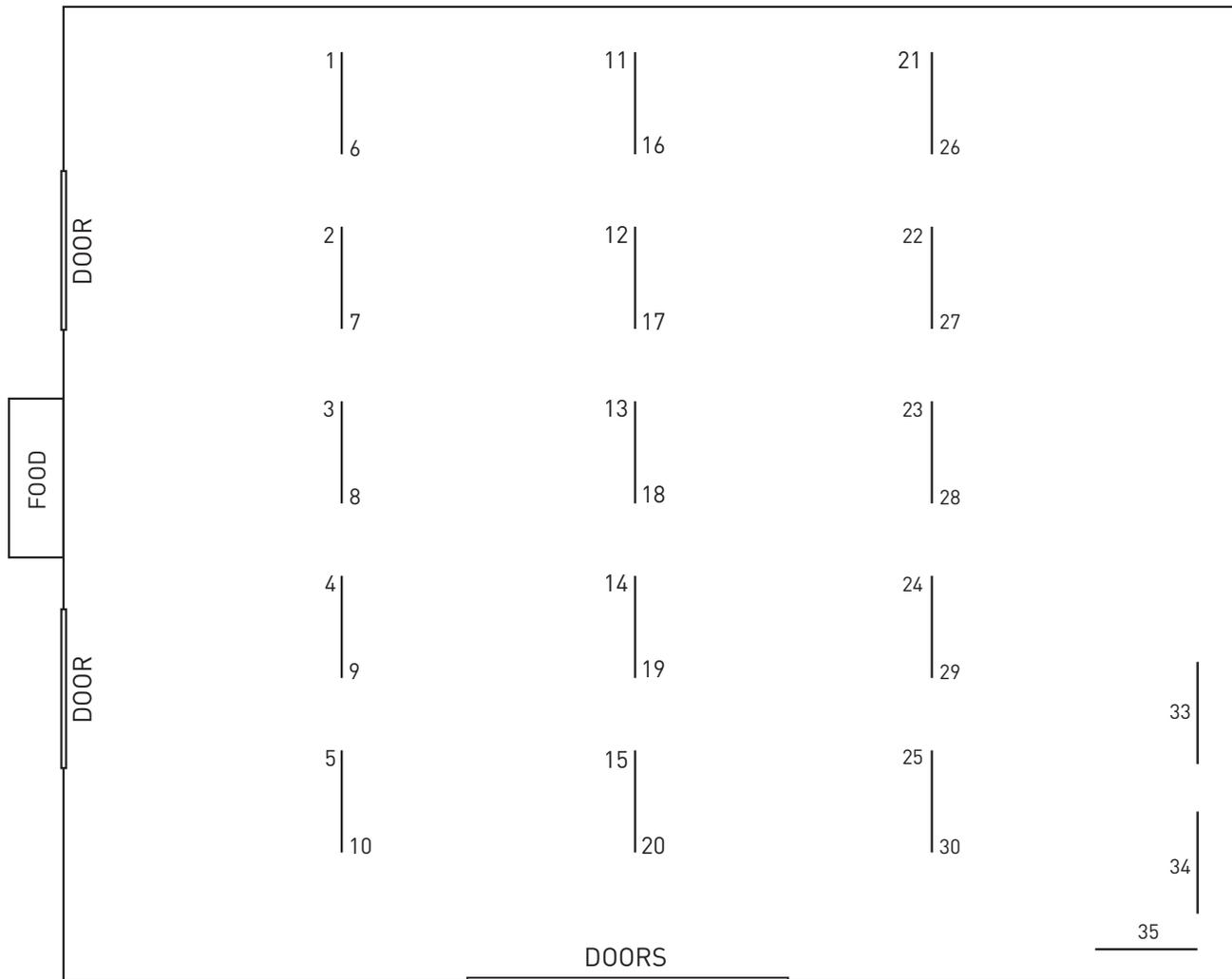
3:15-4:30 p.m. | Gävle Room, CSL (4th floor)

SPECIAL PROJECTS

9:30 a.m.-4:30 p.m. | CSL (4th floor), Founders Hall (1st floor)

POSTER SESSION I | 9:30 - 10:45 a.m.

Poster Presentation Layout | Center for Student Life, Gävle Room



- | | | | |
|----|---|-------|--|
| 1 | Laura Ames, Barrie Chileen, Erienne Davis, Edvard Edsgard, Margaret Richardson, Nick Riojas, Jessa Rizzo, Ashish Tadepalli, Bonnie Thornton, Anthony TouVelle, Dr. Christopher Strunk | 16 | Brad Gaskin |
| 2 | Kaitlyn Williams | 17 | Stephanie Drago |
| 3 | Dr. Michael Reisner | 18 | Jeremy Sundberg |
| 4 | Kelly Sullivan | 19 | Morgan Conley |
| 5 | Christopher Hager | 21 | Lea Baumgart, Ashley Wolfe |
| 6 | Diana Schultz | 22 | Suzanne Geisler |
| 7 | Samantha Turner | 23 | Brooke Heibel |
| 8 | Peter Siepiora | 25 | Emily Johnson, Abigail Heuer |
| 9 | Aubrey Waddick | 26 | Elizabeth Bartha, Julie Dombai, Dr. Mike Egan, Dr. Randy Hengst |
| 10 | Jacob Torres | 27 | Ethan Wojcinski, Katie O'Brien |
| 11 | McKenna Burns, Whitney Sampleton, Krisitin Schoenecker | 28 | Benjamin Hodges, Jon Losen |
| 12 | Megan Petersohn | 29 | Molly Bunkofske |
| 13 | Courtney Jankowski | 30 | Jillian Jespersen, Alyssa Kendell, Amanda Narkis, Dr. Troy Larson |
| 14 | Karen Juco | 33-35 | Lauren Becker, Michael Dimock, Amanda Moore, Nadia Panasky, Emma Stough and Kristin Walden |
| 15 | Mark Hoffmann | | |

POSTER SESSION 1

GÄVLE ROOM, CENTER FOR STUDENT LIFE

9:30-10:45 A.M.

Breakfast foods and beverages will be served during the morning poster session.

Laura Ames, Barrie Chileen, Erienne Davis, Edvard Edsgard, Margaret Richardson, Nick Riojas, Jessa Rizzo, Ashish Tadepalli, Bonnie Thornton, Anthony TouVelle, Dr. Christopher Strunk (Geography)

Mapping Food Accessibility in the Quad Cities

Poster Session 1 #1: Gävle Room, Center for Student Life

The number of people across the United States who are “food insecure” has risen dramatically in recent years as a result of the economic recession and cuts in social services. The USDA estimates that 14.3 percent of U.S. households were food-insecure during 2013, while almost 20 percent of children were food-insecure. Food security is, like many issues, fundamentally geographic. In recent years, studies have highlighted the existence of so-called “food deserts,” or areas with limited access to healthy food. Concentrated poverty, segregation and public transportation networks all play crucial roles in determining access to food. This spring, geography students are using Geographic Information Systems (GIS) to map different aspects of food accessibility in the Quad Cities as part of Augustana’s partnership with the Scott County Health Department. Our poster will demonstrate maps of food deserts and network analysis of possible routes between sites of food donation and food pantries in Rock Island and Scott County.

Kaitlyn Williams (Anthropology)

Home Is Where the Craft Beer Is: An Analysis of How Microbreweries in the Quad Cities Are a Part of the Local Identity

Project Advisor: Dr. Adam Kaul

Poster Session 1 #2: Gävle Room, Center for Student Life

Since the 1980s there has been a rapid increase in the amount of craft breweries found across the United States. The Quad Cities tapped into the growing market and became home to Iowa’s first-ever brewpub in 1992. Since then the local industry has developed, and there are four microbreweries in the area. Geographer Wes Flack hypothesized that the expansion of this industry stems from “neolocalism,” in which people pull away from the homogeneity of popular, national culture and look to reconnect with the local culture. Through ethnographic research, interviews and participant observation, I investigate how the Quad Cities’ breweries have created a “sense of place” to satisfy their local market’s desire for local identity. Through this investigation, I have found that the breweries’ different names and graphics associated with each brew flavor are related to the Quad-Cities area.

Dr. Michael Reisner (Environmental Studies, Geography)

Diversity and Composition of Urban Riparian Forests of Rock Island and Moline

Poster Session 1 #3: Gävle Room, Center for Student Life

Urbanization impacts native ecosystems directly through replacement of native communities with urban infrastructure and indirectly through habitat fragmentation and degradation. Urban forests develop from the survival of remnant trees, shrubs and herbaceous species, and the intentional planting and unmanaged reproduction

and regeneration of native and non-native species. These forests represent novel ecosystems comprised of new species compositions and structures new abiotic conditions compared to historic vegetation. Because humans have suppressed fire and eliminated most grazing, the two disturbances that limited shrub growth and maintained herbaceous understory growth, many such understories are now dominated by woody vegetation. One of the biggest threats to urban forests is invasion by non-native plant species, which can alter decomposition rates, nutrient cycling and regeneration. Urban forests generally have lower integrity and resilience than more natural or rural counterparts. Understanding how and to what extent urbanization has impacted forest composition and structure is vital because these forests continue to provide a diverse array of ecosystem services. This is especially true for small, urban headwater streams because of their strong influence on downstream water quality and ecosystem processes. Our study area included the upland urban riparian forests of the cities of Rock Island and Moline, Ill. We sought to answer the following research questions:

(1) What is the variation in overstory and understory plant community composition and diversity, and especially levels of invasive species dominance? and (2) What is the relative importance of the fine-scale land use and other factors driving observed patterns of community composition and diversity? In 2013-2014, we sampled 22 sites across an urbanization gradient. Aerial photographs, soil surveys and other remote sensing data were used to stratify the urban forests and capture as much variation in the factors thought to be important drivers of forest composition as possible. Our preliminary findings suggest that these remnant forests continue to serve as a refuge for important native flora despite often dominating levels of invasive species. Our findings also suggest that in the absence of fire, competition from shade-tolerant native tree species also may be reducing the diversity of remnant native understory communities. Conserving and restoring these remnant areas will require more extensive and active stewardship focused on enhancing the resilience of such systems in the face of novel types and levels of stress and disturbances created by urbanization.

Kelly Sullivan (Biology)

Road Salt’s Effect on Photosynthetic Rate as Measured by Oxygen Production

Project Advisor: Dr. Kevin Geedey

Poster Session 1 #4: Gävle Room, Center for Student Life

Road salt runoff can have implications on the environment, specifically on plant life. I investigated the rate of photosynthesis in algae that was placed in various salinity concentrations at Augustana College’s Green Wing Environmental Laboratory field station. I wanted to see at what salt concentration the algae’s photosynthetic rate would be affected. By measuring the oxygen production of the algae samples, I could determine their photosynthetic and cell respiration rates. The results indicated that salt concentrations that are higher than ambient water do have an effect on photosynthetic rate as measured by oxygen production. These results are important to the scientific community because results like this show us we need to improve our road management procedures to be more environmental friendly so as not to impact the local plant life.

Christopher Hager (Biology)

DATIS: Decomposition of Aquatic and Terrestrial Invaded Systems

Project Advisor: Dr. Kevin Geede

Poster Session 1 #5: Gävle Room, Center for Student Life

Current literature reveals that invasive flora can increase decomposition rates due to higher nutrient levels in comparison to native species. This study compares two tree species, the invasive *Ailanthus altissima* (Tree of Heaven) and the native *Rhus glabra* (Smooth Sumac), in their rates of decomposition within aquatic and terrestrial environments. These two species are compared to help better understand the direct impacts invasive species have on decomposition within aquatic and terrestrial environments. Preliminary results have shown a positive correlation with increased decomposition as percent of invasive increases.

Diana Schultz (Biology, Environmental Studies)

Alliaria Petiolata in Rock Island and Moline Urban Forests

Project Advisor: Dr. Michael Reisner

Poster Session 1 #6: Gävle Room, Center for Student Life

Urbanization impacts native ecosystems directly through replacement of native communities with urban infrastructure and indirectly through habitat fragmentation and degradation. Urban forests develop from the survival of remnant trees, shrubs and herbaceous species, and the intentional planting and unmanaged reproduction and regeneration of native and non-native species. These forests represent novel ecosystems comprised of new species compositions and structures new abiotic conditions compared to historic vegetation. Because humans have suppressed fire and eliminated most grazing, the two disturbances that limited shrub growth and maintained herbaceous understory growth, many such understories are now dominated by woody vegetation. One of the biggest threats to urban forests is invasion by non-native plant species, which can alter decomposition rates, nutrient cycling and regeneration. One particularly prevalent invasive species found in the northern United States is a plant commonly known as garlic mustard (*Alliaria petiolata*). Its lack of predators in the region, its biannual life cycle and its ability to produce allelochemicals that both negatively affect the growth and development of other plants and protect it from herbivory make garlic mustard a successful and challenging invader of the region's urban riparian forests. In order to know how to better deal with this invasion, the prevalence of the species had to be determined. We took a forest inventory to determine how widespread this invasive species is in the Rock Island area.

Samantha Turner (Anthropology)

Observing Visitors: An Ethnographic Approach to Visitor Studies

Project Advisor: Dr. Adam Kaul

Poster Session 1 #7: Gävle Room, Center for Student Life

Technology and society are changing at increasingly rapid rates. It is important that museums change to match the demands of today's technology saturated society. Many museums are now in a state of flux, trying to strike a balance between interactive and didactic displays. To best serve the community, museums must have a thorough understanding of their visitors and how the visitors interact with the museum and its exhibits. Through observation and interviews with various visitors to the German American Heritage Center (GAHC) in Davenport, Iowa, I looked at how visitors use and interact with the museum. My work is situated in collaborative museology theory, emphasizing the importance of audience inclusion in exhibit design. Analysis of these interviews and observations suggests that visitors to the GAHC are looking to either understand their own culture more

fully or to discover another culture with local history. My data also suggests that museum visitors respond to an exhibit that they can connect to personally.

Peter Siepiora (Asian Studies)

Changing Environments: The Citizens of Beijing Respond to Air Pollution

Project Advisors: Dr. David Dehnel; Dr. Xiaowen Zhang

Poster Session 1 #8: Gävle Room, Center for Student Life

Through interviews and focus groups, we were able to discover that despite the high level of air pollution, the citizens of Beijing understand that a decrease in environment quality is a side effect of economic development. Although they think that the government could have done more, they are generally optimistic about the future. When asked about their own role, many of them say that it should also be their responsibility, but it is almost impossible for them to make an impact.

Aubrey Waddick (Political Science)

Changing Environments: How International Non-Governmental Organizations Respond to the New Politics of Chinese Air Pollution

Project Advisors: Dr. David Dehnel, Dr. Xiaowen Zhang

Poster Session 1 #9: Gävle Room, Center for Student Life

Since 1978 China's population, economy and urban air pollution have grown exponentially. Chinese atmospheric pollution can impose financial and medical costs on a domestic and international level. After the 2013 airpocalypse, the PRC initiated an era of environmental reform, which International environmental organizations (INGOs) saw as a window of opportunity to enhance the government's effectiveness. To be successful, INGOs have sought to adapt to the Chinese political system, revamping their past techniques and practices. Interviews with international groups working and located in Beijing reveal distinct patterns of interactions between groups, government and society emerge. Through redefined government relationships, greater domestic partnerships and the utilization of local knowledge, INGOs have attempted to gain greater influence in the Chinese political system.

Jacob Torres (Biology)

Aquatic Macroinvertebrate Diversity Within an Urbanized Gradient

Project Advisor: Dr. Michael Reisner

Poster Session 1 #10: Gävle Room, Center for Student Life

In urban areas, the amount of impervious surface and storm water infrastructure has altered natural streams and riparian areas, ultimately degrading their functionality. Urban development decreases water quality, which in turn, changes the aquatic insect community. Macroinvertebrates within urban streams are susceptible to habitat change, some being more tolerant than others to pollutants. Low levels of development (upstream percent impervious surface levels of 5-10% at watershed level) can eliminate or reduce many pollution intolerant native macroinvertebrate families. However, there is very little, if any, understanding of how increment levels of urbanization above these thresholds influence the remaining macroinvertebrate communities. In this study, we assessed the integrity of the macroinvertebrate community using the Family Biotic Index (FBI) within an urbanization gradient (25-60% upstream impervious surface) in Rock Island and Moline, Ill. The study area consisted of 30 sampling sites located in 12 urban watersheds characterized by at least some remnant natural riparian stretches. A pilot study was conducted in 2013 during which a total of five pool and five riffle stretches were sampled using dip nets; however, no

effort was made to standardize the total sampling effort. Samples were collected approximately once per month from May–September. Continuing the study in 2014, a standardized unit effort was established, consisting of 10 pool/10 ripple dip net samples and a 30-minute limit effort. 2014 data also was collected in one sampling event in April. Across both years of sampling, there were 30% (10 out of 30) of the sampling sites where only between 0–3 individuals were found despite an intensive sampling effort. Water quality parameters at each site varied significantly, which should help explain macroinvertebrate diversity across watersheds. We found almost no reliable predictors of FBI, with the exception of a weak negative relationship between dissolved oxygen levels and FBI in 2014 (regression, p -value = .035; R^2 = 0.298). Our findings provide important insights into the integrity of the macroinvertebrate community within an urbanization gradient and are consistent with the findings of other studies showing that high levels of urbanization can homogenize communities.

McKenna Burns, Whitney Sampleton, Kristin Schoenecker (Economic Botany)

Perennial Grain Solutions to U.S. Topsoil Erosion

Project Advisor: Dr. Bo Dziadyk

Poster Session 1 #11: Gävle Room, Center for Student Life

Topsoil erosion in the United States is an environmental concern promoted by current agricultural practices. The problem has been compounding since the birth of industrial agriculture with negative effects exemplified by the Dust Bowl in the 1930s. It is estimated that globally about 26 trillion kilograms of topsoil are lost every year to erosion. This delicate layer of soil is the source of more than 90% of nutrients and organic matter stored in the ground, which is essential to successful crop production. With the human population nearing 8 billion, we need as much arable land as possible to productively use as a food source for the world. Perennial grains offer a possible solution to this difficult and complicated problem. Among the benefits are the low frequency need to till the soil and the extensive root systems that hold the soil in place. While there are many different perennial crops, some of the most promising include alfalfa (*Medicago sativa*, L.), perennial sorghum (*Sorghum bicolor*, L.) and sunflowers (*Helianthus annuus*, L.). While the first two crops are not native to the United States, sunflowers, along with gamagrass (*Tripsacum dactyloides*, L.) and Illinois bundleflowers (*Desmanthus illinoensis*, Michx.) would be solutions native to the landscape. Each of these crops has advantages and disadvantages. Ultimately, a combination of these plants or similar ones will prove vital to preserving our topsoil and therefore our food supply.

Megan Petersohn (Biology)

Crayfish Abundance and Diet Between Two Different Habitats

Project Advisor: Dr. Kevin Geede

Poster Session 1 #12: Gävle Room, Center for Student Life

I investigated the effects of two different habitats in the same body of water on the abundance and diet of crayfish (*Procambarus acutus*) at the Augustana Greenwing Environmental Laboratory (AGWEL) in Amboy, Ill. The two habitats were located in the main pond at AGWEL and were 115 meters apart. The shallow habitat was on the north side of the lake with less vegetation and higher water temperatures, while the deeper habitat was on the west side with more vegetation and lower water temperatures. Crayfish abundance was assessed by trapping with cat food-baited minnow traps at different depths and distances from shore in each habitat. In each habitat, three baited traps were placed. One was 5 meters away from shore, resulting in a shallow depth, another 10 meters away from shore, and the third

was 15 meters away from shore, being the deepest trap within each habitat. I also recorded proportion of vegetative cover, light penetration, water temperature, specific conductivity (SPC), dissolved oxygen levels and total dissolved solids (TDS) to look for other factors that could explain crayfish distribution. The traps were checked 11 separate times, and each time, the caught crayfish were collected for further diet analysis. I found that patterns existed between the abundance of crayfish in different habitats and at different distances from the shore, depths and temperature in each habitat. The proportion of cover in the deeper habitat was significantly greater than the shallow habitat. Yet surprisingly, the crayfish caught per trap hour was significantly higher in the shallow habitat. It was also noted that most crayfish caught per trap hour was neither in the closest trap (5 meters from shore) or the farthest trap (15 meters from shore), but in the trap in-between (10 meters from shore) for both habitats. The same pattern was seen in both the shallow and deeper habitats. There was also a similar pattern of crayfish abundance with depth and water temperature. The shallow and deeper depths and the lower and higher water temperatures where the traps were, caught the least amount of crayfish. The minnow traps in-between recorded the most abundant crayfish caught per trap hour. There was no significant difference found between the diet of the crayfish of the two different habitats and light penetration, SPC, dissolved oxygen levels, and TDS do not appear to be associated with crayfish distribution in this pond.

Courtney Jankowski (Environmental Studies, Public Health)

Concentrated Animal Feeding Operations and Surface Water Quality

Project Advisors: Kendall Thu1, Melissa Lenczewski1, Jim Wilson1, and Stephanie Fuhr2

1Northern Illinois University

2Augustana College

Poster Session 1 #13: Gävle Room, Center for Student Life

The emergence of Concentrated Animal Feeding Operations (CAFOs) in the last century has resulted in increased environmental and human health concerns, including foodborne, airborne and waterborne contamination (Nierenberg 2005). Research on water quality issues near CAFOs is lacking in DeKalb County, which is home to the greatest concentration of swine in Illinois. A recent study (Mills 2013) found the presence of antibiotics and other contaminants surrounding several swine CAFOs in DeKalb and Kane counties, and pointed to the need for additional research. Our research responds to fill this need by partially replicating Mills' study. We hypothesized that concentrations of antibiotics and other contaminants proximal to CAFOs will be greater than surface water sources located farther from the CAFOs. We tested for a broad spectrum of geochemical contaminants, in addition to Coliform and *E. coli*, presence of antibiotics (beta-lactam, tetracycline, sulfamethazine) and antibiotic-resistant bacteria for those three antibiotics. We were able to make a few conclusions: 1) nitrates at CAFOs exceeded maximum contamination level while the controls remained below; 2) antibiotic presence is likely episodic; 3) antibiotic resistance is not episodic; 4) control sites are not adequate for comparing antibiotic presence. There are many confounding variables when measuring the effects of CAFOs, and more research is needed to show evidence that CAFOs are the direct cause of this contamination.

Karen Juco (Biochemistry)

Glutamate Dehydrogenase in Yarrowia Lipolytica

Project Advisor: Dr. Pamela Trotter

Poster Session 1 #14: Gävle Room, Center for Student Life

Yarrowia lipolytica is a nonconventional species of yeast that has the potential to serve as a useful alternative to *Saccharomyces cerevisiae* ("baker's yeast"). However, not much is known about its metabolism. This study focuses on glutamate dehydrogenase (GDH) specific activity in *Y. lipolytica* and the annotation of the predicted GDH-encoding genes in *Y. lipolytica*. GDH is an enzyme that catalyzes the biosynthesis and degradation of the important amino acid, glutamate. In the forward direction of the reaction, α -ketoglutarate, a byproduct of the citric acid cycle, is aminated into glutamate. This direction uses NADPH as the cofactor and also releases a free ammonium ion. GDH also catalyzes the reverse reaction, which uses NADH as the cofactor. The present study focused on how the nature of the nutrients in the growth media can affect GDH specific activity. This presentation will also highlight the ongoing attempts to clone the predicted GDH genes in *Y. lipolytica* and introduce them into a GDH-null *S. cerevisiae* mutant. In theory, if these cloned *Y. lipolytica* genes do encode for GDH, this construct should have comparable GDH specific activity to that of the wild type *S. cerevisiae* strains.

Mark Hoffmann (Radiation Physics)

Breast and Chest Wall Sum Plan Comparisons

Project Advisor: Dr. Heidi Storl

Poster Session 1 #15: Gävle Room, Center for Student Life

Radiation has been a treatment for different types of cancer for years. There is always new information and research results being published for this topic, leading to a high demand for data. My summer project at MD Anderson Cancer Center was to analyze data sets collected slightly differently from MD Anderson and Mayo Clinic to determine if combining the data sets was feasible or if by doing so, the results of future studies would be skewed.

Brad Gaskin (Environmental Studies)

Determining Influences on Headwater Stream Transitions and Classifications in Rock Island County, IL

Project Advisor: Dr. Reuben Heine

Poster Session 1 #16: Gävle Room, Center for Student Life

Jurisdictional determinations of headwater streams under the Environmental Protection Agency's Clean Water Act (CWA) presently require extensive fieldwork, which makes them labor intensive. While watershed parameters are regularly used to make discharge estimates for perennial rivers and streams, much less work has been done to extend this methodology upstream to the headwaters to identify the upstream extent of CWA jurisdiction (approximately at intermittent/ephemeral boundary). Furthermore, there is a need to better understand how headwater streams transition in different parts of the country and in different physical environments. Using the North Carolina Division of Water Quality's "Methodology for Identification of Intermittent and Perennial Streams and Their Origins" and ArcGIS 10.1, this study sought to assess how GIS-derived channel slope, upstream average imperviousness, upstream average watershed slope, and watershed area within forested, urban and agricultural environments affect the transition of headwater streams in Rock Island County, Ill. Multiple linear regressions revealed that watershed area significantly influenced how streams transitioned across all subwatersheds that were part of this study ($R^2=.216$). However, at the specific subwatershed sites, watershed area in the forested watershed ($R^2=.774$), average upstream slope in the urban

watershed ($R^2=.469$), and average upstream slope and upstream average imperviousness in the agricultural watershed ($R^2=.886$) were the variables found in this study that had an influence on how these headwater streams transitioned and were classified from ephemeral to intermittent to perennial. These results could be used to automate the process of making jurisdictional determinations of headwater streams based on the physical characteristics of the watershed and stream channel.

Stephanie Drago (Geography)

Filled In: An Investigation of the Sedimentation Rates and Sediment Distributions of Lake George in Rock Island County, Illinois

Project Advisor: Dr. Reuben Heine

Poster Session 1 #17: Gävle Room, Center for Student Life

In the last 60 years, sedimentation has become an environmental issue plaguing our watersheds due to the magnification of agriculture, particularly in the United States. Reservoirs and lakes act as sediment traps when sediment-laden streams slow down into basins, causing sediments to drop and accumulate. Sedimentation in lakes and reservoirs destroys benthic habitat, carries harmful chemicals off of agricultural fields, reduces storage capacity, and degrades the useful life of the lake or reservoir. This research focused on sedimentation rates, sediment distributions, and the reservoir lifespan of a human-built recreational lake, Lake George, in rural Rock Island County, Illinois. The study acts as a preliminary analysis of potential sedimentation issues in order to determine the intensity of the lake's capacity reductions due to sediment accumulation. This project compared the historic bathymetry of the lake with the modern bathymetry in Geographic Information Systems (GIS), in order to create a model of sediment accumulation and scouring. The modern bathymetry map was generated using electronic depth sounding equipment, along with hand measurements in the field. Data was verified through field measurements of actual sediment accumulation throughout the lake, and the accumulation model was adjusted accordingly to increase accuracy. Another map was generated, which calculated the percentage of water volume loss due to sedimentation throughout the lake. Through calculations, it was found that the sedimentation rate of Lake George is 32,062.43 m³/year, with an expected life of approximately 199.42 years. It was found that a majority of the sediment accumulated near stream deltas, which may imply erosional issues upstream. The results of this study demonstrate the high rates of sedimentation in Midwestern agricultural watersheds.

Jeremy Sundberg (Geography)

New Methodology of Trail Evaluations in Small Parks

Project Advisor: Dr. Matthew Fockler

Poster Session 1 #18: Gävle Room, Center for Student Life

The conditions of the trails in parks are very crucial to the safety of hikers and the park itself. There have been many studies done looking at trail conditions. Many of these are conducted in bigger parks and cannot be transferred to smaller parks. The goal of this project is to come up with a new method to evaluate trails in smaller parks, and then apply the method to the study area to see how effective it is. Looking at earlier studies to determine the criteria to evaluate trails created the method. Then it was applied to Black Hawk Historic Site in no larger than 100-foot-long segments. A GPS hit was taken halfway through each segment. Once all of the segments were scored, the GPS waypoints and data were imported into GIS and analyzed. There were 44 segments scored. Of the segments that were either dirt or gravel, 17 of the 37 segments received a score above average. Of the segments typed as bridge, stairs and paved

trail, two of the seven segments were scored above average. When looking at the new methods, it was able to achieve the overall goal. The method was able to test the trails with multiple different criteria. Of the 13 different criteria, all but one was scored. When looking at the total scores of all the segments, the method was able to pick out the top segments of interest.

Morgan Conley (Environmental Studies)

The Spatial Distribution and Density of the Emerald Ash Borer Infestation in Rock Island and Moline, Ill.

Project Advisor: Dr. Michael Reisner

Poster Session 1 #19: Gävle Room, Center for Student Life

The Emerald Ash Borer (EAB) *Agrilus planipennis Fairmaire (Coleoptera: Buprestidae)* is a destructive colonizer of ash trees that arrived in the United States in 2002. Since then, EAB has been detected in 22 states and two Canadian provinces, and has proven to be a complicated management issue for many cities including Rock Island and Moline, Ill. The purpose of this study was to determine the spatial distribution and density of the EAB infestation in Rock Island and Moline, Ill., and to identify potential correlations between host larval densities and visual symptoms. Spatial distribution was determined through a trapping survey, with a total of 63 beetle traps (roughly two per square mile quadrat) placed throughout both cities. Two different trap types were used (green or purple multifunnel traps and purple prism traps), and all traps were baited with Manuka oil and z-3-hexanol lures. Larval density and potential correlations with visual symptoms were determined by removing two 50cm branch segments from ash trees. Branch segments were whittled in 1mm thick sheets until the cambium was reached while recording the number of larvae and galleries. Visual symptoms including ash canopy rating, bark splitting, epicormic shooting and exit holes were assessed for each tree used in the trapping survey and branch sampling. No EAB beetles were found outside the invasion epicenter at Hasselroth Park in Rock Island, Ill. Larval density in sampled branches averaged 3.2 larvae per 50cm branch, and there was no significant relationship between larval density and the presence of any visual symptoms.

Leah Baumgart, Ashley Wolfe (Psychology)

Lexical Access to Textisms: A Comparison of Text Message Abbreviations, Regular Words, and Nonwords

Project Advisor: Dr. Daniel Corts

Poster Session 1 #21: Gävle Room, Center for Student Life

Abbreviations in texting and online chatting represent phrases (BYB means “be right back”), but they might be represented in the mental lexicon as single words. This has become true for some acronyms over significant periods of time; for example SCUBA, derived from Self Contained Underwater Breathing Apparatus in the 1950s, is now such a familiar word that many are unaware of its origin. We are examining the status of textisms as words or nonwords or some intermediate status among 18-22 year olds who grew up during a time when textisms became ubiquitous. Participants completed a lexical decision task categorizing strings of letters as either words or nonwords as soon as they appear on a screen. Our version of the task included textisms, English words and nonwords. Participants were randomly assigned to treat textisms as valid words, while participants in the other condition were told textisms were not to be considered words. We used a self-report measure of texting and chatting online. We found typical results for this task in that nonwords took significantly longer to process than English words. Interestingly, textisms were processed at an intermediate speed, significantly different from the other categories. Our data showed

that the extent to which participants’ reports on their texting and online chatting frequency was unrelated to the dependent variables. This experiment suggests that textisms are quickly identified as being meaningful, but that they were not represented as typical English words. Thus, they appear to have an intermediate status that is not well defined.

Suzanne Geisler (Psychology)

Integrative Complexity and Religiosity

Project Advisor: Dr. Matthew Weeks

Poster Session 1 #22: Gävle Room, Center for Student Life

The purpose of this study was to examine the relationship between religiosity and complexity of thought. Specifically, the relationship between religious fundamentalism, religious orientation and two new components of integrative complexity—dialectical and elaborative complexity—was examined. Dialectical complexity is the ability to recognize different points of view and acknowledge that these differences have value. Elaborative complexity is the ability to develop and explain one point of view without considering the possibility or value of other perspectives. It was hypothesized that, when responding to a religious prompt, religiosity levels would negatively correlate with integrative complexity, dialectical complexity and elaborative complexity scores. Furthermore, when responding to a nonreligious prompt, significant differences would not be found between the integrative complexity scores of religious and nonreligious participants. Participants completed a survey where they wrote paragraphs explaining their thoughts on both a religious and nonreligious prompt. Afterward, they completed scales measuring different facets of religiosity and demographic questions. Results provide support for the hypothesis. When responding to religious prompts, people who were more religious thought less complexly across all parts of integrative complexity. However, when responding to nonreligious prompts, participants had similar scores. Results support previous research on cognitive complexity and religiosity, and it builds upon it by finding similar results with the new integrative complexity model. Results suggest that levels of cognitive complexity are not static, but instead may change depending on different factors, such as values or the context of a question.

Brooke Heibel (Neuroscience)

Preparation, Stress, and Performance

Project Advisor: Dr. Rupa Gordon

Poster Session 1 #23: Gävle Room, Center for Student Life

The amount of preparation an individual has regarding an event is an important factor in his/her performance and amount of stress concerning the event. Preparation will be manipulated by randomly assigning participants to a group that is either given detailed instructions regarding an arithmetic test or a group that is given less instruction. A before and after salivary sample will be administered to measure the amount of cortisol the task induces in both of the groups. Cortisol is used because it is a chemical involved in an individual’s physical stress reaction. The performance on the arithmetic test will be compared between both groups as well as a self-report of the stress felt during the task. This will allow analysis of preparation on both a subjective level of self-reported stress and in an objective measurement of cortisol level within the body. The goal of this experiment is to observe if increased amounts of preparedness has a positive effect on a participant’s stress reactions as well as increasing performance results.

Emily Johnson, Abigail Heuer (Elementary Education)

Florida School for the Deaf and Blind

Project Advisor: Dr. Deborah Bracke

Poster Session 1 #25: Gävle Room, Center for Student Life

The Augustana College/Florida School for the Deaf and Blind (FSDB) immersion experience is a collaborative effort involving Augustana education majors who have completed EDUC 340 (Methods of Inclusion), education faculty from Augustana College, and teachers and students from the Florida School for the Deaf and Blind. Founded in 1885, the FSDB is the largest school of its type in the nation with 44 major buildings on more than 50 acres of land. It is a public school, offering a full academic curriculum and a rich variety of education services to more than 600 students. This unique environment provides advanced opportunities for Augustana's teacher candidates to plan, implement and create learning experiences for students who are blind or deaf. In doing so, education majors develop an accurate and realistic idea about teaching students of diversity. We will present information about FSDB's Expanded Core Curriculum, which is an extension to the Common Core itself. We will provide context for what the Expanded Core Curriculum actually is and why it is important. We also will give examples of how we noticed this program at FSDB.

Elizabeth Bartha, Julie Dombai, Dr. Mike Egan, Dr. Randy Hengst (Elementary Education)

When and How to Appropriately Implement Teaching Tools and Strategies for Early Childhood Numeracy

Project Advisor: Dr. Randy Hengst

Poster Session 1 #26: Gävle Room, Center for Student Life

The Augustana/Longfellow Number Sense Project (NSP) is a collaborative action research project that was created to provide purposeful, individualized instruction for Longfellow School's kindergarteners and enhance the teacher education program at Augustana. During this program, we work with kindergarten students on mathematical concepts and skills. Our lessons incorporate both hands-on materials and educational software into our lessons. As we became familiar with this software, we began to suggest ways we could improve the software as well as ideas for new applications designed to help meet needs the students encountered in the classroom. Because the students interacted with a variety of teaching tools, we became increasingly interested in when and how to appropriately implement these tools and strategies for early childhood numeracy. Thus, our research focus became how students learn through the use of technology compared to student learning through the use of manipulatives.

Ethan Wojcinski, Katie O'Brien (Computer Science)

Agent-Based Modeling of Ebolavirus in Sierra Leone

Project Advisor: Dr. Forrest Stonedahl

Poster Session 1 #27: Gävle Room, Center for Student Life

Infectious diseases are dangerous and difficult to study. To reduce the risk, scientists sometimes use computer models to simulate the spread of these diseases. Our research studied the outbreak of Ebola in Africa, specifically Freetown, Sierra Leone. The model incorporates a simulated city with 94,000 inhabitants. The spread of the Ebola virus was simulated using data from the World Health Organization and other researchers. Various factors were taken into account, including social interactions at home and in the workplace, the incubation period of the disease, and mortality rates. We attempted to calibrate the transmission rate for our model using

empirical data, and we will present results showing how the model captured certain aspects of the epidemic, but not others. A live demonstration of our agent-based computer model will be on display.

Benjamin Hodges, Jon Losen (Microbiology)

Antibiotic Resistant Organisms in the Community Environment – A Survey for Future Investigation

Project Advisor: Dr. Dara Wegman-Geedey

Poster Session (1) #28: Gävle Room, Center for Student Life

Extended-spectrum Beta Lactamase (ESBL)-producing organisms are becoming more prevalent as nosocomial and community acquired pathogens. They are resistant to the majority of antibiotics used in medicine and present a degree of difficulty in pathogen identification and treatment. According to the literature, those at the greatest risk for infection by ESBL-producing organisms are those who are immuno-compromised such as those with advanced age. It is known that advanced age and severe underlying disease are independent risk factors for the acquisition of ESBL-producing isolates in the community setting. In light of this, we have sampled exercise equipment from a local weight room (Augustana College's PepsiCo Recreation Center) for the presence of ESBL because of its use by Genesis Hospital for occupational rehabilitation. In addition, we specifically sampled for ESBL-producing *E. coli* as this organism is one of the most frequent agents causing nosocomial or community-acquired bacteraemia, and *E. coli* remains one of the main ESBL-producing microorganisms isolated worldwide. After culturing environmental samples on antibiotic infused growth media, initial results indicate that ESBL-producing *E. coli* may be present in such settings.

Molly Bunkofske (Microbiology)

Interactions with the Chaperone TorsinA in HSV-1 Nuclear Egress

Project Advisor: Dr. Richard Roller

Poster Session 1 #29: Gävle Room, Center for Student Life

Herpes Simplex Virus-1 (HSV-1) replicates in the nucleus and then leaves the nucleus through a series of envelopment and de-envelopment. Previous research has indicated that TorsinA (TA), a chaperone protein present in the perinuclear space and endoplasmic reticulum, has a role in this pathway. However, little is known about what factors TA interacts with to mediate nuclear egress. Deletion of viral proteins gB and gH have been shown to partially inhibit de-envelopment. A similar result is observed when TA is overexpressed. The complex UL31/UL34 is required for egress and has been shown to co-localize with TA for capsid envelopment. Western blots of gH reveal inconsistent results that cannot determine if gH interacts with TA. Blots of gB indicate a greater degree of TA binding in TA EQ cells, for reasons unknown. The UL34 blots do not show specific co-purification of TA and UL34, suggesting the two do not directly interact. A screen and selection done to test the possibility of viral resistance forming against inhibited TA function failed, which suggests that the development of viral resistance against inhibited TA function is unlikely.

Jillian Jespersen, Alyssa Kendell, Amanda Narkis, Dr. Troy Larson (Biology)

Cloning of Fungal Genes for Heterologous Protein Expression in E. Coli

Poster Session 1 #30: Gävle Room, Center for Student Life

Lignocellulose is one of the most abundant biopolymers on Earth, and its degradation represents a currently underutilized source of carbon for ethanol production. Plant primary and secondary cell

walls contain cellulose, hemicellulose and lignin, all of which provide structural support for the plant. Plant hemicelluloses contain long chains of various pentose sugars with β -1,4 linkages. The long chain pentose sugars have many side chains, including arabinofuranosyl side chains, acetate groups and ferulic acid groups. Removal of these side chains enhances enzymatic degradation of the xylan allowing released five carbon sugars to be available for fermentation by yeast to produce ethanol. Two acetylxylan esterases (Axel and Axell) from the maize endophyte *Fusarium verticillioides* were selected for cloning and protein expression. These genes were initially cloned and the resulting proteins were expressed in *E. coli*. High levels of protein were produced. Unfortunately, all of the protein was localized to the insoluble fraction and unable to be purified in an active form. In order to facilitate solubility in *E. coli*, these sequences were submitted to the company GenScript (genscript.com) for codon optimization. The optimized gene sequences from GenScript were removed from the cloning vectors and placed into the protein expression vector pET45b(+) using restriction endonucleases. The resulting protein expression vectors contain a 6X histidine tag located on the N-terminus of the protein coding sequence. This tag will allow for purification and detection of the resulting proteins in future experiments.

Augustana Photo Bureau Students: Lauren Becker, Michael Dimock, Amanda Moore, Nadia Panasky, Emma Stough and Kristin Walden (manager)

Campus Focus: Augustana Through the Lens of Students

Staff Advisors: Quan Vi and Rebecca Zitzow

Poster Session 1 #33-35: Gävle Room, Center for Student Life

Members of the Augustana Photo Bureau work throughout the year taking photos for the Office of Communication and Marketing to use online, in social media and in print publications. They shoot campus beauty, events, performance publicity and student life photos. A variety of the work they have done throughout the past year is displayed. Photographers will be present with their work during Poster Session 1, and the photos will be displayed through the day.

International & Off-Campus Programs

Presentation of 2015 Augie Abroad Photo Contest Winners

Project Advisor: Dr. Allen Bertsche, Director of International & Off-Campus Programs (CORE)

Poster Session 1, winners announced at 10 a.m. near the fireplace outside Gävle Room, Center for Student Life (CSL)

Each year the Office of International & Off-Campus Programs asks students who participate in Augustana Study Away programs to submit photos that they feel capture key aspects of their experience abroad. The photos submitted represent the perspective and experiences of our students as well as the beauty and depth of the cultures, environments and people they encounter as a part of their international study program. By presenting the award winners at the Celebration of Learning, we hope to bring to the forefront the idea that experiential learning through study away is a vital form of education, that encountering and navigating new peoples, new places and new cultures is at its core a learning experience.

ORAL PRESENTATIONS & PERFORMANCES

Hanson 102, 304, 305

Old Main 28, 132

Olin Auditorium, Olin 305

Bergendoff – Larson Hall

Tredway Library, 2nd Floor

College Center Board Room

10:30 a.m. – 3:15 p.m.

Note: *There are multiple concurrent presentations during each one-hour time block. It is expected that presenters sharing a given time and room will divide the available time evenly (e.g., four presenters each have 15 minutes total for delivering their presentation and answering questions). Presenters appear in the order expected during the hour.*

Those attending a session will be expected to attend for the full hour rather than entering/exiting between presenters. This will minimize disruption and time between presenters.

Moderators for each session will be tasked with keeping speakers completing on time and, if necessary, interrupting a presentation if running long to allow time for all presenters.

FEATURED PRESENTATION I (OLIN AUDITORIUM)

10:30 – 11:30 A.M.



**Kasia Galica, Class of 2010
(Communication Studies, Spanish)**

Following Open Doors, Leveraging Networks, Collecting Experiences, and Staying Curious: Life and Work after Augustana

With the current rate of innovation in technology and all private and public sectors, a lot can change in five years. When Kasia Galica graduated in 2010, roughly 27% of U.S. cell phone users owned and used a

smartphone (compared to more than 70% today), Instagram barely existed, Snapchat definitely didn't exist, and Facebook hadn't even filed an IPO. Today, her job demands that she keep up with the latest developments of the social media giants with an eye toward the advancements in mobile, web and content strategy on the horizon. What does all of this have to do with her experience at Augustana College? More than you'd think. After graduating from Augustana, Galica completed a master's in communication studies and accepted a fellowship with the National Cancer Institute. Today she works on the digital strategy team with ICF International in the Washington, D.C., area. Join her in this session as she shares her insights for capitalizing on experiences, leveraging networks for career opportunities, and staying curious to stay relevant.

SESSION I-A (HANSON 102) 10:30 – 11:30 A.M.

Kaitlyn Cook (Business Administration)

Augie's Virtual Spirituality

Project Advisor: Dr. Amanda Baugous

I-A-1: Hanson 102

This research paper/presentation focuses on college students' preferences of church attendance due to their busy schedules and how the Internet and digital age has changed the way in which students worship, if at all. I will look deeper into online and televised worship services and students' busy schedules and explain whether Augustana students would prefer online and/or televised worship services over physically attending church. I will then recommend whether the St. Paul Lutheran Church in Davenport, Iowa, should incorporate more online and/or televised worship services to attract the younger college-aged members, as many churches have difficulties attracting this age group.

Darien Marion-Burton (Business Management)

Student Development and Retention

Project Advisor: Dr. Amanda Baugous, Dr. Kelly Weeks

I-A-2: Hanson 102

Predominantly White Institutions (PWIs) consistently struggle to retain students from underrepresented student populations. This holds especially true for African American students. This study will focus on the development and retention of African American students. This study focuses on the role that racial identity development, as defined by the Cross Racial Identity Scale (CRIS), plays in the bureaucratic and social interactions of African American students at PWIs. Additionally, the study takes a look at how bureaucratic and social interactions of these students affect their likelihood to stay at the institution. Through a survey administered to the student body of Augustana College, this study seeks to add to the discussion of African American student retention at PWIs.

Hannah Sundwall (Business Management, Marketing)

Statistics in College Baseball

Project Advisor: Mamata Marmé, Dr. Amanda Baugous

I-A-3: Hanson 102

To understand baseball, you must understand statistics and their importance in the analysis of the game. I have taken game-by-game statistics from the 2012, 2013 and 2014 seasons from the Augustana College Baseball program. I have worked to understand the effects of certain variables against the following dependent variables: Runs Scored, Earned Runs Allowed and an overall Win/Loss model. After the models were run and results were produced, I then critically analyzed the effect of the variables against the three models stated above.

Natalie Tomerlin, Hadley Karrick, Shylee Garrett, Alex Gorusch, Sarah Funke, Gabe Tucker (Professional Development – CORE)

P3: Innovating CORE's Future

Project Advisor: Dr. Michael Edmondson

I-A-4: Hanson 102

With professional development becoming the forefront of the university experience, CORE will debut its newest program. P3: Peer Professional Programming is an office management opportunity exclusive to Augustana's campus. Created by students, the program

specifically targets the necessary skills for any work environment. Launching in fall 2015, this program works to expand upon the goals that CORE already has implemented on campus including managerial practices, collaborative projects and independent career training. In this session, we will provide insight into the creation, implementation and goals moving forward.

SESSION I-B (HANSON 304) 10:30 – 11:30 A.M.

Tyler Rolfe (Chemistry)

The Oscillation of Vanadium Complexes and Their Mechanistic Uncertainties

Project Advisor: Dr. Kurt Christoffel

I-B-1: Hanson 304

For decades, oscillating chemical reactions have been studied both theoretically and experimentally, and in this context, the word oscillation is referring to some component of the chemical system, typically intermediates, varying in a sinusoidal manner. When they were first discovered, many chemists questioned how and why they occurred. In the past century, several different groups of chemists discovered other oscillating chemical reactions, which typically involve oxidation-reduction or redox reactions. Some chemists have recently discovered that a particular vanadium complex known as [V(IV)OCl₂(bpy)] can act as a reactant in an interesting oscillating reaction in which the oxidation state of the vanadium metal center changes from +4 to +5. As a redox reaction, an analytical technique called cyclic voltammetry can be used to probe how the reaction proceeds when subjected to different reaction conditions. However, the vanadium complex does not need to be the one specified earlier, and this proposed experiment involves the potential oscillation of a similar vanadium complex undergoing a slightly different reaction. This proposal is significant because it can be used to help determine how and why these vanadium complexes react in this oscillatory fashion and their mechanisms.

Joseph Bullaro (Physics)

Atomic Nuclei on the Edge: The Story of ²⁵⁰

Project Advisor: Dr. Nathan Frank

I-B-2: Hanson 304

Measuring nuclei at the limits of detection allows us to arrive at a complete understanding of atomic nuclei. ²⁵⁰ is of interest since it contains one more neutron than the heaviest oxygen isotope directly detectable, ²⁴⁰. An experiment was performed in February 2014 to study ²⁵⁰ using a unique production method with a liquid deuterium target. The experiment was performed at the National Superconducting Cyclotron Laboratory at Michigan State University by the MoNA collaboration, which consists of 11 mostly undergraduate schools including Augustana. Since ²⁵⁰ is so unstable that it emits neutrons, we reconstruct it by simultaneous detection of one neutron and ²⁴⁰. This presentation will cover the experimental setup and data analysis performed at Augustana.

Nowlan Savage (Biochemistry)

Disruption of ODC1 in Yarrowia Lipolytica

Project Advisor: Dr. Pam Trotter

I-B-3: Hanson 304

Fatty acid metabolism is a hot topic in medical and biochemical research fields. The knowledge of how fatty acid metabolism is regulated and coordinated at the cellular level will give novel insight that could be used to cure many diseases. A gene called ODC1 encodes an inner mitochondrial membrane protein found in yeast that is important for cell survival when grown on fatty acids alone. This transporter has previously been studied in the yeast *Saccharomyces cerevisiae*, a yeast that prefers to grow on carbohydrates, but is presently being studied in the yeast *Yarrowia lipolytica*, a yeast that prefers to be grown on fat. The study at hand aims to identify a phenotypic difference in *Yarrowia lipolytica* yeast where the ODC1 has been deleted. This gene deletion will be carried out using PCR cloning and homologous recombination. This will continue to shed light on the importance of the ODC1 transporter to fatty acid metabolism.

SESSION I-C (HANSON 305) 10:30 – 11:30 A.M.

Shelby Stuparits (Anthropology)

Character and Costuming at the Renaissance Faire

Project Advisor: Dr. Adam Kaul

I-C-1: Hanson 305

Since the 1960s, more than 200 Renaissance Faires have emerged across the nation as places where one can drop into Medieval or Elizabethan England for a day. At these faires, one will see people sporting clothing not only from Elizabethan times, but also from modern and even fantastical worlds. With a focus on the Bristol Renaissance Faire of the Illinois-Wisconsin border, I investigate the relationships among performers and merchants, patrons and playtrons (people who attend the faire in costume).

Leslie Carranza (Anthropology)

From the Grassroots and Up: Formation of Transnational Identity for Migrants of Guanajuato and Illinois

Project Advisor: Dr. Adam Kaul

I-C-2: Hanson 305

In light of recent immigration reform and patterns, the significance of space in forming identity and a sense of community is in flux. In the case of Mexican immigrants from the state of Guanajuato and regions like the Quad Cities, there has been a long history of space being linked to groups of people through communal practices. Repatriation of home villages in Mexico manifests itself in a myriad of ways, most predominantly through remittances and social activism from as far off as the Midwestern United States. By looking at three different levels of grassroots organizations, this presentation is an analysis of what a transnational identity really means in its manifestations.

Eliza Wells (Anthropology)

The Construction and Expression of Identity Through the Tattooing Process: Masculinity and Pain Expression

Project Advisor: Dr. Adam Kaul

I-C-3: Hanson 305

Body modification, specifically tattooing, is a ritualistic form of individual expression and communal connection; the individual and the society in which he lives is reflected and reinforced on the skin

through symbolic designs, but also internally through the individual's interaction with pain. The phenomenological link between pain and meaning reinforces identity and communal connection. This paper specifically focuses on masculinity as a component of identity that is expressed through the ritual process of receiving a tattoo. Research was conducted through a combined method of participant observation and interviewing of tattoo shop artists and clients in the Quad Cities area. This research is consistent with sociocultural theory suggesting that ideas about masculinity and its effects on pain tolerance and expression are indeed relevant in explaining why men partake in more risk-taking behaviors and refrain from reporting pain in order to maintain images of stoicism and strength that ultimately affect their lifespan and health.

Nicole Tijerina (Anthropology)

Rowing Upstream: An Ethnography of Leisure and Competition

Project Advisor: Dr. Adam Kaul

I-C-4: Hanson 305

Sports is a fascinating and popular topic of discussion around the world. But what makes us so drawn to them as participants and as fans? This paper includes an ethnography of rowers at the Sylvan Boathouse in Moline, Ill., which gives an inside perspective into the training of competitive athletes. This fieldwork also presents an interpretation of the idea of sports as leisure and the discipline required in maintaining its practice. Furthermore, I utilize a variety of theoretical frameworks, such as conflict, cohesion and ritual, to uncover why learning about sports through an anthropological lens is crucial to understanding the impact it has on our culture.

SESSION I-D (OLD MAIN 28) 10:30 – 11:30 A.M.

Cody Schmitt (Biology, TMC Internship)

Effects of PEG-HCCs on Proteinases in Fibroblast-like Synoviocytes in Rheumatoid Arthritis

Project Advisor: Dr. Heidi Storl

I-D-1: Old Main 28

Pegylated hydrophilic carbon clusters (PEG-HCCs) inhibit the migration of fibroblast-like synoviocytes (FLS) from patients with rheumatoid arthritis (RA). Treating rats with the pristane-induced arthritis (PIA) model of RA with PEG-HCCs reduced disease severity. A mechanism of action of PEG-HCCs in these cells is being studied to further develop them as therapeutics for RA. Tests were performed to determine the effects of PEG-HCCs on the production of matrix metalloproteinases (MMPs) by FLS from patients with RA and from rats with PIA. Gelatin gel zymographies were performed on cell culture supernatants. Gelatin gels were loaded with culture supernatants for electrophoresis of denatured proteins. The proteinases were renatured, and allowed the now active proteinases to degrade the gelatin. The gelatin in the gel was stained, and any clear lines indicated proteinase activity, which meant the MMPs were active in the supernatants. The degree of gelatin degradation is correlated to the amount of MMPs in the supernatant, which allowed for quantification of the MMPs. The distance of migration in the gel correlates with the size of the proteins, which allowed for the identification of the MMPs based on their molecular weight. Results showed that both human and rat FLS produced MMP-2 and determined that with increased doses of PEG-HCC, there was less MMP-2 in the supernatants, which could indicate that PEG-HCC plays a role in blocking the synthesis or secretion of this MMP. This finding will lead to future studies that delve deeper into the molecular mechanisms behind the inhibitory effects of PEG-HCCs.

Alicia Strtak (Biology/Neuroscience, TMC Internship)

Exploitation of Enterocyte Calcium Signaling to Activate Chloride Secretion and Diarrhea

Project Advisor: Dr. Heidi Storl

I-D-2: Old Main 28

Rotavirus (RV) is the leading cause of viral childhood gastroenteritis. There are ~500,000 deaths worldwide annually. The present work uses in vitro testing methods to elucidate the molecular mechanisms of RV-induced changes in Ca²⁺ signaling that contribute to the phenotypic symptoms of a rotaviral infection in hosts. One molecular hallmark of RV infection is increased cytoplasmic Ca²⁺, which is prompted by targeted release and depletion of endoplasmic reticulum (ER) Ca²⁺ stores. Another hallmark is Ca²⁺ entry through Voltage Activated Ca²⁺ Channels (VACCs), which exist on the plasma membrane (PM). Data demonstrate that RV nonstructural protein 4 (NSP4) is a viroporin (viral ion channel) whose primary function serves to elevate cytosolic Ca²⁺. However, the molecular mechanisms of how NSP4 viroporin activity disrupts host Ca²⁺ homeostasis, and how these signals are paired to chloride secretion and diarrhea, remained poorly understood. We hypothesize that NSP4 forms a Ca²⁺ channel within the ER to release ER-derived Ca²⁺ and that ER Ca²⁺ depletion activates store-operated (SOCE) and voltage-activated (VACC) Ca²⁺ channels in infected host cells. Ca²⁺ entry through these channels in turn activates Ca²⁺-activated chloride channels (CaCCs), prompting Cl⁻ secretion into the lumen of the small intestine, resulting in diarrhea. Data also show that all SOCE Ca²⁺ inhibitors decrease overall RV-induced Ca²⁺ influx. Inhibited Ca²⁺ influx can be paired to reduced Cl⁻ secretion, mitigating phenotypic symptoms of rotaviral infection and improving quality of life for those affected.

Thomas Enke (Biology, TMC Internship)

Androgen Receptor Expression in Paired Primary and Metastatic Breast Carcinoma

Project Advisor: Dr. Heidi Storl

I-D-3: Old Main 28

Androgen is a steroid hormone found in both men and women that binds to androgen receptors (AR). Currently, the role of AR expression in breast cancer remains unclear. Several reports have found AR expression in 60-80% of invasive breast carcinomas. Similar levels of AR expression have also been found in regional lymph node metastases. The aim of this study is to investigate the expression of AR in paired primary tumors and lymph node metastases. Additionally, the relationship of AR expression to other clinical significant features was analyzed. A tissue microarray (TMA) was created using 72 cases of paired primary invasive carcinoma and lymph node metastases. AR was analyzed by immunohistochemical staining of the TMA. Our results show that all cases of invasive lobular carcinoma are AR positive. Also, there is no significant difference in AR expression between the primary tumor (50%) and lymph node metastasis (45%). Tumors expressing hormone receptors, but not expressing HER2 were AR positive in 75% of cases. Triple negative cases were typically AR negative (90%). In conclusion, the transition between primary tumor and lymph node metastases is not associated with a change in AR expression. Also, hormone receptor expression is associated with AR expression.

Sophia Kelly (Communication Sciences and Disorders, TMC Internship)

Offering More for Persistent Dysphagia after Head and Neck Cancer: The Evolution of Boot Camp Swallowing Therapy

Project Advisor: Dr. Heidi Storl

I-D-4: Old Main 28

Persistent dysphagia after head and neck cancer (HNC) is a challenging clinical problem. Swallowing therapy conventionally employs exercise at a low level of intensity, often carried out at home by the patient (i.e., a "home program"). While effective as a preventive regimen, a critical minority of HNC survivors have refractory dysphagia after cancer treatment that is not responsive to standard home program or low intensity swallowing therapy routines. A boot camp swallowing therapy program was started at MD Anderson Cancer Center in Houston, Texas, in 2012. Boot camp is a short, intense (daily, two to three weeks) outpatient therapy program. The hallmark of boot camp is mass practice of functional swallows in daily sessions that intensify the workload under a progressive-resistance model of exercise therapy. Published device-driven ("biofeedback") and bolus-driven paradigms were adapted and implemented in the program under similar therapeutic principles. A consecutive case series was examined to evaluate therapy practices and early outcomes after boot camp in patients with persistent dysphagia per modified barium swallow studies at least three months after HNC treatment. Results indicated that boot camp swallowing therapy shows promise for persistent dysphagia in HNC survivors. In this early program evaluation, conventional boot camp methods improved quality of life and functional status in a majority of patients, but did not resolve penetration/aspiration. Refinements to the therapeutic model are ongoing to address all facets of dysphagia including chronic aspiration particularly in challenging populations such as those with late dysphagia.

SESSION I-E (OLD MAIN 132) 10:30 – 11:30 A.M.

Callie Peterson (Women's and Gender Studies, Honors Capstone)

Sexual Assault, Victim Advocacy, and SART Programs: What's Right for Augustana?

Project Advisor: Dr. Jane Simonsen

I-E-1: Old Main 132

College campus sexual assault and university policy on sexual assault are both topics that have been explored extensively over the past couple of months. However, one aspect of sexual assault that has not been given much attention is the aspect of sexual assault programs and victim advocacy. During this presentation, I will present my research on SART programs that will focus on their effectiveness, the obstacles and successes of such programs, as well as the results that other colleges and universities have experienced through the implementation of SART programs, or variations of such programs, on their campuses. One outcome from this presentation is to inform students, administrative staff, faculty and the general audience alike about the benefits of SART programs and the positive effects that victim advocacy may have for victims of sexual assault. I will present a thought-provoking, evidence-based proposal of how a SART program, or a variation of such a program, could work on our college's campus and highlight some of the implications that could arise through the introduction of a SART program at Augustana College.

Hanna Anderson (Women's and Gender Studies, Honors Capstone)

Analyzing Rape Culture: A Look at Rape Culture on College Campuses by Using Rape Survivor Stories

Project Advisor: Dr. Jane Simonsen

I-E-2: Old Main 132

There has been plenty of talk about rape culture on college campuses, but what is it really? The first step of my presentation is to define rape culture on college campuses and investigate what it looks like in a college campus environment. I used five rape survivor stories by women who were in college at the time of their assault and compare the stories and their similarities. After comparing them, I will bring to light what aspects of rape culture were experienced by the survivors (ex., victim blaming, etc.) and then use the findings to map out what strategies we as a campus can do to stop it.

Chelsea Ashland (Women's and Gender Studies, Sociology)

Sexual Assault Prevention and Education Programs: The Current and Future Directions of Programming at Augustana College

Project Advisors: Dr. Jane Simonsen, Dr. Paul Croll, Dr. Marsha Smith

I-E-3: Old Main 132

The issue of sexual assault on college campuses is a problem that has been gaining increased attention in recent years. As Augustana College joins the ranks of institutions across the country charged with making campus-wide changes in efforts to produce awareness and safety, a strategic plan based in research and supported by data collected from Augustana students needs to be implemented. This study consisted of a survey conducted during April 2015 that aimed to collect the attitudes and opinions of Augustana students about the current sexual assault education and prevention programming on campus, especially in respect to who attends these programs and why. Additionally, this study aimed to gather baseline data on attitudes towards sexual assault and bystander attitudes and behavior. From the findings of this study in addition to existing research, suggestions will be provided to the college campus at large in best directions of changes to education and prevention programming to best improve the safety of the Augustana College campus and community.

Taylor McGinnis (History Education)

Equality in the Classroom: Teaching English Language Learning Students

Project Advisor: Dr. Lendol Calder

I-E-4: Old Main 132

In recent discussions about teaching history, people were talking about whether we are preparing students to participate in a democratic civilization. On one hand, some argue that a collective memory approach is necessary. Others say that an inquiry-based approach is necessary. My own thought is whether we are preparing all types of students to participate in a democratic civilization. To find out, I designed a project that focuses on English Language Learning (ELL) students. My central question is how can teachers effectively teach history to English Language Learning students? To help me draw conclusions on this question, it was helpful to have following kinds of information/data: how many ELL students are there in our schooling systems, and what approach are history teachers taking to effectively teach them. The key methods I used to generate or acquire this data were through academic journals and texts that we have been reading in history and education courses throughout my time at Augustana College. Some of the problems I foresaw were possibly a limitation of information directed towards the study of ELL

students in history courses. This issue is important because ELL students often fall behind in classes, but despite their differences, it is essential that they are engaged in an equal learning environment. Also, all students need to be effectively taught history in order to be prepared to participate in a democratic society.

SESSION I-F (OLIN 305) 10:30 – 11:30 A.M.

Dr. Jacob Bancks (Music Composition)

Why This? Why Here? What Next?: Building Musical Structures After Everything

I-F-1: Olin 305

As a composer born in the era Taruskin calls "after everything," I have always been aware that I am bound by no compositional orthodoxy. But if the answer to "May I write x?" is always "yes," the question then becomes, "How do I decide what to write?" By mid-2013, I found myself increasingly dissatisfied, not with my actual finished work, but rather with my compositional process, which had become excruciatingly inefficient. I came to the conclusion that I enjoyed too much freedom as an artist, and yet conversely had no desire to seek a standard practice by which to make artistic decisions. Could I fashion some loose, highly personal method of relating local events to larger structures? And as long as anything goes, could I find a way to make musical decisions more efficiently? In this paper, I detail how I arrived at the beginning of what has become my artistic path forward.

Kelvin Mason (Art)

Icelandic Exoplanets

I-F-2: Olin 305

For the summer of 2014, I was awarded an Artist's Residency at the Gullkistan Center for Creativity in Laugarvatn, Iceland. Gullkistan is a remote retreat near the edge of the Arctic allowing writers, artists, philosophers and other academics uninterrupted time and ample space to pursue their scholarship free of the distractions of the modern world. With the desolate and otherworldly Icelandic landscape as inspiration, several works with an ongoing theme of "exoplanets" [planets orbiting stars other than our own] were undertaken. NASA has confirmed the existence of more than one thousand of these distant worlds, but present imaging technology cannot resolve these exoplanets visually because they are too small and far away. However, NASA has a wealth of data on the probable attributes of these exoplanets gleaned from careful observations of gravitational wobbles and from variations in the brightness of the parent stars as the planets pass in front of them, blocking some of their starlight. Interpreting this data can reveal size, mass, density, color, orbital distance, composition, surface temperature, etc. I examine this data and make efforts to describe a plausible visual representation of the exoplanet based on these attributes. This talk will discuss my residency in Iceland, the process involved in creating the images, and the results of the inquiry.

Dr. Jennifer Burnham (Geography)

Tropically Disparate Levels of Blood Mercury in Breeding Birds of Northwest Greenland

I-F-3: Olin 305

Although the Arctic is often perceived as a pristine region, it is becoming increasingly polluted. Mercury (Hg) is a bioaccumulating neurotoxic heavy metal whose levels in terrestrial and marine avian species are prompting global concern. Pollutant source regions are not local, but extend south to midlatitude industrialized nations. Relatively few studies of avian Hg have been conducted in the High Arctic, and even fewer have been done using short-term, region-specific methods of blood mercury sampling. Over a three-year period (2010-2012), blood Hg levels were measured in 25 marine and terrestrial bird species (n = 588) in northwest Greenland (76° N, 68° W). This is likely the most comprehensive avian blood Hg study in the northern high latitudes. Stable isotopes of carbon and nitrogen were also used to indicate diet and trophic position. Mean blood Hg levels ranged from 21.1 to 731.3 ppb and were closely associated with trophic position. Because no studies of similar species at similar latitudes exist, it is unclear whether top trophic level species have reached toxic thresholds. Spatial patterns within northwest Greenland are not clear and latitudinal patterns are indiscernible due to the lack of comparable studies. Several shorebirds (*Phalaropus lobatus* and *Calidris maritima*) are species of concern that exhibit potentially worrisome patterns and warrant further study.

SESSION I-G (BERGENDOFF – LARSON HALL)

10:30 – 11:30 A.M.

Gary Miller (Creative Writing, Theatre Arts)

BAWLS: The Experience of Writing a Play

Project Advisors: Rebecca Wee, Dr. Jennifer Popple

I-G-1: Bergendoff - Larson Hall

I am a creative writing and theatre double major seeking to present my Senior Inquiry during this event. My presentation will entail my career aspirations and background at the beginning to explain why I chose this project. I will discuss the synopsis of the play and include an excerpt. I will be including visual inspirations and also the writing process in my presentation. The creative implications of this are to show what I have learned while at Augustana both academically and creatively. The purpose of this presentation is to show what I have learned in both the theatre and creative writing departments to create something tangible that I can take away from Augustana and implement in reality.

John D'Aversa (Asian Studies, Theatre Arts)

Bridging the Gap

Project Advisor: Dr. Jennifer Popple

I-G-2: Bergendoff - Larson Hall

A look into a double major's life, where no classes overlap for credit. Finding the common ground between an artistic major and a history-focused major. This presentation will consist of the two Senior Inquiries presented by John D'Aversa to the Asian studies department (Tae Kwon Do: A Martial Art for the World) and to the theatre department (Pounding Nails in the Floor with my Forehead), as well as a discussion of the difficulties of producing two separate inquiries and how to deal with the stress of making it all work.

Mara Cantrell-Paulson (Theatre Arts)

As We Like It: Incorporating Modern Theories & Technology into Shakespeare

Project Advisor: Dr. Jennifer Popple

I-G-3: Bergendoff - Larson Hall

Dramaturgy is a field that has existed in some form for centuries, but only recently has begun growing in American theater. In working on a dramaturgical casebook for an imagined production of Shakespeare's "As You Like It," modern technology has expanded the scope of what used to be simply a compilation of images and research. Through the use of Pinterest, Google Drive and Facebook, along with the standard written abstracts and article-gathering, this project has brought the works of William Shakespeare into the digital age. The transformation into modernity has assisted immensely with bringing out themes of class division, challenging gender normativity and countering traditional characterizations with the cast of Winnie the Pooh. This presentation is set up to give everyone a better understanding of what dramaturgy is and how it works in the 21st century.

SESSION I-I (COLLEGE CENTER BOARD ROOM)

10:30 – 11:30 A.M.

Paul Lewellan, Rachel Bennett, Tyler Benson, Kelsey Cunningham, Kaitlyn Czerwonka, Margaret Del Vecchio, Brian Fanning, Elizabeth Farwell, Colin Hepner, Kelly Johlie, Victoria Jones, Katherine Kelly, Chelsea Mentado, Kelsey Olive, Kristina Quinlivan, Danielle Rankovich, Shannon Smith, Madison Stoneman, Benjamin Wells, Stephanie Yelton (Communication Studies)

Dividing Lines: Campus Conflict, Division, Restoration, and Renewal

I-I-1: College Center Board Room

The news is filled with conflict. Sometimes the conflict is caused by ethnic, political or religious differences. Sometimes it's the result of skin color, sexual orientation or political beliefs. On a personal level, people may experience discrimination because of economic or socioeconomic factors, disabilities, gender, sexual orientation, physical attributes or cliques. This presentation by the Spring Performance Studies class connects the experiences of discrimination and division in our broader society to experiences in this campus community, for this audience and to these performers. The primary texts for interpretation will be memoirs, blogs, political rhetoric, interviews and current events. Additionally, some groups may draw on historical text, pictures, music, costumes and artifacts related to race, gender, sexual orientation, marginalized classes, ethnic groups and/or nationalities. The goal for the four groups presenting is to use found text to create a unique and unified performance dealing with one of the issues that divides the Augustana College community, and to suggest ways to come to a common understanding and more inclusive campus identity.

FEATURED PRESENTATION II (OLIN AUDITORIUM) 11:45 A.M. – 12:45 P.M.



Dr. Mike Egan plus members of the Comprehensive Learning Portfolio project (~11 faculty/staff members; ~25 students) [Liberal Arts]

Comprehensive Learning Portfolio Project: Showcasing Academic, Co-Curricular, Athletic, Residential and Social Learning at Augustana

**II-FEATURED PRESENTATION:
Olin Auditorium**

Over the course of this school year, more than 40 students and 11 faculty/staff members participated in a Comprehensive Learning Portfolio pilot project. Under the direction of their faculty/staff mentors, the students produced learning portfolios that showcased how their collective college experience (which includes academics, athletics, residence life, Greek Life, student government, internships, study abroad and many other things) enabled them to learn and grow in relation to Augustana's college-wide Learning Outcomes. The student participants were very diverse in terms of age (sophomores, juniors, seniors), academic majors and extra-curricular involvements. In this session, various project participants will share reflections and perspectives on the experience. Samples drawn from student portfolios will be shared as well. This session should be interesting to all members of the Augustana community. We are all devoted to the work of either fostering or developing Augustana's learning outcomes, and this session promises to share (1) how the learning outcomes are evident in student work and student experiences; and (2) a model for collecting evidence related to the learning outcomes. This session may also launch a conversation about what role a comprehensive learning portfolio might play in Augustana's curriculum and assessment system moving into the future.

SESSION II-A (HANSON 102) 11:45 A.M. – 12:45 P.M.

Elyzia Powers (Psychology)

It's Only Your Education, What's the Big Deal?

Project Advisor: Dr. Rupa Gordon

II-A-1: Hanson 102

Combining my Senior Inquiry research on self-discipline and academic success, the philosophy of John Dewey and the goals of undergraduate education, I will be making a call for an examination of how we value education as a community and country. By combining what the research says about non-academic variables that influence student success (self-control, self-discipline, etc.) and the philosophy of education held by John Dewey, this presentation will ask the audience to engage in reflection of their own learning and/or teaching habits, and participate in forging solutions to the problems that are faced during college. A strong emphasis will be placed on what the goal(s) of education currently are versus what they should be. Audience members will be engaged in discussions about assumptions in education, as well as reflection throughout the presentation.

Kayla Bushey (Communication Studies, Graphic Design)

don't be nervous. it's just a race.

Project Advisor: Vickie Phipps

II-A-2: Hanson 102

don't be nervous. it's just a race. is inspired from the things I love most, track & field and education. This is a simple poster with powerful meaning to take a deeper look into educating people about the racial discrimination of our society. People are afraid to push boundaries and learn, but it is time to stop being afraid and start talking. All too often we forget not only how far we have come to establishing equality, but also how far we still need to go. Track & field is introduced in the idea with a double play on the word "race." While one refers to the nerves before competing in a meet, the other refers to the fear of offending others of different skin tones. The poster would ideally be placed as a banner at a track stadium during a meet to connect with the people there and inspire conversation. Always remember – don't be nervous. it's just a race. This poster was created to fulfill an assignment in the Graphic Design 225 class, led by Professor Vicki Phipps. After struggling for 10 weeks and Vicki and I pushing ideas back and forth, the idea finally emerged and became concrete.

Vanessa Kirk (Sociology)

Interracial Relationships at Augustana

Project Advisor: Dr. Marsha Smith

II-A-3: Hanson 102

This research provides an in-depth analysis about Augustana students' opinions and actions regarding interracial relationships. My research addresses the interracial relationships people have engaged in only at Augustana and their opinions on whether they would engage in other types of relationships with someone of a race other than their own. The different types of relationships that have been examined (dating, fooling around and having sex) are analyzed to see the actual relational diversity Augustana claims to have. This research seeks to educate current and perspective students on the relationship diversity Augustana has.

Allison O'Hern, Allison Dzik, Somer Druszkowski (Education)

Opportunity Kicks Tutoring: The Benefits of Tutoring Programs for ELL Students

Project Advisor: Dr. Michael Scarlett

II-A-4: Hanson 102

Preparing English Language Learners (ELL) for success in general education classrooms must include opportunities to practice both oral and written language skills in authentic contexts. Opportunity Kicks, a non-profit soccer team serving the children of refugees and immigrants in the Quad Cities, has partnered with Augustana College to form Opportunity Kicks Tutoring (OKT), an organization dedicated to supporting the academic and social development of the children it works with. On average, 15 ELL students in third through ninth grades come to campus once a week where Augustana students spend approximately 45 minutes doing fun, interactive and educational activities followed by 45 minutes of tutoring and homework help. By assessing students' language use, we have determined that most students have strong Basic Interpersonal Communication Skills (BICS) but they lack proficiency with Cognitive Academic Language Proficiency (CALP), the ability to communicate in an academic context. To support the development of CALP language skills, we provide individualized tutoring and academic enrichment opportunities connected to their interests to practice these skills. In addition, we have found that our program has improved the self-efficacy of many of our students as it relates to their academic performance. Our presentation will provide an overview of our program, present our research findings and engage participants in an interactive activity to demonstrate the academic struggles ELL students experience on a daily basis.

SESSION II-B (HANSON 304) 11:45 A.M. – 12:45 P.M.

Nick Gornick (Biology)

Why Doesn't Chemotherapy Always Work? A Look at One Mechanism of Chemoresistance

Project Advisor: Dr. Scott Gehler

II-B-1: Hanson 304

Chemotherapy is currently the leading treatment for most cancer types, and most deaths from cancer are due to cells that have become resistant to chemotherapy. The epithelial mesenchymal transition (EMT) allows cells to go from having tight junctions, adhesive properties, rigid structure and polarity to cells that lose their adhesion, increased mobility and increase resistance to apoptosis. EMT induces tumor cells to undergo a change that results in populations of cells called cancer stem cells (CSCs). CSCs have properties that allow them to resist chemotherapy. EMT poses a problem for cancer treatment because it is a necessary process for healthy cells, but also allows for deadly tumors to form. Many mechanisms behind EMT and chemoresistance are not well understood, resulting in an inability to target it as a possible therapy. My research gives insight into a specific mechanism behind ineffective chemotherapy and the complexity that goes into treating cancer as a whole.

Kristina Bowen (Biology & Environmental Studies)

Detection of Fecal Contamination Using Molecular Methods

Project Advisors: Dr. Michael Reisner, Dr. Kimberly Murphy

II-B-2: Hanson 304

This study explores the process of designing a molecular method to detect fecal contamination in the urban watersheds of Rock Island and Moline, Ill. These urban watersheds are known to contain high ammonia levels and total dissolved solids based on previous studies. Additionally there is concern about the aging combined sewer and storm water system. Therefore, these watersheds are thought to have poor water quality including fecal contamination. Existing molecular methods used for detecting fecal contamination require a considerable amount of resources in the laboratory. Our goal was to design a molecular method that requires fewer resources and can continue to be used in laboratories at Augustana College. We will describe the method we have developed and discuss preliminary results.

Zeke Hartman (Biology/Pre-Medicine)

Implementing a Public Health Outreach Program

Project Advisor: Stephanie Fuhr

II-B-3: Hanson 304

This project, through the National Center for Rural Health Professions, gave five students the unique opportunity to research, design and implement a program designed to combat a public health problem in a rural area. The goal of the project was to increase awareness and prevention of diabetes in Lee County in Illinois. The project required the students to research the best methods for outreach, design their own materials to use in outreach programs, and execute multiple events aimed at awareness and prevention. This presentation highlights the process of putting the project into place, its execution and its desired outcomes.

Cody Hansen (Biostatistics)

Predicting Lyme Disease Incidence in Humans

Project Advisor: Dr. Mary Kathryn Cowles (University of Iowa)

II-B-4: Hanson 304

Early treatment of Lyme disease is important to prevent longterm complications like arthritis, pain, tingling in the hands or feet and problems with short-term memory. According to the CDC, only 10% of the 300,000 annual cases of Lyme disease are reported. Historically, models have used percent of forest coverage as the primary predictive variable in modeling Lyme disease. This is because ticks and their hosts live in forested areas. However, we do not have much data about ticks or many of their hosts. This is not the case for dogs. Millions of dogs are tested annually for Lyme disease, and we conjecture that this data should be included in future models. We built models that included factors like state adjacency and dog Lyme disease incidence, and then tested them against real world data. We found that dog Lyme disease incidence was the most significant predictor variable and improved our models predictive accuracy.

SESSION II-C (HANSON 305) 11:45 A.M. – 12:45 P.M.

Kathleen Andruch (Anthropology)

The Embodied Experiences of Breast Cancer: An Ethnographic Approach of Phenomenology

Project Advisor: Dr. Adam Kaul

II-C-1: Hanson 305

Previous studies regarding women diagnosed with breast cancer have merely focused on sexuality and femininity, rather than the experiences such as spiritual, psychological, embodied and social. The exclusion of these alternative experiences does not allow for research to establish holistic observations, but rather has pigeon-holed studies into a form of gender-bias. Taking an anthropological approach through ethnographic methodology, this research attempts to critique the previous bias and discover the phenomenological embodiment of these women's experiences with breast cancer.

Kiran Hundal (Anthropology)

Beyond St. Patrick's Day: Irish-American Ethnic Continuity in the South Side of Chicago

Project Advisor: Dr. Adam Kaul

II-C-2: Hanson 305

This research examines ethnic continuity among Irish-Americans from the South Side of Chicago. Based on ethnographic fieldwork in Palos Township, Chicago, the study investigates how Irish-American identity is continually being expressed in the age of globalization among members who identified as "100% Irish." The participants largely feel that the sense of "Irish-ness" is decreasing as the years go on, especially with the diversification of neighborhoods. Although they expressed that Irish-American ethnic identity is being replaced with a more global view of ethnicity and also a globalized ethnicity, I propose that the participants still feel a strong connection to Irish-American identity through acts like practicing Irish dance or the passing down of various stories, and especially through the purposeful agency of combatting against what they perceive as negative Irish-American stereotypes.

Micaela Terronez (Anthropology)

Our Father or Padre Nuestro: An Ethnographic Study of Mexican American Identity and Language in a Catholic Church

Project Advisor: Dr. Adam Kaul

II-C-3: Hanson 305

Mexican Americans have been residing in the Midwest for more than a century. Therefore, within St. Mary's Catholic Church in Moline, Ill., recent Mexican immigrants congregate with a mix of native-born Mexican Americans and older Mexican American immigrants. St. Mary's serves as an example of the tension that can arise when multiple generations of Mexican Americans interact. This ethnic group is frequently seen as a homogeneous unit. However, Mexican Americans negotiate daily as to if and when to use Spanish. This presentation explores the complex relationship between language and identity, and how this relationship influences the arguments about the integration of Mexican Americans into mainstream American society. My research uses an ethnolinguistic approach, and hence suggests that language barriers and ideologies trigger disunity within St. Mary's. Yet, I will also examine how this church simultaneously functions as a place of solidarity among Mexican Americans in the Quad Cities community.

Margaret Richardson (Anthropology, Geography)

Growing a Sense of Place: Community Gardening by Burmese Refugees in Rock Island, IL

Project Advisor: Dr. Adam Kaul

II-C-4: Hanson 305

As the number of immigrants and refugees settling in the Midwest continues to grow, members of community organizations, religious institutions and local governments work to meet the needs of these diverse newcomers. With unique cultural knowledge and an interest in food production, many Burmese refugees in Rock Island participate in community gardening as a way to engage with and make sense of their new locale. As community leaders and government officials work to create inclusive and productive spaces for refugee gardeners, the power dynamics—and sometimes tensions—existing between these various entities are revealed within the space of the garden. This paper explores the ways in which Burmese refugees and the actors with whom they engage navigate complex cultural dynamics to create a sense of place in their gardens and the community at large. The findings of this research will help to inform best practices for effectively integrating stakeholders on all scales.

SESSION II-D (OLD MAIN 28) 11:45 A.M. – 12:45 P.M.

Leah Baumgart (Communication Sciences and Disorders)

The Device Life of the Tracheoesophageal Voice Prosthesis

Project Advisor: Dr. Heidi Storl

II-D-1: Old Main 28

Objectives: The purpose of this study is to assess and compare the device lifetimes of various voice prostheses used for alaryngeal speech based on prosthesis type and other influencing factors.

Study Design: Retrospective cohort study.

Methods: We reviewed medical records of patients who had undergone a total laryngectomy and used a voice prosthesis (July 2003–December 2013) to determine their device life and factors affecting device life. Medical records from a U.S. cancer center were used.

Results: This study shows a typical device life compared to other studies of its kind. In comparing voice prostheses manufactured

by Smiths Medical, InHealth Technologies, and Atos Medical, the current study indicates that Atos products have the highest median lifetimes. The Provox ActiValve, which was found to have the highest median device duration, is manufactured with magnets in the valve, preventing inadvertent opening and malfunctioning. This particular prosthesis is created specifically for patients who experience early leakage and poor prosthesis life, which is consistent with the results of this study.

Conclusions: The tracheoesophageal voice prosthesis is considered the gold standard of alaryngeal speech methods used by individuals who have undergone a total laryngectomy. Quality of life, safety, patient health and cost are contributing factors when choosing what type of voice prosthesis to use. With a better understanding of device life, patients and health care providers can make informed decisions about these products. Based on the current research, Atos Medical products offer the longest device duration, with the Provox ActiValve providing the longest median lifetime.

Benjamin Hodges (Nutritional Physiology)

New Generation Lipid Emulsion Protects Against LPS-Induced Brain Inflammation in Premature Piglets

Project Advisor: Stephanie Fuhr

II-D-2: Old Main 28

Background: Premature infants provided parenteral nutrition (PN) high in n-6 polyunsaturated fatty acids (PUFA) have increased risk of inflammatory disease, such as nosocomial sepsis. The pro-inflammatory insult can also contribute to injury and delayed neuronal growth in the perinatal brain. Provision of high long chain n-3 PUFA in parenteral lipids is associated with decreased inflammation and incidence of sepsis. The provision of n-3 PUFA, especially docosahexaenoic acid (DHA) also is critical for neurodevelopment in premature infants.

Aim: To determine whether a new generation lipid emulsion high in n-3 PUFA (SMOFlipid) protects against inflammation and improves neuroprotection in response to lipopolysaccharide (LPS) compared to a lipid emulsion high in n-6 PUFA (Intralipid).

Methods: Preterm piglets delivered 7 d preterm were assigned into two groups receiving complete TPN containing either Intralipid or SMOFlipid at 10 g*kg⁻¹*d⁻¹ for 10 d. On day 10, sub-groups of piglets were assigned to receive either an 8-hr infusion of lipopolysaccharide (2 mg/kg) or control saline and target gene expression in brain tissue was analyzed.

Results: LPS increased brain gene expression of pro-inflammatory cytokines IL-6, IL-8, and TNF in the Intralipid group, but not the SMOFlipid group. The gene expression of the anti-inflammatory cytokine IL-10 was increased in both LPS-treated lipid groups. Brain-derived neuronal growth factor, a marker of neuronal proliferation, was decreased in the LPS-treated SMOFlipid group, but not the LPS-treated Intralipid group.

Conclusions: SMOFlipid protected against LPS-induced inflammation, but did not acutely increase the expression of the neuroprotective protein, BDNF, in the presence of LPS.

Kerry Robbins (Psychology, TMC Internship)

TMCSRIP-Children's Art Project

Project Advisor: Dr. Heidi Storl

II-D-3: Old Main 28

As a chosen participant, among 10 Augustana students, for the Texas Medical Center Summer Research Internship Program, I was privileged to intern under the volunteer coordinator for an organization affiliated with MD Anderson Cancer Center in Houston, the Texas-Children's Art Project. Throughout the summer, I closely collaborated with interdisciplinary team members administering art class for pediatric patients, designed and implemented window and event displays, served as a camp counselor, and led a project of selection and preparation of canvas artwork products to be displayed in the Houston Texas Hobby airport in fall 2014.

Christine Nyquist (Music, Psychology)

Future Directions for Music Therapy: The Case for Adults with Intellectual Disabilities (ID) and Mental Illness

Project Advisor: Dr. Sangeetha Rayapati

II-D-4: Old Main 28

Adults with intellectual disabilities have more complex health issues than the general population, yet they are less likely to receive quality care. These individuals are also at higher risk of having a mental illness than the general population. This dual diagnosis makes caring for and treating this specific population an ongoing difficulty. As an intern at Goodwill of Heartland's Day Habilitation Center in Davenport, Iowa, I was able to work with this population and witness these types of difficulties firsthand. Adults with disabilities are in need of more access to a therapy technique that is just as unique as they are. The evidence-based practice of music therapy is the alternative therapy that can provide quality care by reaching individuals regardless of cognitive, verbal and even physical skill levels. Music therapy has had a role in mental health for thousands of years. Today, the need for more research of its role with this specific population is necessary to standardize methods and help individuals who need quality care the most.

SESSION II-E (OLD MAIN 132) 11:45 A.M. – 12:45 P.M.

Bethany Lewin (History Education)

Empathy in the History Classroom

Project Advisor: Dr. Lendol Calder

II-E-1: Old Main 132

Empathy is important in history and can be used to further students' historical skills and interpersonal skills. It is required by the state that high school students encounter empathy—the state social emotional learning standards for upper high school include "Demonstrate ways to express empathy for others." Of course when students leave high school, we want them to be able to see from other perspectives and have empathy for others. However, there is not a specific class that addresses social and emotional learning standards. It fits well with social studies to include this because we already have to think about seeing other perspectives and understanding people and time periods that we don't understand. This presentation explores how history teachers can teach empathy while allowing students to think for themselves and still use history appropriately and not as a well from which to draw emotional experiences. I will focus on research and consider how caring already plays a part in the classroom. It is a crucial part of student motivation, that they care about what they are learning matters and that teachers show

that they care about content matters as well. My central question is how can we help students to develop into more empathetic individuals appropriately within social studies classrooms, while also teaching other historical skills.

Alexander Meier (History Education)

The Prevalence of Narrative in American History Education

Project Advisor: Dr. Lendol Calder

II-E-2: Old Main 132

Many believe that stories are instinctual to humans and that we are hard-wired to comprehend information when it is presented in narrative form. Others have pointed out that the craft of storytelling shares company with the oldest of all human arts. A persistent argument amongst historians who are concerned with history education is the role that narrative should play in teaching history. Some historians believe that narratives can be extremely effective in teaching history due to the familiarity students have with narratives, the interest in history narratives can spark, and the ability that narratives have to present facts in a cohesive manner. Other historians are skeptical about the use of narratives in history education and believe that they have the tendency to simplify the past. My research seeks to weigh the positives and negatives behind the use of narratives in history education and to determine what strategies lead to the effective use of narrative in the history classroom. In addition to examining the findings of historians and educators concerned with this topic, I interviewed Augustana students and local high school students. These interviews gave me a sense of the role narrative played in their experiences with history education, and whether they believe it positively impacted their learning of history.

Rowan Crow (History Education)

The Role of Theatre in the History Classroom

Project Advisor: Dr. Lendol Calder

II-E-3: Old Main 132

The past is a foreign country. It is important that history students know that judging the past through the rose-tinted glasses of the present will bias their conclusions. Yet, this can't discourage us. We want our students to understand the past; we want to impress upon them history's relevance. We want our students to be able to think historically—to have a sense of historical empathy that translates into their everyday lives when they strive to understand their peers. We want our history students to know that when we understand the point of view of another, we are still free to draw our own conclusions. How do we teach our history students to understand these vital aspects of historical thinking? To reach these ends, we can introduce drama and theatre into the history classroom. Theatre can be used as a tool to unlock students' minds and transport them into the minds of others. Through drama in the history classroom, students will be able to not only understand past actors more deeply, but also understand their peers. This presentation explores methods of drama that can be used to teach historical thinking skills, how effective these methods can be, and what their limitations are. Perhaps one of the noblest things history teachers can teach their students is how to empathize, and incorporating drama into the history classroom is a means to reach this end.

Connor Cummings (Teaching History)

Teaching History with Graphic Novels

Project Advisor: Dr. Lendol Calder

II-E-4: Old Main 132

Historical inquiry is an important, unnatural skill that students begin to develop throughout middle school and high school. As history teachers, we want our students to understand the past and have an understanding of what it means to think like a historian. Student interest and engagement has been a concern for many teachers in the social studies content area. How can we get students to become interested in history? Graphic novels can be a new and effective strategy to get students interested and engaged in historical inquiry. Several education and history researchers support the strategy of using graphic novels in the classroom that introduce students to important historical analysis skills like contextualization, corroboration and sourcing. Others believe that graphic novels are unprofessional and have no place in an academic setting. Graphic novels can provide students with an engaging multimodal medium to study history and begin to develop historical inquiry skills. The use of graphic novels can help introduce students to historical analysis and historical thinking skills while simultaneously increasing student engagement. This presentation explores the effectiveness of applying graphic novels to teaching history at the middle school and high school levels.

SESSION II-F (OLIN 305) 11:45 A.M. – 12:45 P.M.

Dr. Jessica Schultz (Psychology)

Establishing Training for Psychotherapists that Works

II-F-1: Olin 305

Most clients seeking psychological services do not receive the best available evidence-based treatments, and a primary contributor to this is a lack of clinician competence in these treatments. Unacceptably, the most widely used methods to develop competence in clinicians who are practicing in the field do not work. My research examines how to effectively train mental health clinicians to provide evidence-based treatments so that clients have access to best available therapies. In this presentation, I will describe our approach to educating clinicians in a specific type of psychotherapy through a large-scale training program. The structure of the training program, lessons learned from the process, and evidence of effectiveness will be discussed. Applications to other health-care professions will be emphasized.

Dr. Shara Stough (Psychology, Behavioral Neuroscience)

Developing an Animal Model for PTSD: Engaging Students in Scientific Inquiry

II-F-2: Olin 305

Post-Traumatic Stress Disorder (PTSD) in humans is thought to result from unusually strong memory for a stressful, often life-threatening, experience and the associated environmental cues that occurred at the time of the event. To study this question in the lab, we exposed chicks to predator-related stimuli paired with neutral environmental cues and measured their fear behavior. In this presentation, I will share some of our recent progress in the study of fear memories in chicks and discuss some current directions of our research. Beyond the specifics of our scientific question and what we study in the lab, I will highlight what I consider to be some of the most important things that students can learn from these kinds of research experiences.

Dr. Daniel Cortis, Kori Marcum (Psychology)

What Eye Movements Can Tell Us about Attention, Perception, and Language

II-F-3: Olin 305

Students from psychology and neuroscience have developed several experiments this year using a newly acquired piece of equipment: an infrared gaze tracking system. In this talk, we will demonstrate how this technology allows us to record and time eye movements while a research participant is presented visual information on a computer screen. In addition, we will show how we have applied these methods to study topics ranging from linguistic processing to photojournalism. Finally, our main emphasis has been an examination of how people identify and process facial expressions with a specific interest in the role of race. We will discuss why race is an important issue in face-processing research and discuss what we have been able to learn from our data.

SESSION II-G (BERGENDOFF – LARSON HALL) 11:45 A.M. – 12:45 P.M.

Kelly Sullivan, Leslie Kane, Dr. Jennifer Popple (Theatre Arts, Pre-Health Sciences, Communication Sciences and Disorders, Neuroscience)

Learning Empathy through Applied Theatre: A New Methodology for Success

II-G-1: Bergendoff – Larson Hall

In this presentation, presenters will discuss cutting-edge research in the medical and business fields: that the most successful doctors, businesspeople and leaders are those who have learned and show empathy to others. The group will talk about its work, funded through Augustana's Faculty Summer Research Grant and the college's Faculty-Student Partnership grants, which culminated in workshops for pre-med, pre-vet, pre-physical therapy, and communication sciences and disorders majors this academic year. Kelly Sullivan, a pre-med and neuroscience major, will talk about learning empathy in the medical fields; Leslie Kane will talk about using empathy in counseling; and Dr. Jennifer Popple will discuss how it can be used to ensure success in business and other leadership fields. The workshop will include one interactive portion and showcase photographs and videos from previous workshops.

Mariana Noga (Theatre Arts)

Painting for the Theatre: A Demonstration and Exhibition

Project Advisor: Jeff Coussens

II-G-2: Bergendoff – Larson Hall

Presentation of various faux finished paintings from my summer internship at Cobalt Studios in White Lake, N.Y.—plus a short painting demonstration (a.k.a. seven-minute marble).

SESSION II-H (LIBRARY – 2ND FLOOR NORTH)

11:45 A.M. – 12:45 P.M.

August Marlana DeLuna, Rukmini Girish, Shannon Leyva,
Nathan Mittelbrun, Padraic Price, Sarah Reidel
(Creative Writing)

A Room You Could Come To In

Project Advisor: Rebecca Wee

II-H: LIBRARY– 2ND FLOOR, NORTH

This will be a group reading; students will read/recite/present excerpts from their creative work in poetry, fiction and creative non-fiction. They may elect to briefly describe their projects or book, or to read the work without explanation. Each student will have approximately 10 minutes.

FEATURED PRESENTATION III (OLIN AUDITORIUM) 1 – 2 P.M.



Ebony Allen (Philosophy, TMC Internship)

Behind the Science

Project Advisor: Dr. Heidi Storl

**III-FEATURED PRESENTATION:
Olin Auditorium**

Medicine is a field that isn't just about doctors, nurses and scientists. There are also people working behind the scenes in science that make things possible.

This is one of the lessons I learned while working this past summer at Baylor College of Medicine in Houston, Texas. While interning in the president's office, my main focus was to work on projects for Baylor Global Initiatives. Baylor Global Initiatives serves many roles; one of the primary objectives for the center is medical education. Specifically, I was assigned to create documents for a potential collaboration between Baylor College of Medicine and the Cogito Scholarship Foundation.

Besides working on this potential collaboration between Baylor and the Cogito Scholarship Foundation, I helped contribute to other projects, including creating documents on information regarding Baylor's accreditation (specifically, SACSCOC and the QEP topic selection process), FY14 strategic plan spreadsheet, global demonstration grants spreadsheet, global health conference list, competitive analysis research for clinical research training programs based on a successful course Baylor created for Monterrey Tech Physicians with the intent to expand, and a few more. Overall, I learned what it takes to be a project manager in an administrative office environment and to effectively understand how to work with others on projects. In this presentation, I take the audience on my personal journey to how I became passionate about working "behind the science."

SESSION III-A (HANSON 102) 1 – 2 P.M.

Leesa Potthoff, Kaitlyn Czerwonka (Elementary Education)

Bridging the Gap at The Florida School for the Deaf and Blind

Project Advisor: Dr. Deborah Bracke

III-A-1: Hanson 102

During a five-day immersion experience at the Florida School for the Deaf and Blind (FSDB) in St. Augustine, Fla., we interacted with students who are visually impaired. These students inspired us to write and illustrate a children's book that would help elementary students understand and embrace the concept of a visual impairment. We hope that this is the start of a series of children's books. We also addressed some of the misconceptions surrounding blindness by examining vision from the student's perspective. Interviews conducted with current FSDB students raised our own awareness about "disability" and further educated us about being good citizens and responsible human beings. Our culminating projects included the children's book to spark understanding and conversation with students, a compiled video of interviews informing others about visual impairments, and a catalogue to bring all the components of the experience together. We are excited to share this Augie Choice experience with you—an immersion that enabled us to transform "learning service" into "service learning."

Brian Jozwiak (Music Education)

Exploring Masterful CMP Teaching: The Comprehensive Musicianship Through Performance Model

Project Advisor: Dr. Michael Zemek

III-A-2: Hanson 102

Comprehensive Musicianship through Performance (CMP) equips music teachers with a process for planning instruction that enables music students to have deeper understanding and more meaningful musical experiences through performing challenging and diverse musical repertoire. I have been exposed to this approach to teaching through my high school choir experience, undergraduate methods courses, and student teaching. Each of these experiences has shown me that CMP promotes rich learning opportunities for students. An aspiring music educator myself, I am seeking to broaden my understanding of the model through investigating the historical and philosophical foundations of CMP and through experiencing CMP in a variety of real-world contexts. I have conducted four case studies of secondary choir directors in an effort to understand how choir directors utilize the model. I have also planned and executed my own CMP Teaching Plans with a local school. I will examine the themes that emerge from these experiences to show how CMP is utilized in real-world contexts, if at all. Also, I will suggest strategies for novice music teachers, like myself, to use CMP more effectively.

SESSION III-B (HANSON 304) 1 – 2 P.M.

Lorraine Stamberger (Geography)

Reaching the Water's Edge: Assessing Riverfront Accessibility in the Quad Cities Area

Project Advisor: Dr. Matthew Fockler

III-B-1: Hanson 304

The purpose of this research is to understand the level of access people in the Quad-Cities community have to the Mississippi River. Specifically, this study explores how accessibility levels differ in the cities of Davenport, Bettendorf, Rock Island and Moline. Also, it explores how the level of measured accessibility relates to the perceived image, use and accessibility of the Mississippi River. Information about public accessibility comes from a newly created Mississippi River Accessibility Index (MRAI) and resident surveys. The MRAI combines six indicators to measure accessibility to the river. Applying the indicators to the four cities, Moline ranked number one in having the best accessibility to the Mississippi River while Bettendorf ranked last. The cities of Davenport and Rock

Island ranked two and three, respectively. Aligning with the index results, surveys showed that Moline residents have a higher level of perceived access to the river than residents in the other cities. In addition to perceived access, perceived image and use varied based on the city of residence. Concerning image, respondents used very different language in describing the Mississippi River, calling the river everything from "majestic" and "a national landmark" to "sick with pollution" and "smelly." Despite some negative connections with the river, more than 80% of all respondents (N=138) say they agree that their city is a "river town."

Christian Mantbriand (Geography)

Locating Levees: Using Lidar Data and Logistic Regression

Project Advisor: Dr. Reuben Heine

III-B-2: Hanson 304

The location and condition of levees has become an increasing concern for the United States, and a comprehensive database is needed to assess our country's preparedness for future flooding events. The purpose of this research is to create an automated procedure that will locate levees, increasing efficiency and cost compared to current manual methods. This is achieved by manipulating elevation data with the spatial analysis program GIS and inputting this organized data into a logistic regression model that would identify areas of 3 x 3 feet as levees or non-levees. A small region south of the Rock River was the study area of this research and proved to be ideal due to the presence of both levees and levee-like structures that would be falsely identified as levees. Structures such as elevated highways would appear similar to levees, and a goal for this research is to minimize false positive identifications. Research on this topic has not yet been completed in the United States, Completion of such would be beneficial for bodies such as the Army Corps of Engineers and FEMA.

Anissa Pemberton (Political Science)

Local Realities of Philanthrocapitalism

Project Advisor: Dr. Mariano Magalhães

III-B-3: Hanson 304

In this analysis of interviews with nine not-for-profit employees, I argue that fear and tradition in the funding priorities of private foundations has the longterm result of limiting the local social service sector substantially. Particularly, the effect of philanthrocapitalism is felt within those topics that are deemed by the foundations to be too unstable or new to provide monetary assistance. Exasperating these realities is the missing stability of government funding for new organizations. In the Quad Cities, the main segments currently feeling the most significant financial strain are immigrants and refugees. In this ethnographic interview study of nonprofit employees, I examine the financial contrasts between established and immigration organizations. Additionally, I reflect on my experiences within the sector as an intern between April and September of 2014.

Aubrey Waddick (Political Science, Environment)

Changing Environments and Evolving Policy: A comparative analysis of international environmental operations in China and the U.S.

Project Advisor: Dr. David Dehnel

III-B-4: Hanson 304

In the past half century, China has experienced unparalleled growth in the economy and in pollution. Air pollution in particular has become a substantial issue which had attracted immense international attention. The 2013 airpocalypse prompted the PRC to mitigate its pollution through stronger policies, greater enforcement and agency

reorganization. International non-governmental organizations (INGOs) saw these developments as a window of opportunity to partner with and enhance the government's effectiveness. However, China's unique political environment and vague regulations for international groups present INGOs with unfamiliar challenges. To be successful, groups operating in the PRC have revamped their past techniques and practices to fit into a Chinese context. Given the opaque nature of the Chinese government, it's natural to assume these patterns differ significantly from other political contexts, such as the United States. But, just how divergent are these strategies of interaction, and how far do strategies within a single organization change from one political context to another? Do similarities exist between the Chinese and U.S. context, and what lessons can be learned and exchanged across seemingly impenetrable political, social and cultural boundaries?

SESSION III-C (HANSON 305) 1 – 2 P.M.

Roberto Espinosa (Anthropology, Honors Capstone)

Good Pup! A Sexual Fetish as a Religious Experience

Project Advisor: Dr. Adam Kaul

III-C-1: Hanson 305

Academic work on sexual fetishes, primarily within Leather and BDSM communities, has briefly touched on spiritual experiences felt by participants, but it has not enclosed around this concept. In my own fieldwork, I found that my own participants elucidated similar spiritual experiences felt while "in the pup scene." Embracing this aspect, I look at the Puppy Community and the Pup experience through the framework of religious experiences. A paucity of academic work on newly formed sexual fetish communities, like the Puppy Community, permeates academia. Current works on sexual fetishes seek to pathologize rather than study fetishes as rich communities; the few that do focus on the hyper-masculine performances of BDSM/Leather or the antediluvian concept of tribal associations. NOTE: The presentation topic concerns sexual matters and may offend some attendees.

Patricia Kautenberger (Biology, Honors Capstone)

Alzheimer's Disease and the Importance of Music Therapy

Project Advisor: Dr. Robert Tallitsch

III-C-2: Hanson 305

Worldwide, statistics suggest that by the year 2050 as many as 80 million individuals will be living with Alzheimer's disease (AD). Because current pharmacological interventions can only slow its progression, the pathology eventually overcomes the benefits of the medications, thus leaving a deficit in long-term treatment. However, the preservation of the brain's ability to work with and benefit from music has created a window of opportunity for an alternative treatment. Music therapy has been shown to be a promising alternative treatment because it has very little risk, and studies suggest that it is effective in improving familiarity and recollection in individuals with AD. This research proposal aims to question the relationship between familiarity and recognition through the use of active music therapy, and hypothesizes that music therapy can strengthen voice familiarity and therefore improve family recognition.

Alex Odenkirk (Honors Capstone)

Running in Circles: The Effects of Long Distance Running on the Pursuit of Human Happiness

Project Advisor: Dr. Paul Olsen

III-C-3: Hanson 305

The sport of long distance running has become an immensely popular sport in recent years, despite its reputation of being one of the most physically and mentally taxing activities available to the average person. Hundreds of thousands of people from all walks of life stumble out the door on a daily basis to run everything from two miles to the exotic double-marathon (and distances beyond even that). Through my research, I sought to determine whether running has a profound positive, spiritual effect on the lives of those who practice it. By reading a number of books written by famous athletes, casual joggers, legendary coaches and ancient philosophers, I was able to write a paper discussing how running moves runners toward what is, according to Aristotle, the end goal of life: happiness. After all of my research, and countless hours out on the road myself, I believe I have come to the conclusion that there is something more meaningful to the sport than the pursuit of shiny medals and a slimmer physique, which is universally understood by all who run regularly. My work hopefully will help some to justify an activity that many judge to be slightly insane, and perhaps convince others to take those first few steps out the door.

SESSION III-D (OLD MAIN 28) 1 – 2 P.M.

French Student Panel-I: Kiran Hundal, Maissie Giacobelli, Emily Pavlik, Jessica Gerdisch

Kiran Hundal (French)

The Phenomenon of Food in Dany Laferrière's "Pays Sans Chapeau"

Project Advisor: Dr. Chadia Chambers-Samadi

III-D-1: Old Main 28

An examination of Dany Laferrière's "Pays Sans Chapeau," this research takes a closer look into the novel's meal scenes and the relationship that they share with the formation of the self for the narrator, and by extension the author himself. The presentation will look into how the meal scenes provide an insight and also a complexity to the narrator's cosmopolitan identity. The presentation argues that the food and meals in the novel are used instead to tie the narrator to his Haitian ethnic identity, even after exile. Using an anthropological lens, the research examines food and its connection to the themes of memory, communication and sense of place.

Maissie Giacobelli (French)

The Influence of U.S. Culture in Dany Laferrière's Novels

Project Advisor: Dr. Chadia Chambers-Samadi

III-D-2: Old Main 28

The United States has influenced the contemporary Haitian writer, Dany Laferrière, in many ways. Specifically in his novels "Comment faire l'amour avec un nègre sans se fatiguer" (How to make love to a black man without getting tired) and "Vers le Sud" (Going South), Laferrière references many American authors (such as Ernest Hemingway, Henry Miller, Chester Himes, James Baldwin, etc.) and jazz musicians (such as Duke Ellington, Charlie Parker, Billie Holiday, etc.). Another way the United States has impacted Laferrière's novels is through his use of English expressions and phrases. Most of his references to American culture and language are used to critique society and deconstruct the stereotype of the black man both in the United States and in Haiti.

Emily Pavlik (French)

Didactics in Dany Laferrière's "Pays Sans Chapeau" and Children's Books

Project Advisor: Dr. Chadia Chambers-Samadi

III-D-3: Old Main 28

This is an exploration of the didactics used in Haitian author Dany Laferrière's literary work. The presentation will address specifically the didactics in Laferrière's "Pays Sans Chapeau" and a selection of his children's books, all written in French. A major theme emerging from the literature is the way Laferrière discusses death and the dead in both the novel and children's books. His use of didactics provides an insight into how the Haitian culture experiences and views death, including aspects of "voudou" or voodoo. While the paper and research was conducted in French, the presentation will be given in English.

Jessica Gerdisch (French)

"Creole is my Home": Haitian Creole in Dany Laferrière's "Pays Sans Chapeau"

Project Advisor: Dr. Chadia Chambers-Samadi

III-D-4: Old Main 28

This presentation examines Dany Laferrière's relationship with Haitian Creole and his use of it in his novel, "Pays Sans Chapeau." Each chapter of the novel begins with a traditional Haitian proverb in Creole followed by a French translation of the proverb. The presentation will concentrate on the differences between the original and the translation, as well as how the proverbs contribute to three overarching themes of the novel: food, time and death.

SESSION III-E (OLD MAIN 132) 1 – 2 P.M.

Kellen Price (History)

Teaching the Great Depression

Project Advisor: Dr. Lendol Calder

III-E-1: Old Main 132

One of America's darkest hours was in the Great Depression. The genesis of the Great Depression was on Black Tuesday. The stock market crashed, ergo many companies' assets became null and void. Millions of Americans responded out of panic by rushing to banks to withdraw their savings, only to find out that many of them could not receive money. Poverty plagued the nation overnight. The Great Depression produced multitudinous ramifications that adversely changed the country forever. Several citizens became skeptical of the federal government, and many worried about surviving. The Great Depression has gained recent light because of the recession of 2008. One can argue when the recession ended but regardless, many in this generation have an understanding of economic and social downfalls. Ergo, I postulate what started, mitigated and ended the Great Depression. This will be carried out by creating a theory to move students—particularly by utilizing epistemological understandings, foreground ideas, background ideas and analytical capacities. Doing this will foster learning in the classroom for a broad and deep topic such as the Great Depression. Students and observers will be able to become more critical of past events. An example of this will be to assess and identify policies and events in the depression and how they positively or adversely affected the public as well as view diaries and other aspects of social history. This will allow the audience to create a moral judgment, stirring up their humanizing experience of historical thinking.

Patrick Lenz (History Education)

The New AP U.S. History Test

Project Advisor: Dr. Lendol Calder

III-E-2: Old Main-132

The new changes of the AP U.S. history test has experts talking about whether the new 95-page framework is necessary or even helpful for high school students. Some argue that this new test, which focuses more on analysis than memorization. It has students looking deeper into sources and answering more open-ended questions than just multiple choice. The changes seemed necessary because certain universities and colleges have stopped accepting the credits that come with the AP course. The old test that just had students study and memorize flashcards does not prepare students for the college course. But, there is disagreement that this new test is "anti-patriotic" because it emphasizes negative aspects of the nation's history. In sum, the issue seems to be whether the new framework for the AP test is helping prepare students for college-level courses by analyzing sources or if it should be simply thrown out because it makes students question their nation's history. There could be a long-term benefit from this new version of the AP U.S. history test. Taking a test that is based more on analyzing sources could create more of an interest in students to further pursue history.

Kelcie Great (History Education)

Citizenship in Social Studies Education

Project Advisor: Dr. Lendol Calder

III-E-3: Old Main 132

Voting, engaging in debates, accepting other viewpoints in conjunction with your own; these are all qualities that quality citizenship education can instill in students. In recent discussions in our HIST490 Senior Inquiry class and other education courses at Augustana College, an issue some people are talking about is whether it is the job of social studies educators to teach civic engagements in the classroom. On one hand, some argue that qualities that make up an active democratic citizen should not be focused on and taught inside the classroom. On the other hand, others say that it is most definitely another responsibility that teachers owe to their students. Overall, there are many different opinions weighing in on this conversation about the role of citizenship in social studies classrooms. Is it part of social sciences educators to incorporate the aspects of what it means to participate in a democratic society or is that left up to other factors, such as learning through families or life experiences? My paper will explore experts' opinions and additional research to help me confirm or reject my own personal view going into the project. My central question is: Can citizenship and how to be a democratic citizen be taught in the school setting?

Urid Pacillas (History Education)

Multiculturalism in History Education

Project Advisor: Dr. Lendol Calder

III-E-4: Old Main 132

I will present on the subject of multiculturalism in social studies, particularly with history textbooks. To help me draw conclusions on this topic, I analyzed journals from parties that support multicultural education and those that oppose it. I will try to answer the questions: "How is multiculturalism being addressed in the social studies classroom? What role do textbooks play in how multiple perspectives are presented? What are some changes that can be made to what is currently the trend across the country?" I will draw conclusions from textbooks, journals and other secondary sources that explain

their views on the topic. Overall, I want to research and present on how multiculturalism has entered the classroom and how it can be improved or even how to expose school districts to strategies of incorporating this approach to education because history should be seen through more than one lens.

SESSION III-F (OLIN 305) 1 – 2:00 P.M.

Dr. Christopher Strunk (Geography)

The Geography of Migrant Incorporation in Eastern Iowa and Western Illinois

III-F-1: Olin 305

The new geography of immigration has transformed communities across the United States and in the Midwest, where immigrants and refugees from Burma, Mexico, Somalia and other countries have settled in small cities and rural towns. Despite a long history of global connections, the most recent wave of migrants presents local communities with a new set of opportunities and challenges. Many newcomers encounter significant barriers to social and economic integration, and small cities and towns in the Midwest tend to lack resources and experience working with diverse populations. Despite these constraints, many cities and towns in the region have developed innovative outreach programs to immigrants and refugees while newcomers have transformed struggling downtowns and neighborhoods by starting businesses, purchasing homes and engaging in forms of creative placemaking. In this presentation, I analyze the dynamic relationship between migrants and several cities in western Illinois and eastern Iowa. I argue that migrant incorporation in these new and re-emerging migrant gateways is shaped by place-based histories of migration, local and state political cultures, and the characteristics of migrants themselves.

Dr. Lee Carkner (Astronomy)

Upgrading the John Deere Planetarium: A New Universe at Augustana

III-F-2: Olin 305

The John Deere Planetarium has been the principal astronomy educational resource for the Quad Cities area for more than 40 years. Each year, approximately 2,500 public school students, Augustana students and members of the general public attend astronomy programs at the planetarium. The facility still relies on much of its original equipment, including the 1969 Spitz A3P projector, which is in need of upgrades. Plans for potential new upgrades including a modern full-sky video projector, sound system, cove lights and seating will be presented. These upgrades would allow us to run new, up-to-date fulldome planetarium shows, display fulldome movies in a wide range of topics and provide a flexible new resource for teaching astronomy classes. Benefits of planetarium upgrades will be discussed, including ways to improve our science outreach to local schools and the community and ways in which our astronomy classes can be made more engaging and immersive.

Dr. Scott Gehler (Biology, Neuroscience)

How Does Neuroscience Inspire Cancer Research?

III-F-3: Olin 305

Tumor metastasis, which accounts for the majority of all cancer deaths, is a multi-step process that requires tumor cells to leave the solid tumor mass and move through the surrounding tissue to other areas of the body. During this multi-step process, cancer cells encounter numerous biological molecules in their surroundings that alter how the tumor cells grab onto their surroundings for traction. These changes in cell attachments are essential for cell motility and metastasis. Tumor metastasis is commonly studied in vitro using immortalized carcinoma cells grown in a petri dish. Using this cell culture model system, my lab studies the effects of various biological molecules on breast cancer cell behaviors, such as cell motility and adhesion. One molecule that I am interested in is semaphorin 3A. Semaphorin 3A was discovered as having an important role in the wiring of the nervous system. However, my lab has shown that semaphorin 3A can promote AND inhibit breast cancer cell motility depending on the context of the surroundings. I will discuss the implications of these findings in both cancer and neuroscience research.

**SESSION III-H (LIBRARY- 2ND FLOOR NORTH)
1 – 2 P.M.**

Mark Sieber, Emma Levich, Amanda Hassler, Caitlin Thom, Abigail Mehnert

Presentations by The Center for the Study of Judaism and Jewish Culture’s Recipients of the 2015 Geifman “Responses to the Holocaust” Prize

III-H-1: LIBRARY-2ND FLOOR, NORTH

Readings, artwork and a music composition, including Mark Sieber, The Art of Censorship; Emma Levich, The Butterfly-A Flight for Hope; Caitin Thom, Wagner Contra Mundum (Wagner versus the World); Abigail Mehnert, Auschwitz.

**FEATURED PRESENTATION IV (OLIN AUDITORIUM)
2:15 – 3:15 P.M.**



Dr. John Delaney (Accounting and Auditing), Jeff Coussens (Theatre Arts)

The Frequent Flyer Fraudster – A Teaching Case

IV-Featured Presentation: Olin Auditorium

This case, based on a real fraud, engages students in a fraud investigation learning activity with a focus on interrogation. Students analyze an interrogation, identify and discuss verbal and nonverbal cues to deception, discuss legal ramifications of conducting fraud examinations, and develop recommendations to improve internal controls. The intended audience is a fraud examination course.



SESSION IV-A (HANSON 102) 2:15 – 3:15 P.M.

Rebecca Post, Dr. Brian Katz (Mathematics)

An Analysis of Sociomathematical Norms of Proof Schemes

Project Advisor: Dr. Brian Katz

IV-A-1: Hanson 102

We report on a case study aimed at researching the social interactions of a classroom focusing on the certainty of mathematical claims and justifications. Blending Harel and Sowder’s (1998) concept of “proof schemes” with Yackel and Cobb’s (1996) “sociomathematical norms,” we aim to expand on Fukawa-Connelly’s (2012) research on sociomathematical norms of proof presentations. Preliminary analysis of classroom interaction and student interview transcripts from a proof-based, axiomatic geometry course suggests the presence of sociomathematical norms related to argumentation that lie outside of proof validation that facilitate renegotiating proof schemes.

Paul Landahl (Mathematics)

Exploring Geometries and Their Basic Assumptions

Project Advisors: Dr. Jon Clauss, Dr. Brian Katz

IV-A-2: Hanson 102

Inspired by the ideas of the shape of space presented in Brian Greene’s *Elegant Universe*, this talk will use mathematical structure to present possible different geometries found in the universe. The goal is to give the audience an idea of what these different geometries look like and how they feel, mathematically. As mathematicians, to explore and logically understand shapes, we use axioms- fundamental assumptions taken to be true. When these axioms and assumptions change, we sometimes get strange and unexpected results. Familiar concepts, like distance, can have enchanting behaviors beyond our preconceived notions.

Hussam Ibrahim (Mathematics)

On the Sum of the Reciprocals of Squares

Project Advisor: Dr. Tom Bengtson

IV-A-3: Hanson 102

We will show how the series that is the sum of the reciprocals of squares arises in the study of Fourier Series. We will discuss the convergence and the rate of convergence of this series. This result arose during exploration using the mathematical software Sage. We will indicate some directions for future research.

SESSION IV-C (HANSON 305) 2:15 – 3:15 P.M.

Dr. Margaret France, Suzy Silberschmidt, Kavita Deodhar, Helen Offerman, Emma Smith, Elizabeth O’Hara (English)

Jane Austen and Stuff

IV-C-1: Hanson 305

This is a series of presentations bringing together Jane Austen and the stuff of our everyday lives, be it pop culture or tasty snacks. Featured papers include: Eating Jane Austen’s Brains by Kavita Deodhar, Parks and Prejudice by Elizabeth O’Hara Vlogging Lizzie: The Lizzie Bennet Diaries, Jane Austen on Twitter by Suzy Silberschmidt and Emma Smith, Austen’s Edibles by Helen Offerman, and The Revolution Will Wear Pink Bunny Ears: Bob’s Burgers and Birth Order Theory by Margaret France.

**Abbigail Mehnert, Alaina Hofmann, Courtney English,
Michelle Panter (Liberal Studies)**

Friday Night Whites: Sports, Race, and Categories of Difference

Project Advisor: Dr. Margaret France

IV-C-2: Hanson 305

We will present a series of four papers exploring the way sports works as a crucible to expose cultural attitudes towards the historically underprivileged. Four students in Margaret France's LSFY 103 will present their research: "Don't You Speak English?": Translation in the Huddle by Courtney English; Softball is for Girls by Alaina Hofmann; Concrete Sport, Concrete Goals: Basketball and Urbanization by Michelle Panter; Dope My Genes, Bro!: Gene Doping and the "Level Playing Field" by Abbigail Mehnert.

SESSION IV-D (OLD MAIN 28) 2:15 – 3:15 P.M.

**French Student Panel-II: Lily Ramos, Mathew Weah,
Jennifer Vanderpool**

Lily Ramos (French and Spanish)

Laferriere and Heredia: Nomadic Voyages to the French Academy

Project Advisor: Dr. Chadia Chambers-Samadi

IV-D-1: Old Main 28

Two French Academy immortals, Dany Laferriere and Jose-Maria de Heredia, share parallel journeys beginning in their native Caribbean nations and leading to their rise to international fame. Their common experiences with cultural appropriation and nomadic identity are explored in this study.

Mathew Weah (French, Political Science, Economics)

Ruling the Slaves

Project Advisor: Dr. Chadia Chambers-Samadi

IV-D-2: Old Main 28

This presentation is an examination and analysis of the issue of slavery in the French colonies during the 17th century, including how corrupted the French colonists were to their own law known as the "Black Code"; governing the ruling of slaves. Because of the stereotype, negligence and disobedience of the Black Code, the slaves had no other option but to escape for their freedom.

Jennifer Vanderpool (French, Neuroscience)

Questioning the Concept of Race in Laferriere's Novels: Perspectives from a Neuroscience Student.

Project Advisor: Dr. Chadia Chambers-Samadi

IV-D-3: Old Main 28

Racism, as a social construct, plays an important role in identity. As a Haitian author, Dany Laferriere, explores the different social constructs regarding stereotypes and the effects of racism on identity due to these stereotypes. Neuroscience has also explored racism and the role of identity within the brain, but on a molecular and chemical level. By synthesizing the ideas presented by Dany Laferriere regarding racism and identity with neuroscience research, a better understanding can be had on what is going on in the brain when socially constructed stereotypes are adapted and how humans use the information to react to their environment. This link between literature and science will provide a scientific mechanism for the social behaviors of racism that Dany Laferriere observed.

Rukmini Girish (French, Theatre Arts)

Alienation and the Adaptation of French Canonical Theater

Project Advisor: Dr. Taddy Kalas

IV-D-4: Old Main 28

Alienation, and how to overcome it, is an essential part of any theatre company's mission. How to make the audience identify with the characters? How to make them forget that they are watching actors portray people in a (literally) constructed universe? This problem is exacerbated when the works in question have been performed for centuries. How to transport the audience (or does one need to transport the audience) centuries into the past? How to overcome the barriers of verse/Surrealist/absurd theatre? A study of 25 canonical works of French theatre last summer revealed that the problem of alienation can be solved in a multitude of ways, provided that the actors and production staff remain faithful to the heart of the text. The most faithful production, however, can be ruined by bad acting, while the most adapted production can seem transcendent if a great actor is at work. While these may not seem like groundbreaking observations, the variety of successful and unsuccessful adaptations seemed to suggest that a reminder of the basics is not out of place.

SESSION IV-E (OLD MAIN 132) 2:15 – 3:15 P.M.

Sarah Moore (Religion)

Purity and Power: Debunking the Purity Movement

Project Advisor: Dr. Daniel Morris

IV-E-1: Old Main 132

For centuries, ideas about purity have created a system of control and reinforced gender hierarchies through slut shaming. There is a double standard between men and women. Women are criticized for their sexual behaviors and face tremendous hardship exploring their sexual identities without facing criticism. Navigating and discovering one's sexual identity can be very complicated and difficult; however it is much more difficult for women because women are constantly being monitored and criticized. It is almost impossible in this day and age to find a woman who can tell you that she has never been called a slut or a prude. Society has very strict rules which seem to monitor a woman's sexual behavior. We can see this in the Christian tradition and in purity balls. There are many kinds of Christianity which reflect the aim of controlling purity, specifically Catholicism and Evangelicalism. In this paper, I will first discuss the theory surrounding my topic. I will use these theorists to analyze slut shaming and the purity movement.

Ericka Arias (Religion, Latin American Studies)

The Necessary Removal of an Established Government for the Sake of Justice: Analysis of Leonidas Proaño, an Ecuadorian Liberation Theologian

Project Advisor: Dr. Cyrus Zargar

IV-E-2: Old Main 132

In my religion Senior Inquiry, I examine liberation theology and how it has been applied in Ecuador to argue against established government and for a communal "government." To conduct my research, I personally translated Proaño's speeches from Spanish to English so as to make them accessible to English-speakers and to allow me to refer to his ideologies and beliefs throughout my paper. There have been thinkers, such as Dorothy Day and Shane Claiborne, who have argued against established government; however, Proaño, who served as a bishop from 1954 to 1985, has a unique perspective on this critique of establishment given his experiences with injustice and corruption in South America.

Alexander Gilmore (Psychology)

The Implicit Relationships Between Religious and Nonreligious Supernatural Constructs

Project Advisor: Dr. Matthew Weeks

IV-E-3: Old Main 132

We investigated the implicit cognitive associations between traditional Christian religious concepts and three types of nonreligious supernatural constructs. Our findings so far hint that paranormal constructs and extraordinary lifeforms were implicitly associated with religious constructs, but superstitions were not. These effects are being moderated to a degree by one's religious beliefs and his/her faith in science.

Ebony Allen (Philosophy)

Happiness and Meaning

Project Advisor: Dr. Timothy Bloser

IV-E-4: Old Main-132

My Senior Inquiry focuses on what is happiness and its relation to meaning in life. In defending happiness as a component of meaning, I provide my own conception of happiness and analyze other theories of happiness within philosophy.

SESSION IV-F (OLIN 305) 2:15 – 3:15 P.M.

Dr. Heidi Storl (Philosophy)

Ethics Consultations – Why Bother?

IV-F-1: Olin 305

Ethics consultations in the clinical setting in medicine often get overwhelmed by legal, medical or psycho-social issues. While these issues are often central to a full discussion of ethical dilemmas, it is important to (re-)capture some of the key ethical dimensions of these situations. In this presentation, I will describe and defend a "tool" that helps to place ethical considerations at the center of these consultations.

Dr. Todd Cleveland (History)

Strategic Engagement: The Transnational Case of (E)migrant Footballers from Portugal's African Colonies

IV-F-2: Olin 305

This paper posits the analytical concept of strategic engagement to explicate the success both on and away from the pitch enjoyed by the series of African football players who emigrated from Portugal's empire to the metropole from the late 1940s until the end of the colonial period in 1974/5. Scholarship that considers colonial-era football in Africa has typically highlighted the ways that indigenous practitioners of this European-introduced sport appropriated, contested and even utilized the game as political cover for nationalist activity. This paper argues that these emphases reflect a durable paradigm in African historiography that stresses indigenous agency and resistance while concomitantly seeking to dispel indigenous passivity or victimization at the hands of European overlords. Yet, in scholars' zeal to draw attention to these features of colonial social and political relations through the prism of sports and, in particular, football, they have neglected a wide range of activities in which Africans engaged and cooperated across a range of social and racial divides in order to achieve personal and familial objectives. By examining the transnational histories of African players from Portugal's colonies to the metropole, it is clear that these myriad forms of engagement and cooperation were vital to their prodigious success

and are, thus, arguably much more analytically salient than were less frequent and less profound instances of indigenous resistance and contestation.

Dr. Marco Cabrera Geserick (Latin American History, Nationalism)

Failing on Inventing Traditions: Santa Rosa. A Research Presentation

IV-F-3: Olin 305

This presentation is a result of a Faculty Research Award granted to Dr. Cabrera Geserick for research in Costa Rica on the topic of the Filibuster War and its implications on the creation of a national identity in Central America. Specifically, it looks into the recovery of a historical event of the XIX century for political purposes in the middle of the XX century. The result of the research proves that the centenary celebrations of the 1856 battle of Santa Rosa had a strong attempt to use the past for political purposes. While this is a common feature in modern history, this is a story of how political manipulation of national identity backfired against the government. The presentation includes a background of how research was performed, methodology used, and results.

Dr. Jane Simonsen (History)

Suits to Skin, Skin to Bones: Agency and Indigeneity in Portraits of Black Hawk

IV-F-4: Olin 305

Many residents of the Quad Cities are familiar with the iconic figure of Black Hawk used by local institutions, but few know the history behind the creation of this portrait and at least a dozen others made between 1833 and 1837. Literary scholars have long regarded Black Hawk's autobiography as a negotiation between Black Hawk, his translator and his scribe, but no one has yet turned critical attention to his portraits. Portraits of Black Hawk are generally regarded as artifacts of his defeat and incarceration, while their subject remains passive at best. But the many portraits of Black Hawk provide a case study for investigating indigenous self-representation. They muddy attempts to assign a single, coherent meaning to Black Hawk's image, and his agency in manipulating codes of self-representation becomes more visible.

SPECIAL PROJECTS

Jessica Nodulman, Hanna Anderson, Mariaelisa Claros, Karlie Everett, Brian Fanning, Brenna German, Selena Gonzalez, Christina Gosiewski, Mecca Joseph, Korrie Lamarre, Bailey McChesney, Melanie Nicholls, Eleanor Nolan, Kimberly Roark, Tayler Roebke, Ryan Silvola, Karly Zucker (Communication Studies)

*Sexual Assault Prevention and Education for the Augustana Campus:
A Student Designed Health Communication Campaign*

9:30 a.m. – 4:30 p.m.: 4th Floor Hallway, Center for Student Life

Students in COMM 410-Health Communication Campaigns will present the sexual assault prevention and education campaign materials they designed for the Augustana campus. Students will discuss the results of their focus group research, present their materials and plans, and solicit feedback and evaluation from the college community about their campaign.

Sarah Berndt, Colleen Cooper, Claire Hammer, Victoria Karnes, Audrey Moore, Ashley Newell, Dr. Claire Kovacs (Augustana Teaching Museum of Art)

Art Speaks: Sister Corita Kent in Founders

Project Advisor: Dr. Claire Kovacs

Self-guided tour: Academic Affairs Hallway, Founders Hall, First Floor

Kicking off the Augustana Teaching Museum of Art's mission to engender more engagement across the campus with its collections, Dr. Claire Kovacs worked with members of the Augustana Art History Club to curate this exhibition of a selection of works from Augustana's collections by Sister Corita Kent, an important Iowa-born Pop artist who worked in Los Angeles in the 1960s. Her work engages with issues of faith, social justice and education, and thus is an adept addition to Founders Hall. The students and Kovacs worked on didactic essays and an artistic interpretation to better situate for the viewer Kent's contributions to her cultural moment and the art historical canon. Come check out the fruits of their labor in Founders.

Caleb Arnold-Ivey, Courtney Camlin, Marcela Fitzpatrick, Ethan Harrod, Ruby Loera, Alex Miller, Sara Mitchell, Cammie Ruhl, Alicia Strtak, Ayanna Wade, Dr. Shara Stough, Dr. Scott Gehler, Dr. Rupa Gordon, Dr. Ian Harrington, (Neuroscience Education)

Elementary School Neuroscience Outreach ("Longfellow Neurd Fest")

(NOT OPEN TO PUBLIC)

In this inaugural offering of our outreach event, Neurd Fest, Augustana faculty and student volunteers will share some of what we know about the brain with two classes of second graders from Longfellow Elementary. Through a series of interactive exhibits, these Longfellow students will learn about the functions of different parts of the brain, how our brains (mis)interpret sensory information, how brain cells communicate, the similarities and differences between brains of different animals and, most importantly, brain safety! The faculty organizers hope that this will become an annual event and will provide an opportunity for our majors to share their knowledge and passion for neuroscience with the broader community, particularly younger children.

SENIOR ART SHOW GALLERY TALKS, SENIOR ART HISTORY EXHIBIT AND ARTIST PRESENTATIONS

Augustana Teaching Museum of Art (Centennial Hall)

10:15-11:10 a.m.

Senior Art Show Gallery Talks (Group 1: Bradley Anderson, Sara Fraterrigo, Kevin Hodgman, Carmen Jones, Audrey Moore)

Augustana Teaching Museum of Art (Centennial Hall)

11:20 a.m.-12:05 p.m.

Senior Art Show Gallery Talks (Group 1: Meridith Hays, Jesse Nagelberg, Nikki Radloff, Shelbi Ummel)

Augustana Teaching Museum of Art, Lower Gallery (Centennial Hall)

12:15-12:45 p.m.

Senior Art History Exhibition (Dr. Catherine Goebel, Sarah Berndt, Colleen Cooper, Audrey Moore)

Larson Hall (Bergendoff)

1-2 p.m.

Senior Artist Presentations (Group 2: Melissa Chiodo, Sebastien Chomereau-Lamotte, Elizabeth DeMay, Sarah Frachey, Kevin Gordy)

Larson Hall (Bergendoff)

2:15-3:20 p.m.

Senior Artist Presentations (Group 2: Kelsey Kammerzelt, Stephanie Loconsole, Jenna Teson, Alison Wagner, Nicole M. Wilcek, Kayla Pilar Fernandez)

SENIOR ART SHOW: ARTISTS' STATEMENTS-I

Group 1: 10:15 a.m. – 12:05 p.m.

Augustana Teaching Museum of Art (Centennial Hall)

These students' works will be displayed in the Augustana Teaching Museum of Art April 24-May 6,

Bradley Anderson (Graphic Design)

Project advisor: Peter Xiao

In Between

Being from Wisconsin, the Midwest is a place that is very near and dear to my heart. Humid summers and long, harsh winters make the Midwest a special place that is not for the faint of heart. Winters aside, the cultural melting pot that many of us call home has countless splendors to offer. It has been my goal over the past year, through photography, to capture interesting moments from my experiences as a Midwesterner. I chose photography as my medium because it has the ability to capture reality. In a fraction of a second, a piece of time has the potential to live forever. Photographs can also form relationships between things that one may not see or recognize, and it is that reason why I believe this medium to be so powerful. I wanted to create my Senior Inquiry about the Midwest because it is my home and one of the most unique places in the nation. Through its many cultures and balance between rural and urban areas, I wanted to capture the special feel of the Midwest and all that it has to offer.

Sara Fraterrigo (Graphic Design)

Project advisor: Peter Xiao

Challenge Reality

A sense of what is possible to a human being seems to diminish with age, not only physically, but mentally. A young child views the world uninfluenced by the limitations of experience. Something does not have to physically be possible to exist in an art piece. Winged animals with glow-in-the-dark fur are not outside the realm of possibilities. My inner child yearns to join these fantasy worlds and move from the ordinary life to something extraordinary. There is something satisfying in taking a few moments to become absorbed in a fantasy piece of art, or a few hours to sit through an animated movie. This experience rejects the mundane, if only for a brief window in time, to inspire our inner child to witness something incredible.

I painted these mythical creatures in order to escape my own ordinary existence, and with the hope to help others to do the same. These mythical creatures relate to each other only in style. I focus on the location of the light source to bring out the drama of the scene. The acrylic medium gives me variants on my blue theme and allows me to add a few touches noticeable to those who witness the painting in the darkness. Each work entices viewers into its own world enough to create boundless possibilities. Become a part of my fantasy world if only for a few moments. Let the impossible become your new reality.

Kevin Hodgman (Graphic Design)

Project Advisor: Peter Xiao

Dream On

My collection of original type treatments motivate and encourage the viewer to remember to always follow his or her dreams and forget others' opinions who lack inspiration or encouragement. A wide variety of media is used to fulfill fresh, innovative ideas and processes that go far beyond that of just text. I found large amounts of inspiration in type artists James Lewis and Amadeus Malmén. Do something that makes you happy and remember to always dream on.

Carmen Jones (Studio Art)

Project Advisor: Peter Xiao

Natural Hair

My focus is celebrating African American women's natural hair texture. I want to promote black beauty in a way where women are proud to wear their hair in its authentic form. Some African American women often hide behind wearing their real hair by often being persuaded by media in social context. This means that most styles for women of color are often influenced by European hairstyles. For example, many African American women would wear their hair straightened or wear wigs and extensions to fit into the social constructs of how they should look. I think women, especially African American women, should be proud of their hair texture because it represents not only their unique beauty but also their culture. Women should not be afraid or feel self-conscious of being themselves.

Audrey Moore (Graphic Design, Art History)

Project Advisor: Peter Xiao

Date a Girl Who. Date a Girl What: Illustrating a Frustrated Voice

The role that women play in society has been determined through years of a domineering white, patriarchal voice. It was almost a year ago when a friend and I came across Alida Nugent's blog The Frenemy. One particular blog post entitled "Date A Girl" grabbed our attention. "Date A Girl" could be described as a feminist prose in

some sorts. Her writing read as a vexed train of thought as she scrutinizes caricatures of women. There is a lot of humor and truth to be found in Nugent's writing as she exposes these absurd characteristics women need to have in order to be deemed dateable.

Nugent's "Date A Girl Who" has been the inspiration for the illustrations in my book. I wanted them to reflect the sense of urgency and genuineness as Nugent's writing. Some of the illustrations are quick and simple to reflect some of the more frank parts of her writing. Others are meant to show the absurdity that ensues from a rapid, frustrated train of thought in search of truth.

Conceptual artist Jenny Holzer and her textwork with truisms has also served much inspiration for my project along with the drawing and design styles of Paula Scher and Colleen Louise Barry. I believe that by making visuals inspired by Nugent's and other feminist writers can create a more accessible platform for feminism, as it is a topic that many are not eager to talk about.

Meridith Hays (Graphic Design)

Project Advisor: Peter Xiao

Script

Typefaces are ubiquitous in our contemporary lives, as most of the words we read every day on television, in e-mails and, of course, in books, have been typed. As a society, we are surrounded by a continuous stream of information that comes to us in many different fonts. New typefaces are constantly being designed, and as over one-hundred thousand already exist, it is important for me to set my typeface apart from the crowd in some way. I did this by referencing the first instances of movable type, which were made to look like handwriting did at the time.

Typefaces can be categorized in various ways, the most common of which are as serif, sans-serif or sans, and script typefaces. Serif typefaces tend to look traditional (like Times Roman), and have tic-marks at the end of each stroke. Script typefaces are made to look like calligraphy or handwriting and can take many different forms (cursive or print, for example).

My typeface, TYPEFACE NAME, is a mix of serif and script. My goal was to design a serif typeface based on my own handwritten letterforms. The serifs are placed where I naturally lift my pen when forming letters, and the weight of the strokes is dependent on whether my pen moves upward or downward to create them.

Jesse Nagelberg (Graphic Design)

Project Advisor: Peter Xiao

Exoplanets

Is there life beyond planet Earth? The series before you explores personal interpretation of exoplanets, or worlds beyond our solar system. It is an attempt to create a depiction of these untapped new worlds with traits that significantly differ from life on planet earth. The fascination and questions humans have of sustainable life beyond our planet is the fuel to these pieces. As an artist it is my hope to both intrigue and inspire others to explore thoughts on life beyond planet Earth.

Nikki Radloff (Graphic Design and English)

Project Advisor: Peter Xiao

Inside Out

camouflage, inside out, interactive, brain to hand

People try to fit into today's commercialized society. While under the pressure of staying up-to-date with socially acceptable trends, people unknowingly reach for conformity—building a distance between their outside appearance and their person inside.

I mean to take the person inside and bring it outwards—an exploration of human nature by removing the superficial surface that we create around ourselves with a collaborative experience. I did not want the project to become solitary, but as the project is about people, it should depend on people to inform my work. These experiences will give responses and insights into the student body at Augustana and will therefore inform my design work and become the data for it.

My thesis of *Inside Out* manifests in the form of a design code included within a yearlong process book. The design code keeps with the idea of anonymity by hiding the student's confessions within a complex system of lines and shapes [alphabet]. Perhaps unknown to them, many of the students shared common themes: the idea of responsibilities, cheating, self-image and independence. In order to decipher the code, one must start in the center and read out—Inside Out. By solving the code, one can create a connection with these shared themes.

Shelbi Ummel (Studio Art, Multimedia Journalism and Mass Communication)

Project Advisor: Peter Xiao

A Questionable Experience

I have been in a few psychology classes throughout my career at Augustana and have become fascinated with how the mind works, and decided to pursue my love of psychology with my love of art. Therefore, I am mixing the two together for an art show that is also psychological. I focused on the term or idea of sensory de-realization, which is, by definition, "an alteration or experience of the eternal world so that it seems unreal"—in other words, feeling like you are somewhere else based on your real-world surroundings. I chose to intertwine that experience with my love of drawing portraits.

I intend on giving you a sensory de-realization experience of feeling like you are walking on the red carpet with many other celebrities. The portraits featured are among the famous and well known celebrities of our time. The idea of the photos being drawn also adds to the "trickery" of the whole experience. Like a wax house, I want to make you feel like you are literally walking with the celebrities, although, when you get up close, they are fake.

Every aspect of this show is an experience. From the coloring, to the height of the portraits, to the flashing; it all adds to the realization of you walking on the red carpet. As you walk from celebrity to celebrity, dazzle yourself with the idea that you are walking among them.

SENIOR ART HISTORY EXHIBITION

Sarah Berndt, Maggie Cooper, Audrey Moore, Dr. Catherine Carter Goebel (Art History)

Framing Justice through the History of Art: Liberal Arts through the AGES

Project Advisor: Dr. Catherine Carter Goebel

12:15 - 12:45 p.m.: Augustana Teaching Museum of Art – Permanent Collection Gallery (exhibition open through May 24)

Senior art history majors Sarah Berndt, Maggie Cooper and Audrey Moore will present their senior art history exhibition on social justice, co-curated with art history professor, Dr. Catherine Carter Goebel, Paul A. Anderson Chair in the Arts and co-founder/inaugural keynote speaker for Celebration of Learning. Works are drawn primarily from the faculty/student publication, *Liberal Arts through the AGES: Interdisciplinary Art Historical Inquiry*, now digitized and on display.

Students will lead an interactive session discussing the scholarly and creative steps involved in curating an aesthetically effective and intellectually engaging art museum exhibition, in this case with relevant original works of art dating from the Middle Ages through contemporary times. Several works are famous, and some are exhibited here for the first time. All works of art include didactic panels written by faculty and students across disciplines.

The session will focus on many facets of social justice, including race, class, gender, etc. Presenters also will engage participants to share what they visually read, adding layers of meaning and contexts for the exhibition as a whole and key pieces in particular.

SENIOR ART SHOW: ARTISTS' STATEMENTS-II

Group 2: 1 - 3:20 p.m.

Larson Hall (Bergendoff)

These students' works will be displayed in the Augustana Teaching Museum of Art May 14-24

Melissa Chiodo (Studio Art – Photography Emphasis)

Project Advisor: Peter Xiao

Personal Space

Next time you are in your bedroom, look around. Look at the things you have hanging on your walls, arranged on your dresser or desk, stacked on your bookshelf. Consider a total stranger walking into your room; they could probably get a fairly good sense of who you are (or at the very least, the things that are important to you) based on what they saw there, right?

The idea of personal spaces embodying the identities of their inhabitants fascinates me. I've spent the last year or so working with and getting to know a woman named Sherri. She lives in a house with a few other people, and over time I've photographed various places in the house, including her bedroom. Considering the majority of the house is shared, her bedroom is particularly substantial in its very "Sherri" nuances. However, as I consider my project less of a case study on one woman and more of an exploration of the identifying quirks [and the stories they are capable of weaving] found in any personal space, I have included photographs of some of the other rooms in the house along with the photographs of Sherri's room.

The text accompanying some of the photographs in my book serves to demonstrate the countless stories hiding behind seemingly innocuous knick-knacks. Next time you are in your bedroom, look around and consider: what stories is it capable of telling?

Sebastien Chomereau-Lamotte (Studio Art)

Project Advisor: Peter Xiao

Gestures In Clay

The approach to create gestures in clay always requires capturing a sense of the figure with a series of cylinders. These cylinders provide the figure with a quick impression of stylized features that can easily become abstracted from construction. The stylized features also can be created with hand construction to apply a sense of rigidity to the figure. These include hand-built faces and wheelthrown arms, which are applied once the torso is structurally sound, large curves and flowing arms, along with a puzzled or undefined look on the faces. I use a stylized technique to have an efficient work ethic and to quickly capture a sense of a figure based on similar drawing techniques. Creating figures is an outlet from observing people and my fascination of the human form. I use cylinders as a primary structure, due to the shaping versatility when forming limbs and features on stylized figures.

Elizabeth DeMay (Studio Art)

Project Advisor: Peter Xiao

Holistic Reflection on Universal Health

In ancient Indian practices, there began a belief that energy points, known as chakras, could be found running up the spine of every individual, and which relate to the overall well-being of that person. It is believed that there are seven main chakra centers located from the base of the spine to the crown of the head. Every organ, gland and body system is connected to a chakra, which governs the health of those organs. When the seven chakras are working in alliance with each other, then all the organs within the body will be at their optimum level of vitality, harmony and balance. By building a system that is preventative and that incorporates all conditions of the body, instead of just focusing on one region that is injured, one can experience all-over wellness rather than cyclical illness and recovery.

Sarah Frachey (Graphic Design)

Project Advisor: Peter Xiao

Streetlight Series

When the sun goes down and our world is lit only by what sunlight is reflected off the moon, we turn on lamps and other sources of artificial light to compensate for the sun's absence. Far from dependent on sunlight, we are accustomed to the power of being able to see through the dark. Artificial light is an everyday convenience and such a normal part of life that it usually is disregarded. It can dispel the darkness, revealing what was initially unknown, or it can trick us into seeing what really isn't there.

In my series of digitally painted landscapes, I'd like to draw attention to how street lamps and, sometimes, traffic lights illuminate streets and their surroundings in the evening and nighttime hours. Streets transform into reflective surfaces, mirroring the light's glow, while the surrounding buildings and vegetation recede into darkness. I am interested in how these sources of light, in their many colors and variations, can transform an ordinary scene into something unexpectedly beautiful.

Kevin Gordy (Graphic Design)

Project Advisor: Peter Xiao

Labels

My series of designs focus primarily on stereotypes, censorship and political correctness. For my work I took subject matter that is as prominent now as it ever has been, giving me the opportunity to create pieces that take a firm stance against stereotypes while at the same time challenging the idea of censorship and political correctness.

For the posters I decided to use an assortment of material such as words, labels, pictures and colors. From there I combined these different elements to create one unified image with a new meaning and message. While all of these may not be exactly the same, it is their style and the way in which they were constructed that make these conceptually layered pieces fit together.

Kelsey Kammerzelt (Graphic Design and Communication Studies)

Project Advisor: Peter Xiao

A

Good design is simple, and good design uses as little design as possible. In addition to this philosophy, my interest in editorial design is ultimately what influenced my decision to create a Senior Inquiry. My project places the buildings of Augustana's campus right on the pages of a fictional magazine publication. The basic architectural structures of the buildings are drawn on the pages, with words either above or below which convey a student perspective of each structure. To give the project more dimension, I chose to incorporate elements of thread, fabric and beads. Although I am a graphic designer who is expected to love everything about the digital world—the photographs, the programs, the online stratosphere and the two-dimensionality—I believe that through mixed media I can create a powerful message that crosses into the realm of three-dimensionality in a subtle way.

Stephanie Loconsole (Studio Art and Communication Studies)

Project Advisor: Peter Xiao

Exploration of Clay: Tile Design

There are many different definitions of what art is. Art is creating something original, art is in the eye of the beholder, and art is exploring different media to create something new and interesting. These are my favorite ways to define art and I made sure to keep these definitions in mind when creating my Senior Inquiry in tile design. I chose to create ceramic tiles with Raku clay. This allowed me to use my favorite medium while trying something new. When making the tiles I experimented with color, texture, line and shape. I also used a variety of tools to remove clay and objects to press into the clay to make create texture and dimension. I have learned that for ceramic art to have artistic appeal and beauty it needs to have different elements of design, but not too much that will overpower it. When making my tiles I did not work off of a design; rather, I reacted to the clay, making lines, shapes, patterns, etc., as I go. After making one tile I typically made one or more similar to it to have a set. I also enjoyed lining up the tiles based on their patterns to make them flow together. I mounted the tiles along with smaller mosaic tiles onto a board and grouted them to create compositions. The variety of tiles helped break up the monotony of the pieces and create more movement and visual strength, rather than just having the same-size tiles by themselves.

Jenna Teson (Graphic Design)

Project Advisor: Peter Xiao

Mentality Through Time

Design has a way of interpreting things we don't fully comprehend. Occasionally, more than words need to be seen in order to understand. The combination of type, space and image present this visual communication that helps people see the world. Over time, different styles of design have emerged and have shown us these various forms. Through each decade we learn new techniques and create new ideas to present to the viewer.

Sports have always been a passion of mine. The way the mind and body work together to concentrate on certain situations is an extraordinary thing. Mentality has a lot to do with that. The way you think determines how you will act. You are the deciding factor. Your body will do whatever your mind tells it. Only then, will you get results. No matter where you end, your mind is always where you start.

In my project I display, through a series of posters, different instances that represent how mentality is translated with the certain time period in which it is displayed. Each time period has its unique themes that separate it from the others. The posters represent the curves of the 1880s, the use of negative space in the 1920s, the playful shapes of the 1950s, the geometric patterns of the 1980s, and simplicity in modern day design. Thirty years separate each of my designs and I aim to express these distinctive elements. By doing that, I'm communicating the ways mentality would be portrayed in graphics during those years. My objective for creating these mentality posters is to generate pieces of art that remind people of remembering the old, while still designing with the new.

Alison Wagner (Studio Art)

Project Advisor: Peter Xiao

An Experience of a Lifetime

This past summer I had a life-changing experience studying and working abroad for almost two months. While traveling I had the chance to explore different parts of England, France and Ireland. All of the beautiful places I have seen on my journey have really inspired my artwork for the Senior Inquiry art show. By focusing on what I have learned on my six-and-a-half-week internship with the famous Jane McAdam Freud, she is and will continue to be my main influence for many years to come.

By learning countless new styles and techniques through this incredible excursion, I have chosen to create these staggering works of art because of its tedious challenge. Before starting the process of weaving each individual wire through every checkerboard box, it takes great amounts of focus to receive the proper measurements for a balanced, drawn template. By creating this template, it helps me to see where the wire should correctly lay on the backdrop of the chicken wire. Following the ongoing routine of getting poked and shedding blood, the picture eventually starts coming into place and all of my hard work is worth the time spent.

While looking at the final products of my artwork, I'd like each viewer to examine the individual strands of wire and follow how it was weaved to create the entire picture. By doing this, I am hoping the audience will be able to focus on details not only within my images, but the rest of the students' artwork as well. It is truly amazing to see the amount of effort and talent each artist puts into his or her work to create something magnificent.

Nicole M. Wilcek (Graphic Design)

Project Advisor: Peter Xiao

Electric Stove: Mending the Connection

My time as a design student put me in the position to realize art and food are my passions. Having always been a foodie of sorts, I chose to combine these two worlds and address an issue that most college students face.

Colleges are notoriously credited with being a black hole for any sense of culinary expression. Students often turn to instant meals, void of nutrition but rich with expediency.

With the creation of Electric Stove, I aim to mend the connection between the college lifestyle and the satisfaction of a home cooked meal.

By recognizing a commonality between most college kitchens, the electric stove, my solution is to provide a kit that contains the components of a home-cooked meal for students to prepare themselves.

Kayla Pilar Fernandez (Art and Geography)

Project Advisor: Peter Xiao

World Wide Folklore

Before the world became obsessed with physical art, people were able to share a different but very prominent form of expression, oral lore. Storytelling is something that has been done throughout the world, in every culture, throughout time. As an artist and scientist I became fascinated with this form of art.

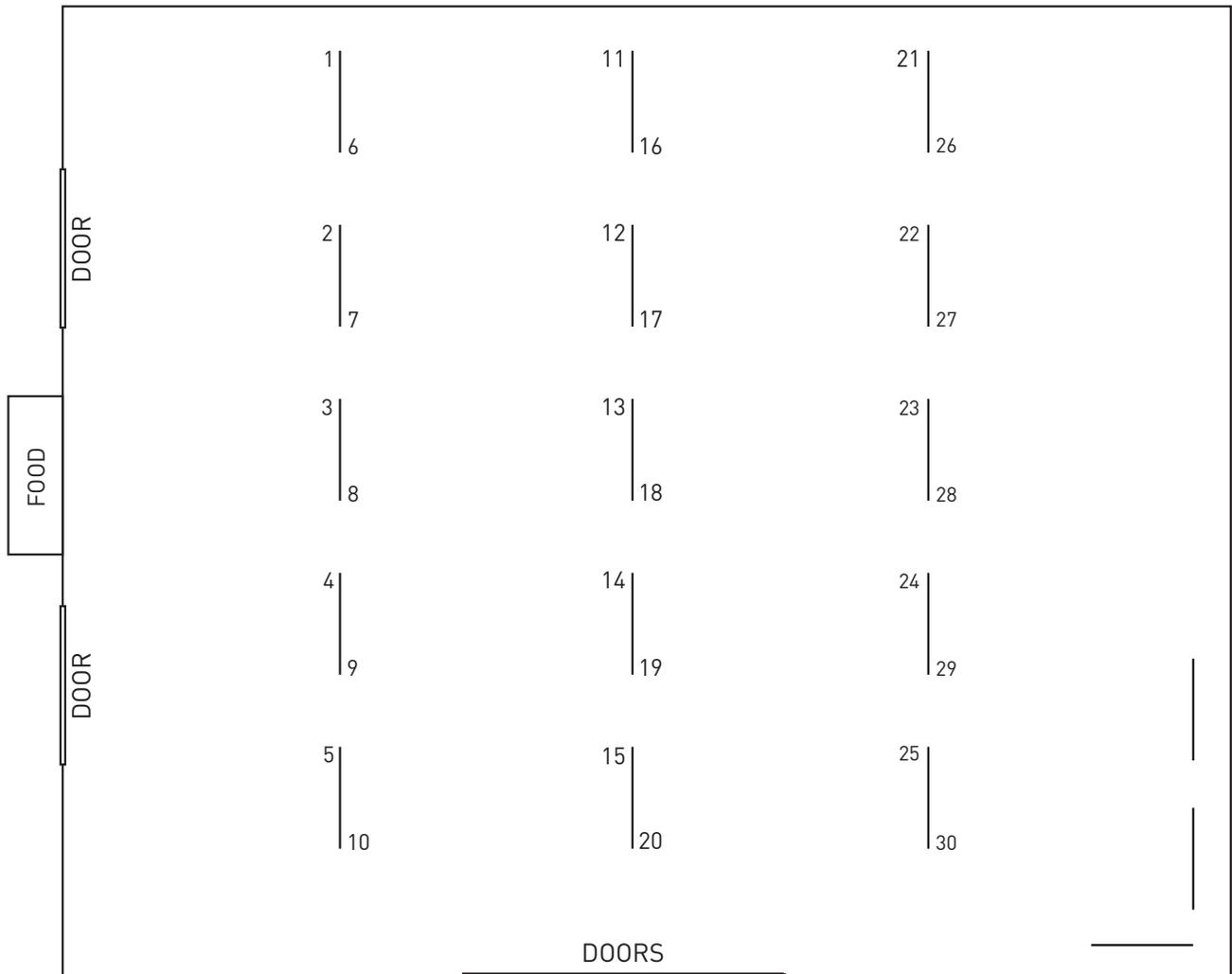
Today, many people see storytelling as having only one purpose, entertainment. In reality, stories that are told and retold, especially traditional lore, contain important information. Not only were some of these stories considered entertaining, but also educational. They display not only creativity but also a perspective foreign from our own, showing cultural perspectives of the world as well as community sense of place.

My goals for this book are multifaceted, just as the stories are intended to be. The illustrations I created are meant to coincide with the three folktales I collected, all from separate coastal regions around the world. I chose to format my collection into a book similar to an illustrated children's storybook. I chose stories that were simple and entertaining enough that anybody would want to read them. At the same time, I wanted them to be exotic and something the reader would be able to delve deeper into. Truly traditional lore could educate as well as instill life lessons of a culture into the listener.

I believe my combination of folktales paired with vivid illustrations will evoke these deeper thoughts into my readers and open their minds to what a fairytale can really be.

POSTER SESSION II | 3:15 - 4:30 p.m.

Poster Presentation Layout
Center for Student Life, Gävle Room



- | | |
|--|---|
| 1 Brandon Metoyer | 17 Fallon Meyer |
| 2 Stephanie Pedersen | 18 Elizabeth Cowan, Diana Schultz, Jake Torres |
| 3 Grant Bell | 19 Morgan Conley, Lisa Pohlman-Zordan, Colten Keenan |
| 4 Evan Blodgett | 20 Daniel Herrera, Steve Lavelle, Marckus Simmons |
| 5 Joseph Romero | 22 Mayu Oya, Brooke Heibel |
| 6 Cody Johnson | 23 Megan Steinhoff, Elyzia Powers, Mayu Oya, Katrina Friedrich, Brooke Heibel |
| 7 Brian Trausch | 24 Katrina Friedrich, Daniel Andon, Mayu Oya, Elyzia Powers |
| 8 Ryan Plath | 25 Ruby Loera |
| 9 Ryan Urbanski | 26 Brittany Burk |
| 10 William Lardner | 27 Marcela Fitzpatrick, Megan Petersohn |
| 11 Kevin Gosiewski | 28 Alex Miller |
| 12 Luke Lampo | 29 Catherine Dinklenburg |
| 13 Jose Rosalez, Michael Ems, Breanne Kelley | |
| 14 Alyssa Szymanski, Laura Becker, Yvonne Skrzypczak | |
| 15 Tim Michaels | |

POSTER SESSION II

GÄVLE ROOM, CENTER FOR STUDENT LIFE

3:15 - 4:30 P.M.

Hors d'oeuvres and beverages will be served during the afternoon poster session.

Brandon Metoyer (Geology)

Variety and Identification of Theropod Teeth from the Early Jurassic Hanson Formation of the Transantarctic Mountains

Project Advisor: Dr. William Hammer

Poster Session 2 #1: Gävle Room, Center for Student Life

Theropod teeth are commonly found in the fossil record because teeth are the densest type of bone, and the relatively greater density gives the teeth a better chance of surviving the erosional process. However, despite specimen abundance, theropod dentition research is limited because teeth do not possess enough information to identify the species of the dinosaur.

Here I describe the qualitative and quantitative dimensions of six isolated theropod teeth (A-F) from the Jurassic Hanson Formation of the Transantarctic Mountains. They were found in the same bonebed as *Cryolophosaurus ellioti* (*Dinosauria: Theropoda*; Hammer, 1994) and the teeth originally were presumed to belong to this early theropod. Each tooth was anatomically measured and the dimensions recorded were entered into PAST®. The morphometrics (principal component analysis) of the six unidentified specimens were layered on top of other theropod dentition data; therefore a comparison could be made. Next, the six specimens were embedded in a clear epoxy and cut in the transverse and longitudinal direction to expose the enamel of the tooth. Enamel of each tooth was photographed using a Scanning Electron Microscope at The Field Museum of Natural History in Chicago. Enamel analysis can definitively show that there are separate species within the unknown specimens if there are different growth patterns present. Combining morphometric analysis and the patterns of enamel structure can advance theropod dentition research, and utilize the plethora of specimens available.

Stephanie Pedersen (Geology)

Osteohistology of a New Sauropodomorph Dinosaur from Antarctica

Project Advisor: Dr. William Hammer

Poster Session 2 #2: Gävle Room, Center for Student Life

The purpose of this study is to use the microstructure of bone to look at the growth of a small basal sauropodomorph dinosaur from the Early Jurassic Hanson Formation of Antarctica. This specimen is very small (femur length= 235.5mm), but bone histology can determine if it's a juvenile, or if it represents a mature specimen of a small-bodied species. Cross sections of the femur, fibula, two ribs (one longitudinal study), and two gastralia were prepared through standard paleohistological techniques at The Field Museum of Natural History in Chicago. These sections displayed highly vascularized fibrolamellar tissue corresponding to rapid growth, common in most sauropodomorphs. Primary osteons are present with few secondary osteons indicative of remodeling present. No growth marks or annuli, such as lines of arrested growth (LAGs), were observed in the limb bones, but 1-2 were present asymmetrically in the gastralia and ribs. Since this specimen displayed rapid growth with little evidence of LAGs, histology suggests this animal died at an early ontogenetic stage. Histology can be used to determine if high latitudes had any effect on the growth of this dinosaur by comparing it to histological studies of related species living in lower latitudes. In this study, comparisons have been made to *Mussaurus patagonicus*, *Plateosaurus engelhardti*, and *Massospondylus carinatus*.

Grant Bell (Geology)

Textural Analysis of Halite under Accelerated Growth: A Proxy for Evaporite Formation

Project Advisor: Dr. Michael Wolf

Poster Session 2 #3: Gävle Room, Center for Student Life

Textural analysis of crystals and rocks is a useful means of identifying their origins. A closer look at nucleation in fast-growing crystals as a proxy for real-world geologic processes should be able to better explain the textures of various crystal beds and evaporite deposits. Attempts at understanding a relationship between temperature, substrate, and nucleation with final crystal growth have been made by examining data collected from lab experiments. Crystallization variables including solution composition and concentration, as well as temperature and duration of precipitation, are being investigated. More than 20 experiments have been performed using a solution of sodium chloride and deionized water in plastic petri dishes. In these experiments the concentration of sodium chloride has been varied, as has the total volume of solution used. Heat was evenly applied to the tests via a contained water-bath apparatus set on a ceramic hot plate in order to accelerate crystal nucleation and growth. Various concentrations of sodium chloride in solutions have yielded results that may demonstrate a relationship between original nucleation sites and the texture of the salt crystals.

At this time, lab experiments suggest that at greater temperatures, ranging from 45-95° C, nucleation sites are more evenly distributed across the base of the petri dishes. A greater concentration of sodium chloride also seems to yield an even distribution of nucleation sites, although there are fewer sites present, instead hosting larger crystals. Future experimentation involving other salts and compounds including magnesium chloride, potassium chloride, and calcium sulfate, as well as continued experiments with sodium chloride, will be performed in order to clarify and confirm these results and to more accurately mimic natural evaporite deposits.

Evan Blodgett (Geology)

Analysis of Color and Clarity Change in Heat Treated Gem Spinel

Project advisor: Dr. Michael Wolf

Poster Session 2 #4: Gävle Room, Center for Student Life

The heat treatment of gemstones, in order to improve their color and clarity, is an extremely old process, possibly as old as the gem trade itself. However, heat-treated gem spinel has only been introduced to the market within the last decade. Through various heat treating techniques employed by this study, changes in samples of spinel have been documented and analyzed using various methods. In this study, samples of spinel rough have been heat treated at a variety of temperatures as well as in both oxidizing and reducing environments, and with the addition of various light elements which apparently have diffused into the crystals. Part of the original samples is always left unheated so the heated samples can be compared to the originals.

To analyze both major and trace elements present in the samples that would affect the treatment process, x-ray fluorescence has been used. To analyze the color change in the samples FTIR spectroscopy has been used. From the XRF analysis I have hypothesized that inclusions of undissolved rutile causes the silkiness (cloudiness) in the samples. All samples experienced marked clarity improvement across the board when exposed to heat, as long as a minimum temperature was maintained for a certain time. Darker samples (purples, greens, blues) of spinel did not experience as dramatic a color change during the heat treatment as reds and pinks. However, under appropriately controlled conditions, red and pink spinel could undergo clarity improvements with or without major color change.

Joseph Romero (Geology)

The Effects of Clay on Glycerol/Carboxylic Acid Polymerization: Implications of Mineral Controls on Prebiotic Chemistry

Project Advisor: Dr. Michael Wolf

Poster Session 2 #5: Gävle Room, Center for Student Life

Proto-enzymatic catalysis on early Earth is considered in understanding the emergence of metabolic reaction networks, and, ultimately, complex life. Contemporary enzymes are composed of either organic or inorganic factors scaffolded by globular protein structure. In this study, I consider hyperbranched polyesters as a possible extant scaffold that is easier assembled than the peptide one. The goals of this project are to consider prebiotically plausible starting materials for such structure formation utilizing different conditions for polymer synthesis involving the presence of mineral surfaces as well as temperature and hydration differentials. Reactions of glycerol with certain carboxylic acids (citric, tartaric, succinic and fumaric) were studied as hyperbranched polyester candidates. Two synthetic variants of the clay montmorillonite (KSF and K10) were introduced into the polymerization milieu to observe their effects in the process. The presence of the clays was found not to affect the number of ester bonds formed or the kinetics of the polymerization product. The addition of clay, however, favored the formation of certain polymer conformations. These preliminary results indicate a potential selective pressure that clay minerals introduce into the chemical evolution of the hyperbranched polyester enzyme scaffolds and thus the advent of complex life.

Cody Johnson (Geology)

Determining Weathering Processes of the Great Unconformity in the Northern Rocky Mountains

Project Advisor: Dr. Michael Wolf

Poster Session 2 #6: Gävle Room, Center for Student Life

The Great Unconformity is a section of rock that stretches across the globe where a billion years-worth of material is missing between layers. This phenomenon can be found across Laurentia, Gondwana, Baltica, Avalonia and Siberia. The term "Great Unconformity" was first used in 1869 to explain the stratigraphy of the Grand Canyon which shows the ~525 Ma Cambrian Tapeats Sandstone, associated with a shallow marine environment, overlying the 1,740 Ma metamorphosed Vishnu Schist.

There are a few different ideas about what has caused this extensive section to weather away billions of years of the rock record. One theory is water slowly seeped through the overlying sandstone layer and remained on top of the granite layer, causing chemical weathering. The second theory is the erosion was caused by a massive marine transgression, exposing the crystalline basement rock to erosion, followed by sedimentation.

The main samples for analysis were collected from the Clarks Fork Canyon, Meadowlark Lake, and Owl Creek Mountains in Central and Northwestern Wyoming. Ten samples were sent out to be prepped into thin sections for microscope analysis. All 19 samples were crushed and prepped for X-Ray Fluorescence analysis to determine major rock forming minerals and trace elements. Through microscope analysis several occurrences of hydrothermal inclusions have been found. If high amounts of sodium are found through XRF analysis it will be indicative of a marine transgression causing the erosion of the Great Unconformity, whereas a lack of salts would indicate water seeping through the sandstone layer causing the erosion of the crystalline basement.

Brian Trausch (Geology)

Grain Mineralogy, Provenance, and Environmental Issues of Lake Michigan Sands

Project Advisor: Dr Jeffrey Strasser

Poster Session 2 #7: Gävle Room, Center for Student Life

The littoral drift system of Lake Michigan controls the way in which sediments are transferred and deposited in different locations around the lake bed. A suite of base metals such as lead, chromium and antimony, among others, are likely to be found in Lake Michigan sands as a result of the steel industry in northwest Indiana.

Nine samples were collected from beaches along the southern shore of Lake Michigan between Waukegan Harbor (approximately 80 miles northwest of the steel industry on the Indiana lakefront) and Warren Dunes State Park (approximately 40 miles northeast of the industrial area), June through August of 2014. A tenth sample was taken in Lake Bluff from an accumulation of dark material on the shore during December of 2014. These samples were analyzed with X-Ray Fluorescence spectroscopy to determine major and trace element compositions. Data is anticipated at later date, and the compositions are being assessed.

I expect to find traces of slag and heavy metals originating from the Indiana Harbor steel industry area. The varying concentrations of heavy metals should reflect the littoral drift system of the lake and anthropogenic shore alterations. My results will be compared to previous site assessments and recognized environmental condition parameters to determine whether hazardous conditions exist at my sampling sites. All of the data will be presented using a map after spatial analysis in relation to the steel industries on the Indiana lakeshore and the concentrations of significant metals.

Ryan Plath (Geology)

Geochemical Analysis of Surface Materials Surrounding the Bausch-Gray Mine Superfund Site Near Galena, Illinois

Project Advisor: Dr. Jeffrey Strasser and Dr. Michael Wolf

Poster Session 2 #8: Gävle Room, Center for Student Life

The Bausch-Gray zinc and lead mine, near Galena, Ill., was in operation from the early 1900s until closing in 1975. The mine's tailings pile has documented elevated lead and zinc concentrations in the surface materials surrounding the site. Numerous floods have caused contaminated sediment to migrate off the mine tailings pile, across Blackjack Road and into an outwash basin, and towards Smallpox Creek. Since this site was designated an EPA priority list superfund site in 2010, there have been numerous remediation efforts.

This study attempts to develop a better understanding of the contamination within the soils of the outwash basin down-gradient of the mine as well as within the sediment bedload and vegetation of Smallpox Creek. Forty samples were collected, using a shovel or garden trowel, throughout this area and analyzed for lead and zinc contamination using X-ray fluorescence spectrometry. Excluding six samples from the mine tailings (that served as a baseline for contamination levels in mine tailing sediments), 17 samples exceeded the lead contamination limit of 400 ppm for soils near a superfund site and 21 samples exceeded the zinc contamination limit of 7500 ppm for soils near a superfund site.

Though there have been mitigation efforts to remove contamination from the outwash area, these results indicate that there is still more work to be done. High concentrations of lead and zinc in the outwash basin indicate that Smallpox Creek is susceptible to continued contamination from this site.

Ryan Urbanski (Geology)

Spatial Analysis of Lead Concentrations in Soil around the Historic Broadway District of Rock Island, IL

Project Advisor: Dr. Michael Wolf

Poster Session 2 #9: Gävle Room, Center for Student Life

The purpose of this study is to perform a spatial analysis of the lead content of soil in the Historic Broadway District of Rock Island, Illinois. Forty samples of soil were collected from around the homes of the Broadway District. Construction of the neighborhood was completed in 1915 and includes approximately 100 historic homes. This study location was selected because of the age of the homes and the known use of lead paint. Lead paint was used on every home within the study area, and paint chips, which could possibly contain Pb, were observed at most sampling sites. The determination of the lead content of each sample was performed using a Rigaku Supermini X-Ray Fluorescence spectrometer. Data were plotted using GIS software to provide a spatial understanding of what areas are most contaminated. Samples from other locations around the Rock Island area provide a base for comparison of lead in local soils that were presumably not contaminated with Pb-based paint. The results of this analysis will help quantify the effect Pb-based paint has on local soil and the extent of contamination in the Broadway District.

William Lardner (Geology)

The Relationships between Mean Bed Load Diameter, Channel Morphology, and Drainage Basin Area at Knickpoints of Mill Creek, Illinois

Project Advisor: Dr. Jeffrey Strasser

Poster Session 2 #10: Gävle Room, Center for Student Life

Many studies on knickpoints focus on stream system responses to base level drop, spatial variations in bedrock, tectonic events, or changes in discharge. However, in lower order streams, knickpoints often are associated with abrupt changes in sediment load or grain size distribution at the bed. Such changes are especially common near tributary junctions, where abrupt downstream increases in drainage basin area occur. It is commonly accepted that there is an overall decrease in grain size from the upper reaches of a channel profile to the lower reaches. A major cause for this decrease in grain size is an increase in discharge which allows a channel to decrease its slope and increase its width/depth ratio (change in width is typically more rapid than the change in depth).

This study focuses on knickpoint morphology and its relation to variations in bed load grain size distribution, channel cross sectional area, and drainage basin area. The study site is Mill Creek, a tributary of the Rock River in Illinois. The goal of the study is to test the hypotheses that knickpoints are associated with tributary junctions and that at each knickpoint an abrupt decrease in mean bed load diameter occurs as the channel shape becomes wider and deeper downstream.

Samples were collected from the three areas at knickpoint locations: (1) the knickpoint face, (2) the relict channel (channel unaltered by knickpoint formation), and (3) the adjusted channel (area immediately downstream of the knickpoint face). The grain size distribution and channel shape/area was taken for these three features of each knickpoint sampled. Results were then compared with other knickpoints based on their position on the channel profile and relative change in drainage area (size of tributary junction).

Kevin Gosiewski (Geology)

LIDAR Detection of Unstable Slopes in Rock Island County, IL

Project Advisor: Dr. Jeffrey Strasser

Poster Session 2 #11: Gävle Room, Center for Student Life

Unstable slopes are problematic in developed areas, and the ravines of the Quad Cities metropolitan area of Illinois and Iowa pose a challenge for property owners and local governments. City planners rely on accurate, updated hazard maps. Formerly, land hazard mapping has been limited by the resolution of topographic maps and aerial photographs, resulting in significant field work necessary to identify unstable slopes. This study employs LIDAR data as a high-resolution alternative to standard topographic maps, testing the results with the published map, Geologic Conditions Affecting General Construction in Rock Island County, Ill.

The terrain consists of deep ravines dissecting the upland areas between the Rock River to the south and the Mississippi River to the north. Shales of the Pennsylvanian System are exposed in many ravines, overlain by Illinoian till (Glasford Fm.) and Wisconsinian silt and loess. This combination is responsible for ongoing soil creep and intermittent slumping and sliding, with failure often initiated in the lower shale layers due to undercutting by small streams.

LIDAR data was acquired online through the Illinois State Geological Survey's Geospatial Clearinghouse's county data. Data was then converted using Geographic Information Systems to view the data as a digital elevation model. Data was then surveyed for areas of irregular hummocks along bluffs and in ravines. The denoted areas of interest were marked on a map, field checked, and compared to the published map. Results confirm that unstable slopes can be readily identified with LIDAR interpretation, although field verification remains a necessary task for those creating hazard maps. The findings of this study agreed with the hazardous areas previously mapped, however no new sections were distinguished.

Luke Lampo (Geology)

Water Quality, Chemistry, and Hydrology of Salt Creek in Northeastern Illinois

Project Advisor: Dr. Jeffrey Strasser

Poster Session 2 #12: Gävle Room, Center for Student Life

Salt Creek flows through the metropolitan area of Chicago and into the Des Plaines River. Its urban environment provides multiple sources of contamination, including storm runoff, combined sewer overflow, and wastewater treatment plant discharge. The purpose of this study is to determine how water chemistry changes downstream, whether the presence and levels of metals meet IPCB (Illinois Pollution Control Board) and EPA water quality standards, and how water chemistry changes during periods of storm flow and base flow.

The study area consists of 10 sites along a 37 km stretch of Salt Creek. Water samples were taken every other week during June, July and August of 2014. Six of these sites are located near USGS gaging stations, and corresponding hydrographs were collected to determine hydrological characteristics of the creek such as storm flow and base flow conditions. Hydrographs show Salt Creek as a "flashy" stream, a result of being in an urban area with a large amount of impervious space. Due to its "flashy" behavior, the frequency of flooding and the rate of erosion have increased. Analysis of water samples was done with an X-Ray Fluorescence spectrometer (XRF) to determine concentrations of metals (As, Cu, Fe, Ni, Pb, Zn), and other ions (Ca, Mg, Na). Other measurements included conductivity, temperature, and pH.

Concentrations of As and Pb above IPCB limits were found throughout the study area and concentrations of Fe above IPCB standards were

found in more downstream regions during both periods of storm flow and base flow. Fe was more often present during periods of storm flow. Concentrations of Cu, Ni, and Zn were generally below IPCB limits. Consistently high concentrations of As, Pb, and Fe were found in samples taken near the city of Elmhurst, and several possible industrial point sources have been identified. Two upstream sites near Rolling Meadows and Elk Grove had conductivity measurements above EPA standards set for the creek. Rolling Meadows also had consistently higher values for Ca, Mg, and Na.

Jose Rosalez, Michael Ems, Breanne Kelley (Economic Botany)

Uses of Caffeine in the History of Coffee

Project Advisor: Dr. Bohdan Dziadyk

Poster Session 2 #13: Gävle Room, Center for Student Life

According to myths, coffee was discovered after someone noticed that goats did not sleep and "danced" all night after eating the berries from a coffee plant. Ever since its domestication, coffee has been incorporated into our daily lives. It was originally served to keep people awake for late hours of prayer. Not much has changed since then; now it functions to keep people alert and active while managing their often stressful lifestyles.

Its popularity stems from its active ingredient, caffeine. Caffeine is the most commonly consumed psychoactive substance in the world and is a well known stimulant. What is not commonly discussed is how coffee developed into what it is now.

Commercially, the most significant species of coffee is *Coffea arabica* Linnaeus (*Rubiaceae*) and it is what most people around the globe consume. We analyze its history starting from its discovery in Ethiopia to its domestication and current use. The possible future uses of coffee and caffeine also are examined. Consuming coffee to gain "energy" will likely continue to occur but there are also studies attempting to integrate caffeine into health supplements.

Alyssa Szymanski, Laura Becker, Yvonne Skrzypczak (Economic Botany)

The Medical and Cultural Uses of the Coca Plant

Project Advisor: Dr. Bohdan Dziadyk

Poster Session 2 #14: Gävle Room, Center for Student Life

The coca plant has numerous medical, spiritual and cultural uses in the South American Region, although its strong connection with cocaine threatens the communities whose lives are centered around it. Coca (*Erythroxylum coca*) is a small tree that can grow to about 2.4 meters tall (~ 8ft) and the leaves of the coca contain alkaloids which can be easily extracted to produce cocaine, due to this easy extraction from the coca leaf.

The coca plant is illegal in many countries; however, the plant itself is not harmful. Coca plant has medicinal uses, such as overcoming altitude sickness, bleeding, malaria and asthma. The plant provides a minor numbing sensation, making it vital for workers who work in taxing environments, such as mines and agriculture fields. Aside from the medicinal benefits of the coca leaf, the plant also is deeply rooted in the culture of communities in South America, in Andean societies, where the coca leaf holds spiritual meaning and is used as a form of currency. The use of coca in religious ceremonies has been recorded as early as 2500 B.C., and it is still used today.

However, after cocaine was first extracted from the coca plant in 1859, its medicinal uses were largely ignored. Communities in South America who depend on the coca plant were put in danger of extinction due to the ongoing wars on cocaine. With efforts of many governments in South America, the cultivation and use of the coca plant is still allowed and the communities continue to exist.

Tim Michaels (Biology)

Seed Transmission of Soybean Vein Necrosis Virus

Project Advisor: Stephanie Fuhr

Poster Session 2 #15: Gävle Room, Center for Student Life

Soybean vein necrosis virus (SVNV) comes from the *Tospovirus* genus, a group of viruses capable of infecting and seriously damaging a wide variety of crops. It is hypothesized that the virus has been present in soybeans for some time; however, the actual length of time is unclear due to several camouflaging damage patterns characteristic to the virus. These patterns often are confused with damage patterns of other soybean maladies. This leads to misdiagnosis and has allowed the virus to remain undetected for some time.

Due to the viral damage similarities and the recent detection of this virus, only a small number of studies pertaining to SVNV have been published. To add to this, only a handful of detection methods for this virus exist. Thus, the importance of developing a detection method of the virus is clear, as well as the importance of determining the methods of transmission for the virus.

Fallon Meyer (Geology)

Mercury Contamination in Arctic Seabird Eggs From Northwestern Greenland

Project Advisor: Dr. Jennifer Burnham, Dr. Michael Wolf

Poster Session 2 #17: Gävle Room, Center for Student Life

Mercury is a toxic pollutant whose presence is becoming more pronounced in the Arctic. It readily enters the food chain through aquatic pathways and biomagnifies with increasing trophic levels where it can reach dangerous levels in top predators such as seabirds. Seabirds have been identified as reliable monitors for environmental contaminants, but little is known about mercury concentrations in seabirds of northwestern Greenland. To better understand this, whole eggs were collected from three abundant avian species near Thule Air Base, Greenland (76° N, 68° W): black-legged kittiwake (*Rissa tridactyla*), thick-billed murre (*Uria lomvia*), and common eider (*Somateria mollissima*). Dried whole egg content was analyzed for total mercury (THg) and eggshell thickness was measured.

Thick-billed murre eggs were found to have the highest total mercury concentrations and common eiders had the lowest. Preliminary results indicate that THg content is in the same magnitude, but higher than studies of the same species at lower latitudes. Initial analysis of results also suggest that there is no correlation between eggshell thickness and THg content.

Elizabeth Cowan, Diana Schultz, Jacob Torres (Economic Botany)

Analgesics From the Opium Poppy Plant

Project Advisor: Dr. Bohdan Dziadyk

Poster Session 2 #18: Gävle Room, Center for Student Life

Analgesics, compounds used to treat pain, are widely diverse and have had great impact on the ways in which we treat pain today. The opium poppy (*Papaver somniferum*, *Papaveraceae*) is one example of an analgesic plant that can be traced back to origins in the Middle East, where it has been used to treat pain since as early as 3,000 BC. There is evidence found in the form of cave paintings and archaeological objects that indicate that it was either a semi-cultivated weed or a fully cultivated crop.

Opium is the milky latex that is produced by the pod or fruit and is what contains the various opiates such as codeine and morphine. Australia, Turkey and India are currently the major producers of poppy for medicinal purposes and drugs such as morphine or codeine. The popularity of the poppy plant continues to increase for not only

medicinal purposes, but also through its uses with food as a garnish or a spice on breads and salads.

The poppy has also been long used as an illegal drug substance. The poppy plant has been used throughout history for its opiate containing compounds from which morphine and heroine were developed. Civilizations that go as far back as the Sumerians, Babylonians and Egyptians have used the drug's mind-altering properties for medicinal and recreational uses. Today, the plant continues to have a strong impact on the development of medicines, and unfortunately continues to be abused by many in the drug trade.

**Morgan Conley, Lisa Pohlman-Zordan, Colten Keenan
(Economic Botany)**

Nicotine and the Appeal of Tobacco

Project Advisor: Dr. Bohdan Dziadyk

Poster Session 2 #19: Gävle Room, Center for Student Life

Commercial tobacco (*Nicotiana tabacum*, *Solanaceae*), is a plant that has played a prominent role in many cultures for both its medicinal and recreational uses. Endemic to the North and South American continents, tobacco use had been prevalent among Native Americans for thousands of years for medicinal, spiritual and communal purposes. European explorers in the 16th century were the first to commercialize and export the crop, incentivizing colonization and the importation of African slaves. Tobacco use gradually grew throughout the world, gaining prominence in many Eurasian societies. The late 19th century saw technological innovations that allowed for the mass production of cigarettes, resulting in a steady increase in tobacco usage for much of the 20th century. This growth continued in developed nations until tobacco's negative health effects were revealed. These deleterious impacts of carcinogenic smoke are exacerbated by nicotine, a secondary plant compound that is highly addictive.

Though tobacco use is decreasing in developed nations today, the cash crop is finding new niches in developing countries across the world. The tobacco industry benefits a nation's economy by providing thousands of jobs, and many people still use the plant for medicinal purposes including cures for toothaches, rashes, and snake and insect bites. Here we examine various trends in tobacco usage due in part to increasing public health restrictions, advertising capabilities, and the rise of e-cigarettes.

**Daniel Herrera, Steve Lavelle, Marckus Simmons
(Economic Botany)**

The Influence of Khat in Developing Nations

Project Advisor: Dr. Bohdan Dziadyk

Poster Session 2 #20: Gävle Room, Center for Student Life

Khat (*Catha edulis*, *Celastraceae*) is a stimulant and hallucinogenic plant that plays a large role in several cultures but is quickly becoming illegal around the world. The plant leaf is chewed to facilitate the release of the chemical Cathinone into the body, which brings a feeling of euphoria. While comparable to the effects of tobacco, it also has been reported to cause hallucinations. Statistics show that in countries such as Yemen, 90% of men and 70% percent of women chew Khat for up to four hours daily. This has contributed to a fall in the family structure, and reported health issues for those who use Khat regularly. Because of its high profit, farmers are choosing to grow Khat instead of food crops, and the food supply available is decreasing in these countries. Many countries have made Khat illegal because of its psychoactive and addictive properties. Due largely to its addictive qualities, Khat has led to the degradation of economic systems, agriculture and family structures where it is used.

Mayu Oya, Brooke Heibel (Psychology, Behavioral Neuroscience)

Formation of Fear Memory in Young Chickens

Project Advisor: Dr. Shara Stough

Poster Session 2 #22: Gävle Room, Center for Student Life

Post-traumatic stress disorder (PTSD) in humans is thought to result from unusually strong memory for a life-threatening experience and the associated environmental cues surrounding the event. We investigated the formation of fear memories in chickens using two classical paradigms for associative learning.

In Experiment 1, chicks experienced a predator stimulus (including eyes, hawk-shaped shadow, and sounds) in a visually distinct environment 3x/day for four days. On the fifth day, chicks' preference for the predator cue-paired environment was assessed using a conditioned place aversion paradigm. Chicks in the experimental group did not demonstrate avoidance of the predator-paired environment. However, two other related behavioral measures (locomotion and freezing) indicated that chicks exposed to the predator cues during training did have a memory of the negative experience.

In Experiment 2, chicks were again exposed to predator cues (shadow and sound) and fear memory was assessed at the beginning of each training session to track development of fear over repeated pairings of the negative stimulus with environmental cues. In this contextual fear conditioning experiment, chicks did not demonstrate the same level of fear as Experiment 1. These results suggest the critical importance of eyes as a fear-inducing predator cue. Future experiments will explore this more thoroughly.

Megan Steinhoff, Elyzia Powers, Mayu Oya, Katrina Friedrich, Brooke Heibel (Psychology, Behavioral Neuroscience)

Investigating the Relationship between Anxiety and Social Behavior in Chicks

Project Advisor: Dr. Shara Stough

Poster Session 2 #23: Gävle Room, Center for Student Life

Research has shown that individuals who experience more stress and anxiety before a traumatic event have increased chances of developing post-traumatic stress disorder (PTSD) in response to that event. Furthermore, strong social support predicts better outcomes for individuals coping with PTSD. The purpose of this experiment was to investigate the relationship between anxiety and social behavior in a chick model.

We operationalized baseline anxiety in young chicks as the number of distress peeps emitted during a 30-second isolation test. Chicks were ranked by baseline anxiety levels and re-housed with three chicks of similar anxiety levels. After 48 hours to reestablish pecking order and form bonds with their new cagemates, pairs of chicks were tested in a social behavior test. Latency to make contact, total contact time, and distress peeps were measured.

We hypothesized that chicks with higher levels of baseline anxiety would reestablish contact sooner and would spend more time in contact during testing. As predicted, chicks with higher baseline anxiety also showed higher anxiety during the social contact test. We also observed an expected relationship between our measures of sociability. Shorter latency to first contact was correlated with longer total contact time. The results showed that chicks with higher anxiety tended to have lower latency to first contact and longer contact times, but did not reach statistical significance. Future studies will be aimed at increasing sample size and reducing inter-scorer variability so we can investigate the impact of anxiety and social behavior on fear memory formation in chicks.

Katrina Friedrich, Daniel Andon, Mayu Oya, Elyzia Powers (Psychology, Behavioral Neuroscience)

Analysis of Fear Expression and Memory Formation in Young Chicks

Project Advisor: Dr. Shara Stough

Poster Session 2 #24: Gävle Room, Center for Student Life

Previous results in the Stough lab demonstrated that chicks can form associative fear memories following exposure to visual and auditory predator cues. We performed two different experiments to further investigate memory for these negative events. Data analysis is in progress, but preliminary analyses indicate that chicks in both experiments failed to express fear memory when re-exposed to the environment where they had previously experienced predator-related stimuli. These results suggest that our training conditions are not optimized for the induction of robust memory.

Results from other related experiments point to the possibility that one important variable for further exploration may be age at the time of learning. We have designed our experiments based on the age at which fear expression peaks in young chicks, however the ability to form an associative memory between that fear-inducing experience and paired environmental cues may not fully develop until a later time. Future experiments will compare memory formation following identical training experiences by chicks at 7, 14 or 21 days post hatch in an attempt to identify critical age-related differences that may explain our conflicting observations.

Ruby Loera (Neuroscience)

Neuroprotective Benefits of Simulated Maternal Care in an Animal Model of Febrile Status Epilepticus

Project Advisor: Dr. Ian Harrington

Poster Session 2 #25: Gävle Room, Center for Student Life

Approximately 1 in 25 children will experience a febrile seizure (FS; fever-induced convulsions) before age 4, making these the most common form of seizures in early life (Huang, 2014). Studies in humans have suggested that prolonged FS may promote epileptogenic processes (Hesdorffer & Hauser, 2002) and could be a possible cause of temporal lobe epilepsy (TLE).

Previous studies have shown that early-rearing and post-seizure recovery environment in mouse pups (environmental enrichment vs. maternal deprivation) affect susceptibility to neuronal damage and recovery from seizure (Kazl et al., 2009). These results suggest that environment can influence the effect of seizures on the developing brain. In the present study we sought to control the quality of maternal care on seizure-induced inflammation. We simulated good maternal care by gentle brushing while pups were separated from their dam for 3 hours from P[postnatal day]3-P13. CX3CR1 GFP/+ mice were used to visualize and quantify microglia, immune cells in the brain. Results suggested a trend that early life stress of maternal deprivation may result in increased neurological damage following FS, because microglia quantification showed a higher percent-area microglia activation compared to maternal simulated mice on P19, suggesting that simulated maternal care might protect from this damage faster.

Brittany Burk (Psychology/Neuroscience, Sociology, Anthropology)

Post-Traumatic Stress Disorder within Refugee Populations and its Effects on Acculturation into the United States

Project Advisor: Dr. Rupa Gordon

Poster Session 2 #26: Gävle Room, Center for Student Life

The focus of this Honors Capstone research was to better understand the process through which a refugee acculturates into U.S.

society. To do this, the effects of post-traumatic stress disorder, cultural differences, United States citizens' perceptions of refugees, and other challenges were addressed. A survey was conducted involving citizens' perceptions of refugees, and revealed that individuals' perceptions were determined by refugee status, PTSD and/or situational differences, depending on the scenario being described. This research seeks to address the problems faced by refugees entering the United States and proposes some solutions to provide a better transition into the U.S. culture by these refugees.

Marcela Fitzpatrick, Megan Petersohn (Biology, Neuroscience)

Purifying a Dopamine Cell Line to Improve a Cell Model of Parkinson's Disease

Project Advisors: Dr. Curt Freed (Professor of Medicine, Pharmacology, Neurology and Neurosurgery at University of Colorado School of Medicine), Dr. Ian Harrington, Stephanie Fuhr

Poster Session 2 #27: Gävle Room, Center for Student Life

Parkinson's disease (PD) is the second most common neurodegenerative disease in the United States. The onset of PD is characterized by the death of dopamine (DA) neurons in the substantia nigra. In order to understand the molecular mechanisms of PD, it is desirable to have a dopamine cell line to serve as an in vitro model of the disease.

In the 1990s, our laboratory developed a dopaminergic cell line from fetal rat mesencephalic dopamine neurons immortalized with the SV40 large T Antigen. These were named N27 cells. The original N27 cell line was a heterogenous mixture of cell types expressing highly varying levels of Tyrosine Hydroxylase (TH), a primary marker for dopamine neuron phenotype. Our objective was to culture and isolate single N27 cells with high expression levels of TH, and other authentic markers of dopamine neurons to create a more homogenous culture.

Alex Miller (Biology, Neuroscience)

Semaphorin3A Shifts the Motility Response of Breast Epithelial Cells Through Increased Focal Adhesions in Response to Changes in Fibronectin Concentration

Project Advisor: Dr. Scott Gehler

Poster Session 2 #28: Gävle Room, Center for Student Life

During the development of the nervous system, axonal pathfinding is directed by guidance molecules. Semaphorin 3A (Sema3A) plays an important role in axonal pathfinding and growth cone guidance. Interestingly, Sema3A also has been shown to inhibit cancer cell migration and metastasis (Herman & Meadows, 2007; Pan et al., 2009).

Various studies have suggested that cells encounter an optimal level of adhesiveness to the extracellular matrix (ECM) to enable maximal cell motility (DiMilla et al., 1993). Since Sema3A has been found to increase integrin receptor expression in breast cancer cells (Pan et al., 2009), we propose Sema3A alters breast epithelial cell motility on different concentrations of fibronectin through enhanced integrin adhesion dynamics.

Using a range of concentrations for fibronectin, MDA-MB-231 breast epithelial cells exhibited maximal migration and spreading at intermediate concentrations, while Sema3A treated cells demonstrated maximal migration and spreading at lower concentrations of fibronectin, but inhibited migration at intermediate and high concentrations. Also, Sema3A increased focal adhesion formation in cells at all fibronectin concentrations compared to control. Taken together, these results indicate that Sema3A shifts the balance between ECM concentration and integrin-based adhesion to produce maximal cell migration speeds at lower concentrations of fibronectin, while reducing speeds higher concentrations.

Catherine Dinklenburg (Biology)

Experience and Outcomes with Treatment of Coronary Chronic Total Occlusions at a Tertiary Medical Center: A Retrospective Analysis (CTO)

Project Advisor: Stephanie Fuhr

Poster Session 2 #29: Gävle Room, Center for Student Life

Coronary Chronic Total Occlusion (CTO) results in the complete blockage of the coronary artery for at least three months. CTOs represent a complex subgroup of coronary lesions that is often challenging to treat with the non-invasive percutaneous coronary intervention (PCI). It is likely that when this treatment is performed by a small, select number of physicians in each medical center, it may lead to high procedural success and a reduced number of major adverse events (MAE). Since the treatment of CTOs falls within the acquired skills of an interventional cardiologist, it is unclear whether the earlier treatment of the CTO by an experienced interventionalist will improve procedural and long-term outcomes and reduce MAE of succeeding treated cases.

While some research has investigated the effects of various treatment options for CTOs, few studies have investigated specific procedural and long-term success when treated by one interventionalist, and whether a "learning curve" exists for treating the CTO. The purpose of this study was to investigate the acute procedural success and one-year outcome of patients treated for coronary chronic total occlusion when treated by a single physician and to determine whether the learning curve in treating these coronary total occlusions exists.

Note: *interventionalist*, *interventional cardiologist* and *physician* may be used interchangeably.

AUGUSTANA FACULTY PUBLICATIONS

CALENDAR YEAR 2014

(Updated 4/14/15)

Bahls, Steven C. *Shared Governance in Times of Change: A Practical Guide for Universities and Colleges.* Washington D.C.: Association of Governing Boards Press, 2014

Banks, Jacob. *Rock Island Line* for orchestra. Commissioned by the Quad City Symphony. 2014.

Banks, Jacob. *Five Pieces for Violin and Piano.* Commissioned by the Quad City Symphony. 2014.

Banks, Jacob. *Sign of the Times* for percussion ensemble. Commissioned by the University of Houston. 2014.

Banks, Jacob. Radio Broadcast of "Rock Island Line." *Performance Today (American Public Media)*, 29 Aug. 2014.

Banks, Jacob. Radio Broadcast of "Rock Island Line." *BBC Radio 3, Arbor una nobilis*, 17 Dec. 2014.

Bluemle, Stefanie, Amanda Makula and Margaret Rogal. "The Joy of (Performance) Assessment." Poster presented at the Illinois Association of College & Research Libraries (IACRL) Conference, Oak Brook, IL, 20-21 Mar. 2014.

Boaden, Ann. "Peter." *The Penwood Review* 18 Fall 2014, 2: 12.

Bracke, Deborah. "Random Memorandums." *The Teaching Professor* 28 Oct. 2014, 8: 2.

Brosius, Tierney, L. Johnson, and L.G. Higley. "Using the visual arts to promote the conservation of the Salt Creek tiger beetle." *American Entomologist* 60 Jan. 2014, 1: 39-43.

Burnham, Kurt, Jennifer Burnham, D.R. Sennett, J.A. Johnson, J.A. Baroch, and B.W. Konkel. "New species records and changes in abundance of waterfowl in northwest Greenland." *Polar Biology* 37 Sept. 2104, 9: 1289-1300.

Calder, Lendol. "The Stories We Tell." *OAH Magazine of History* 27 2013, 3: 5-8. This 2013 article won the American Historical Association's 2014 Gilbert Award for Best Article of the Year on the Teaching of History.

Cleveland, Todd. "Beneficial and Baneful: The Complex Histories of Africa's Diamonds." Presented at the University of New Hampshire, Durham, NH, 2014.

Cleveland, Todd. "Blood Diamonds: Before and After the Phenomenon." Presented at an invited lecture at the University of Iowa, Iowa City, IA, 2014.

Cleveland, Todd. "Divergent Labor Regimes, Similar Outcomes: Staffing Diamond Mines with African Workers in Angola and the Gold Coast during the Interwar Period." Presented at the Pathways into Colonial (and Postcolonial) Coercion Workshop, Accra and Ho, Ghana, Jan., 2014.

Cleveland, Todd. "Following the Ball: African Soccer Players, Labor Strategies, and Emigration Across the Portuguese Colonial Empire, 1949-75." Presented at an invited lecture at the University of Wisconsin - La Crosse, La Crosse, WI, 2014.

Cleveland, Todd. "From Fieldwork to the Book." Presented at the University of Iowa, Iowa City, IA, 2014.

Cleveland, Todd. "Soccer as Religion: Producing Nationalism and Identity in the Modern World." Presented at the University of New Hampshire, Durham, NH, 18 Sept. 2014.

Cleveland, Todd. *Stones of Contention: A History of Africa's Diamonds.* Athens, OH: Ohio University Press, 2014.

Coussens, Jeffrey. Producer, Quad City Playwrights' Workshop, Black Box Theatre, Bergendoff Hall of Fine Arts, Augustana College, Rock Island, IL, 17 May 2014.

Croll, Paul. "Contradictions in Whiteness: Identity, Privilege, and Colorblindness." Presented at the Fall 2014 Sociology Research Colloquium, Illinois Wesleyan University, Bloomington, IL, Nov. 2014.

Croll, Paul. "Examining the Content of White Racial Identity: Progressive, Defensive, Both or Neither." Presented at the 2014 Annual Meeting of the Midwest Sociological Society, Omaha, NB, 4 Apr. 2014.

Crowe, David. *Cosmic Defiance: Updike's Kierkegaard and the Maple Stories.* Macon, GA: Mercer University Press, 2014.

Daniels, Kelly. "Cloudbreak, California." Presented at the Georgia State University's Alumni Reading, Atlanta, GA, Feb. 2014.

Daniels, Kelly. "Cloudbreak, California." Presented at the Suffolk Community College Annual Creative Writing Festival, Long Island, NY, Apr. 2014.

Day, Kirsten. "Cowboy Classics: Golden Age Westerns and Virgil's Aeneid." Presented at the Film History Conference, Madison, WI, 29 Oct.-2 Nov. 2014.

Delaney, John, and Michael Reddington. "Detecting deceit with micro-expression analysis." *Fraud Magazine* 29 Sept./Oct. 2014: 16-17.

Drazinski, Lynn. "Acquired and Developmental Executive Dysfunction: Common Principles of Intervention." *Perspectives on School Based Issues* 15 2014: 134-140.

Dyer, Joshua. "Bridging Physics and Biology Using Resistance and Axons." *The Physics Teacher* 52 . Nov. 2014: 466. <http://dx.doi.org/10.1119/1.4897581>.

Dziadyk, Bohdan. "A Greening of Morality - Bioethics for a More Sustainable Planet." Poster Presented at the UNESCO Conference BOTANISTS OF THE TWENTY-FIRST CENTURY: Roles, Challenges and Opportunities, Paris, France, 22-25 Sept. 2014.

Fockler, Matthew. "The National Forest Imperative: A Historical Geography of National Forest Landscapes, Northern Rockies, Montana." Presented to the Department of Earth Sciences, Montana State University, Bozeman, MT, 2014.

Frank, Nathan, J.K. Smith, T. Baumann, D. Bazin, J. Brown, S. Casarotto, P.A. DeYoung, J. Hinnefeld, M. Hoffman, M.D. Jones, Z. Kohley, B. Luther, B. Marks, N. Smith, J. Snyder, A. Spyrou, S.L. Stephenson, M. Thoennessen, N. Viscariello, and S.J. Williams. "Low-lying neutron unbound states in ^{12}Be ." *Physical Review C* 90 2014: 024309.

Frank, Nathan, Z. Kohley, T. Baumann, D. Bazin, G. Christian, P.A. DeYoung, J.E. Finck, R.A. Haring-Kaye, J. Hinnefeld, E. Lunderberg, B. Luther, S. Mosby, W.A. Peters, J.K. Smith, J. Snyder, S.L. Stephenson, M.J. Strongman, A. Spyrou, M. Thoennessen, and A. Volya. "Structure and decay correlations of two-neutron systems beyond the dripline." *Journal of Physics Conference Series* 569 2014: 012033.

Frank, Nathan. "Physics Colloquium." Presented to the Hampton University Department of Physics, Hampton, VA, 3 April 2014.

Frank, Nathan. "Physics Active Learning (PAL) Problems in a Biological Context." Presented at the American Association of Physics Teachers Summer Meeting, Minneapolis, MN, 29 July 2014.

- Frank, Nathan.** "Quizzes or Exams: that is the question." Presented at the Fall Meeting of the Iowa and Illinois Sections of the American Association of Physics Teachers, Bettendorf, IA, 24 Oct. 2014.
- Frank, Nathan.** "Studying Atomic Nuclei with Undergraduates." Presented at the Physics Seminar, Hampton, VA, 3 April 2014.
- Gehler, Scott,** and Alex M. Miller. "Semaphorin3A Shifts the Biphasic Relationship Between Cell Motility and Substratum Concentration Through Increased Focal Adhesion Formation." Presented at the American Society for Cell Biology, Philadelphia, PA, 2014.
- Gillette, Meg,** ed. *The Stories We Tell: Modernism in the Tri-Cities.* Rock Island, IL: East Hall Press, 2014.
- Goebel, Catherine.** "Wilde About Whistler: The 'Gentle Art' of Critical Dialogue." Presented at Cosmopolitan Wilde: A Conference Celebrating 160 Years of Oscar, Paris, France, 10-13 June 2014.
- Gordon, Rupa Gupta.** "The physiological basis of synchronizing conversational rhythms: the role of the ventromedial prefrontal cortex." *Neuropsychology* 28 Apr. 2014 4: 624-630.
- Hartman, Laura.** "Thinking Well in a Desperate Situation: Pride, Sloth, and Metaphors." Presented at the Association for Environmental Studies and Sciences, New York, June 2014.
- Haskill, Allison.** Peer-reviewed session based on "Verbal Inference in School Age Children with ASD, Language Impairment, and Typical Development." Presented at the 2014 American Speech- Language-Hearing Association Convention, Orlando, FL, 20-22 Nov. 2014
- Hay, Ellen, David Snowball, Sharon Varallo, Wendy Hilton-Morrow,** and **Stephen Klein.** "Research-Methods Modules: Preparing Students for the Capstone in Communication Studies." Council of Undergraduate Research Quarterly 34 July 2014 4: 6-10.
- Hilton-Morrow, Wendy.** "Mediating Trans Visibility." Presented at the National Communication Association's 100th Annual Convention, Chicago, IL, 20-23 November 2014.
- Hough, Carrie,** and Erica Prussing. "Breastfeeding Decisions and the Post-Partum Return to Employment: An Ethnographic Investigation of First-Time Mothers in the Midwestern US." Presented at the American Anthropological Association Annual Meeting, Washington D.C., 7 Dec. 2014.
- Huntsha, Lisa.** "What's Next in Collections Access, Discoverability, and Digital Projects: A Swedish Perspective." Presented at the Mountain Plains Museum Association Conference, Aspen, CO, 28 Sept. - 2 Oct. 2014.
- Hurty, Jon.** Conductor of the Augustana Choir at the Central Division Convention of the American Choral Directors Association, Cincinnati, OH, 28 Feb. 2014.
- Hurty, Jon.** Conductor of the Augustana Choir at the American Choral Directors Association Conference, Naperville, IL, 24 Oct. 2014.
- Hurty, Jon.** Guest Conductor of the Tian Kong Women's Choir and Mixed Choir, Wuhan, China, Nov. 2014.
- Hurty, Jon.** Guest Conductor of the West Virginia Music Educators Association All-State Choir, Wheeling, WV, 19-22 Mar. 2014.
- Jakielski, Kathy,** E. Maas, C.E. Gildersleeve-Neumann, and R. Stoeckel. "Motor-Based Intervention Protocols in Treatment of Childhood Apraxia of Speech (CAS)." *Current Developmental Disorders Reports* 1 2014, 3: 197-206.
- Jakielski, Kathy,** T. Macrae, K. Lansford, and K. Bedsole. "Acoustic and transcriptional measures of variability in CAS." Presented at the Annual Meeting of the American Speech, Language, and Hearing Association, Orlando, FL, Nov. 2014.
- Jakielski, Kathy.** "A phonetics-based approach for selecting speech goals and stimuli." Presented at the National Conference on Childhood Apraxia of Speech, Nashville, TN, July 2014.
- Jakielski, Kathy.** "Childhood apraxia of speech: Background information and goal setting." Presented at the 10th Annual Conference in Communicative Disorders at the University of Louisiana at Lafayette, Lafayette, LA, Apr. 2014.
- Jakielski, Kathy.** "Childhood apraxia of speech: Differential diagnosis and evidence-based intervention." Presented at the Childhood Apraxia of Speech Association of North America, Salt Lake City, UT, Mar. 2014.
- Jakielski, Kathy,** and **Perreau, Ann.** "Evaluating active learning strategies in an undergraduate audiology course." Presented at the Annual Meeting of the American Speech, Language, and Hearing Association, Orlando, FL, Nov. 2014.
- Jakielski, Kathy,** and L. Stueber. "Medical, birth, and developmental factors reported in children with CAS." Presented at the Annual Meeting of the American Speech, Language, and Hearing Association, Orlando, FL, Nov. 2014.
- Jakielski, Kathy,** S. Rvachew, and J. Trost-Cardamon. "Speech sound disorders: What's in your therapy toolbox?" Presented at the Annual Meeting of the American Speech, Language, and Hearing Association, Orlando, FL, Nov. 2014.
- Jakielski, Kathy.** Peer-reviewed poster session based on "Medical, Birth, and Developmental Factors Reported in Children with Childhood Apraxia of Speech." Presented at the 2014 American Speech-Language-Hearing Association Convention, Orlando, FL, 20-22 Nov. 2014.
- Katz, Brian,** and Elizabeth Thoren. "WikiTextbooks: Designing Your Course Around a Collaborative Writing Project." *PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)* 24 2014, 7: p574-593.
- Katz, Brian.** "An Active Introduction to Sage." Presented at MathFest, Portland, OR, 8 Aug. 2014.
- Katz, Brian.** "Collaborative Assessments." Presented at the Joint Meetings of the Mathematical Societies, Baltimore, MD, 15 Jan. 2014.
- Katz, Brian,** John Paul Cook, and Milos Savic. "Developing Reinvention Materials in Ring Theory: Analysis of Students' Mathematical Activity." Presented at the Joint Meetings of the Mathematical Societies, Baltimore, MD, 16 Jan. 2014.
- Katz, Brian,** John Paul Cook, and Milos Savic. "Guided Reinvention of Rings." Presented at the Inquiry-Based Learning Conference, Denver, CO, 20 June 2014.
- Katz, Brian,** and Elizabeth Thoren. "Inquiry Minds Want to Know." Presented at the Inquiry-Based Learning Conference, Denver, CO, 21 June 2014.
- Katz, Brian.** "Student Views about Truth in Axiomatic Mathematics." Presented at the Conference on Research in Undergraduate Mathematics Education, Denver, CO, 28 Feb. 2014.
- Kaul, Adam.** "Music on the Edge: Busking at the Cliffs of Moher and the Commodification of a Musical Landscape." *Tourist Studies* 14 April 2014, 1: 30-47.
- Kivisto, Peter.** *Religion and Immigration: Migrant Faiths in North America and Western Europe (Immigration & Society).* Cambridge, UK: Polity, 2014.
- Kivisto, Peter.** "The Transnational Practices of Finnish Immigrants." *Finnish in the United States: A History of Settlement, Dissent, and Integration.* Ed. Auvo Kostiainen. East Lansing, MI: Michigan State University Press, 2014.

- Kivisto, Peter.** "Reframing Immigrant Religious Organizations and Practices." *Nordic Journal of Religion and Society* 27 2014, 1: 1-17.
- Kivisto, Peter.** "The Rise and Uncertain Future of the True Finns: An Outsider's Reflections." *Research on Finnish Society* 7 2014: 65-70.
- Kivisto, Peter,** and Johanna Leinonen. "Ambiguous Identity: Finnish Americans and the Race Question." *Finns in the United States: A History of Settlement, Dissent, and Integration*. Ed. Auvo Kostiainen. Michigan: Michigan State University Press, 2014.
- Kivisto, Peter,** and Samir Dasgupta. *Post Modernism in a Global Perspective*. ed. University of Kalyani, West Bengal: Sage India, 2014.
- Kivisto, Peter,** and Thomas Faist. "Citizenship Theories and Migration." *An Introduction to Immigrant Incorporation Studies: European Perspectives*. Amsterdam, Holland: Amsterdam University Press, 2014.
- Klein, Stephen.** "The Ladies at the Tea Party: (Re-) Construction of Conservative Feminine Persona in Political Rhetoric." Presented at the National Communication Association's 100th Annual Convention, Chicago, IL, 20-23 Nov. 2014.
- Leech, Brian.** "Boom, Bust, and the Berkeley Pit: How insiders and Outsiders Viewed the Mining Landscape of Butte, Montana." *IA: The Journal of the Society for Industrial Archaeology* 37 2014, 1 & 2: 153-170.
- Magalhaes, Mariano.** "Channeling Women's Voices: The Role of the *Secrretaria de Políticas para as Mulheres in Brazil*." Presented at the 68th Annual conference of the New York State Political Science Association, New York, April 2014.
- Mahn, Jason,** and Grace Koleczek. "What Intentional Christian Communities Can Teach the Church." *Word & World* 34 Spring 2014, 2: 178-187.
- Marklevits, Farah.** "Branch Season." *The Carolina Quarterly* 64.1 Summer 2014: 60.
- Marklevits, Farah.** "Dust Season." *The Carolina Quarterly* 64.1 Summer 2014: 62.
- Martin, Cassandra.** "Costs of female mating behavior in the variable field cricket, *Gryllus lineaticeps*." Presented at the University of Nebraska-Lincoln, Lincoln, NB, 18 Apr. 2014.
- Mason, Kelvin.** "Kids Design Glass." Presented at the Figge Art Museum, Davenport, IA, 1-7 May 2014.
- Mier-Cruz, Benjamin.** "The Talented Mr. Salander: On Millennium Queerness & Patricia Highsmith's Ripley Series." Presented at The Yale Conference on Baltic & Scandinavian Studies, New Haven, CT, 15 Mar. 2014.
- Morris, Dan.** "Reason and Emotion in the Ethics of Self-Restraint: A Critique of Reinhold Niebuhr." *Journal of Religious Ethics* 42 July 2014, 3: 495-515.
- Morse, Margaret.** "The Material Body/Culture of Early Modern Domestic Religion." Presented at the Southeastern College Art Conference, Sarasota, FL, October 2014.
- Nagase, Mari.** "'Truly, they are a lady's words': Ema Saiko and the Construction of an Authentic Voice in Late Edo Period *Kanshi*." *Japanese Language and Literature* 48 2014, 2: 279-305.
- Nodulman, Jessica.** "Diversity and the Online Classroom." Presented at the National Communication Association's 100th Annual Convention, Chicago, IL, 20-23 Nov. 2014.
- Perreau, Ann.** Peer-reviewed session based on "Evaluating Active Learning Strategies in an Undergraduate Audiology Course." Presented at the 2014 American Speech-Language-Hearing Association Convention, Orlando, FL, 20-22 Nov. 2014.
- Quinn, Megan.** Lead artist. Lloyd's Trek. Schweibert Park, Rock Island, IL. 2014.
- Schroeder, Jared.** "Focusing on How Rather than on Whom: Constructing a Process-Based Framework for Interpreting the Press Clause in the Network-Society Era." *Communication Law and Policy* 19 Oct. 2014, 4: 209-562.
- Schroeder, Jared,** and Adam Saffer. "Practitioners as Publishers: Examining Public Relations Practitioners' Claims for Legal Protections Traditionally Associated with the Institutional Press." Presented at the Law and Policy Division at the Association for Education in Journalism and Mass Communication's Southeast Colloquium, University of Florida, Gainesville, FL, 22 Mar. 2014.
- Schultz, Jessica M.,** and Scott Stular. "Interpersonal Psychotherapy: A Culturally Adaptive Treatment." *Psychotherapy in Australia* 21 2014, 1: 12-20.
- Schultz, Jessica M.,** Melinda Mull, and Jayne Rose. "Childhood in Challenging Circumstances: Integrating Local Service Learning with Global Study." Presented at the Association for Colleges & Universities Global Learning Conference, Minneapolis, MN, Oct. 2014.
- Shussheim-Anderson, Rowen.** "Butterflyte." Displayed in *From Lausanne To Beijing: 8th International Fiber Art Biennale*, Wuzhen, Tongxiang City, Zhejiang Province, China, 28-29 Sept. 2014.
- Shussheim-Anderson, Rowen.** Works displayed in *Craftforms*, a juried exhibition at the Wayne Art Center, Wayne, PA, 2014.
- Shussheim-Anderson, Rowen.** Works displayed in "Local Threads." Presented at the Figge Art Museum, Davenport, IA, May 2014.
- Shussheim-Anderson, Rowen.** "Fiberart International: Extraordinary Exhibition of Contemporary Fiber Art." *Fiber Art Now* 2014. <http://fiberartnow.net/fiberart-international-extraordinary-exhibition-contemporary-fiber-art/#.VS16P9FOXow>.
- Shussheim-Anderson, Rowen, Vicki R. Phipps, Angela Dieffenbach, Peter Xiao, Corrine Smith, Trew Schriefer, Kelvin Mason, Megan Quinn** and **Chris Mortenson.** Works displayed in "Artists First." Presented at the Figge Art Museum, Davenport, IA, Sept. 2014 – Jan. 2015.
- Stewart, Eric C.** "The Social and Historical Context of the Greco-Roman World." *Anselm Companion to the Bible*. Ed. Corinne L. Carvalho. Winona, MN: Anselm Academic Press, 2014: 255-267.
- Stonedahl, Forrest,** and William Rand. "When Does Simulated Data Match Real Data? Comparing Model Calibration Functions using Genetic Algorithms." *Advances in Computational Social Science: Fourth World Congress*. Ed. C. Tai, S. Chen, T. Ternao, & R. Yamamoto. Japan: Springer Verlag, 2014: 297-313.
- Stonedahl, Forrest,** and Cara Monical. "Static vs. Dynamic Populations in Genetic Algorithms for Coloring a Dynamic Graph." Presented at the International Conference on Genetic and Evolutionary Computation, Vancouver, B.C., Canada, 16 July 2014.
- Stonedahl, Forrest,** Katie Borg, and Susa Stonedahl. "Unique Solvability of Certain Grid-based Logic Puzzles." Presented at the Sixth Annual Illinois-Iowa ACS Undergraduate Research Conference, Davenport, IA, 15 Nov. 2014.
- Street, Lucas A.** "Drowned Lands." *Fifth Wednesday Journal* 14 Spring, 2014: 194.
- Strunk, Christopher.** "Ligas de pertenencia: Fútbol boliviano, practicas de ciudadanía, y espacios comunitarios en Washington D.C." [Leagues of belonging: Bolivian fútbol, citizenship practices, and community spaces in Washington D.C.]. "Otro fútbol: Ritualidad, organización institucional y competencia en un siglo de fútbol popular en Bolivia (1896-2014) ed Juliane Muller and Mario Murillo (Plural Editores), Bolivia, 2014.

- Strunk, Christopher.** "Understanding Roots of Child Migration." *Dispatch-Argus*. Quad-Cities Online: Editorials. 26 Aug. 2014. http://www.qconline.com/editorials/understanding-roots-of-child-migration-crisis/article_ea1c68d3-3322-5b7c-a82b-d8274e3e0ae1.html.
- Strunk, Christopher.** "We are always thinking of our community: Bolivian hometown associations, networks of reciprocity, and indigeneity in Washington D.C." *Journal of Ethnic and Migration Studies* 40 2014, 11: 1697-1715.
- Strunk, Christopher,** and Helga Leitner. "Assembling Insurgent Citizenship: Immigrant Advocacy Struggles in the Washington D.C. Metropolitan Area." *Urban Geography* 35 2014, 7 943-964.
- Strunk, Christopher,** and Helga Leitner. "Spaces of Immigrant Advocacy and Liberal Democratic Citizenship." *Annals of the Association of American Geography* (Migration Special Issue) 104 Mar. 2014, 2: 348-356.
- Strunk, Christopher.** "Incorporacion migrante y politicas locales de inmigracin en los Quad Cities de Iowa y Illinois [Migrant incorporation and local immigration policies in the Quad Cities of Iowa and Illinois]." Presented at the Primer Congreso Internacional de la Red Acciones Locales en Materia Migratoria, Puebla, Mexico, 15, Dec. 2014.
- Tschopp, Douglas.** "Developing and Maintaining Web Content: An Idea Generating Workshop." Presented at the HighEdWeb Conference, Portland, OR, 19-22 Oct. 2014.
- van Howe, James.** "Noise-eating amplifier for repetitive signals." Presented at the IEEE Photonics Conference, San Diego, CA, 15 Oct. 2014.
- van Howe, James,** and Reza Maram, Ming Li, & Jose Azana. "Noiseless intensity amplification of repetitive signals by coherent addition using the temporal Talbot effect." *Nature Communications*. 16 Oct. 2014 <http://www.nature.com/naturecommunications>.
- Xiao, Peter T.** "37th Annual Rock Island Fine Arts Exhibition." Augustana Art Gallery, Rock Island, IL; juror: Mary M. Kirn, 2014.
- Xiao, Peter T.** "Artists First: College Art Faculty of the Quad Cities." Figge Art Museum; jurors: Leslie Bell and Pamela White, Davenport, IA, 2014.
- Xiao, Peter T.** "Augustana Art Faculty Group Exhibition." Art Museum, Augustana College, Rock Island, IL, 2014.
- Xiao, Peter T.** "Collision and Confluence: Chinese-American Art Faculty Exhibition and Symposium." Asian Cultural Center, NY, NY; jurors: Chen Lusheng, Deputy Director of National Museum of China; Laurel Reuters, Founding Director and Chief Curator of the North Dakota Museum of Art; Zezong Mao, Curator at the Asian Cultural Center, New York, Manhattan Art Gallery, 2014.
- Yaschur, Carolyn,** and Renita Coleman. "Why be a journalist? Students' motivations and role conceptions in the new age of journalism." Presented at the Association for Education in Journalism and Mass Communication, Montreal, Canada, 8 Aug. 2014.
- Zargar, Cyrus Ali.** "Satiric Traversals in the Comedy of Mehran Modiri: Space, Irony, and National Allegory on Iranian Television." Gayatri Devi and Najat Rahman, eds. *Humor and Middle Eastern Cinema*. Detroit, MI: Wayne State University Press, 2014: 79-103.
- Zargar, Cyrus Ali.** "Bird from the Garden of Meanings: Soul and Speech in IA's Reading of Jesus." Presented at the Muhyiddin Ibn 'Arabi Society, Berkeley, CA, 15 Nov. 2014.
- Zargar, Cyrus Ali.** "Revealing Revisions: Fayd al-Kashani's Four Versions of al-Kalimat al-Maknuna." *Iranian Studies* 47 2014, 2: 1-22.
- Zargar, Cyrus Ali.** "Water." *Islamic Images and Ideas: Essays on Sacred Symbolism*. Ed. John Andrew Morrow. Jefferson, NC: McFarland, 2014: 112-123.
- Zemek, Michael.** Guest Conductor, Mixed Choir and Treble Choir at the Interstate 8 Honor Choral Festival, Lisle, IL, Nov. 2014.
- Zemek, Michael.** Guest Conductor, Senior High Youth Choir Festival at St. Mary's Lutheran Church, Kenosha, WI, 2014.
- Zemek, Michael.** "Starting a Youth Choir in Your Church." *ChorTeach*. Fall 2014.

STUDENT HONORS AND AWARDS

(FIRST-YEARS, SOPHOMORES AND JUNIORS)

ACCOUNTING

Deere and Company Scholarship

Andrew Beveroth

McGladrey Scholarship

Matthew Stevens

Arthur Andersen Scholarship

Alexander Fluehr

John Swiderski

Madeline Voss

S. James Galley Scholarship

Amie Badgett

Michael Baugh

Jessica Campbell

Siming Cheng

Amy Even

Alexander Fluehr

Quinn Foley

Jordan Gibb

Lauren Goggin

Jacob Hallendorff

Andrea Hult

Mitchell Lewis

Trong Nguyen

Stephanie Pereiro

Devon Peterson

Layne Porembski

Andrew Smith

Madeline Voss

Jiajun Wei

Katherine Ziegler

KPMG Peat Marwick Scholarship

Justin Fox

ASIAN LANGUAGES

Outstanding Academic Achievement Award in Asian Languages

Benjamin McKay (Chinese)

Nathan Walloch (Chinese)

BIOLOGY

Anderson Swedo Science Education Endowed Scholarship

Isaac Schmied

BUSINESS ADMINISTRATION

Harold E. and Louise Lage Swanson Scholarship

Rachel Akmakjian

Andrew Beveroth

Jessica Campbell

Siming Cheng

Justin Fox

Stephanie Hess

Jamie Hochmuth

Jenna Hofmann

Andrea Hult

Allison Kotleba

Sarah Oberg

Devon Peterson

Kylie Siebert

Jacob Soukup

Mikaela Steinberg

Matthew Stevens

Madeline Voss

Katherine Ziegler

Thomas C. Montgomery Memorial Scholarship

Amie Badgett

Arielle Bloemer

Austin Burant

Christina Clewlow

Michael Daniels

Amy Even

Sarah Funke

Lauren Goggin

Jacob Hallendorff

Trang Ho

Jake Lewis

Mitchell Lewis

Trong Nguyen

Patrycja Pierkarczyk

Kevin Seelander

Thomas Walker

Jiajun Wei

CHEMISTRY

Albert L. Eliason Chemistry Endowed Scholarship

Stephen Dempsey

CLASSICS

Eta Sigma Phi Honorees National Classics Honor Society

Kevin Barbian

Sarah Cepeda

Diana Cleveland

Bethany Hayenga

Ethan Koch

Steven Mondloch

Nathan Payne

COMMUNICATION STUDIES

Chad Meyer Endowed Scholarship

Ryan Silvola

MULTIMEDIA JOURNALISM AND MASS COMMUNICATION

Illinois College Press Association Awards

Katherine Canning

Chloe Dale

Shylee Garrett

Jacob Genens

Jeremy Lensing

Ian Magnuson

Carolyn Muller

Linnea Ritchie

Ryan Silvola

ECONOMICS

Bruce R. Milligan Endowed Scholarship

Hans Hunecke

Edgar Leon

Liya Ma

Justin MacNaught

Kristin Molloy

Long Nguyen

Matthew Stevens

Aubrey Waddick

Thomas C. Montgomery Memorial Scholarship

Patrick Conniff

Michael Daniels

Sarah Funke

Daniel Hamilton

Michael Jacobs

Minh Le

Michael Partyka

Luke Robinson

Trevor Rogers

Honorary Award for Achievement in Economics

Harald Olsson

GEOLOGY

Black Hawk Gem and Mineral Club Merit Scholarship

Allison Patch

GERMAN AND SCANDINAVIAN STUDIES

Delta Phi Alpha, the German Honorary Society

Olivia Covert-Proctor

Elizabeth Gehrmann

MATHEMATICS AND COMPUTER SCIENCE***Pi Mu Epsilon, National Honorary Mathematics Society***

Andrea McNally
 Long Nguyen
 Jeffrey Prior
 Sophia Ries
 Keith Sands
 Luke Toppel

SOCIOLOGY, ANTHROPOLOGY AND SOCIAL WELFARE***Mike Kirn Book Award***

Nathan Payne

THEATRE ARTS***Judith Katz Memorial Theatre Scholarship Award***

Megan Hammerer
 Jacob Kilburg
 Keenan Odenkirk

FREISTAT STUDENT LANGUAGE AWARD

Liam Baldwin (Seville, Spain)
 Olivia Covert-Proctor (Regensburg, Germany)
 Lauren Davis (Ecuador)
 Josie Fioretto (Ecuador)
 Raven Hoffman (Seville, Spain)
 Karina Huerta (Seville, Spain)
 Rebecca Knapper (Uppsala, Sweden)
 Gage Meyers (Kobe, Japan)
 Samantha Murad (Dijon, France)
 Dhaneesha Pahathkumbura (Uppsala, Sweden)
 Patrycja Piekarczyk (Eichstatt, Germany)
 Layne Porembski (Dijon, France)
 Sylvia Salinas (Seville, Spain)
 Brady Welvaert (Dijon, France)

FREISTAT CENTER PEACE AND JUSTICE STUDIES AWARD

Rebecca Brosch

FREISTAT CENTER STUDENT-FACULTY FELLOWS ON-SITE UNDERGRADUATE RESEARCH

Casey Janko
 (faculty mentor, Kathy Jakielski)
 Alexandra Jones
 (faculty mentor, Kathy Jakielski)
 Chelsey Peterson
 (faculty mentor, Kathy Jakielski)

OMICRON DELTA KAPPA***Juniors***

Dena Baity
 Lauren Baker
 Andrew Beveroth
 Kelsey Binggeli
 Marie Brzezinski
 Julie Cullotta
 Sarah Dantino
 Somer Druszowski
 Stefanie Hamaker
 Mackenzie Logan
 Alexandra Nusz
 Amy Perino
 Lizeth Tamayo
 Natalie Tomerlin
 Daniel Walls
 John Whitson

ORDER OF OMEGA

Victoria Beale
 Adam Bernardi
 Kelsey Binggeli
 Michelle Dempster
 Somer Druszowski
 Justin Fox
 Jenna Jansen
 Sarah Lafferty
 Annie Martines
 Amanda Narkis
 Chelsey Peterson
 Kristen Santoro
 Matthew Stevens
 Natalie Tomerlin
 Chelsea Wallaert

CLASS HONORS***(4.0 GPA)***

Juniors
 Devon Peterson

INDEX OF PRESENTERS

A

Ebony Allen 20, 26
 Laura Ames 3
 Bradley Anderson 28
 Hanna Anderson 13, 27
 Daniel Andon 39
 Kathleen Andruch 16
 Ericka Arias 25
 Caleb Arnold-Ivey 27
 Chelsea Ashland 13

B

Dr. Jacob Bancks 13
 Elizabeth Bartha 8
 Leah Baumgart 7, 17
 Laura Becker 37
 Lauren Becker 9
 Grant Bell 34
 Rachel Bennett 14
 Tyler Benson 14
 Sarah Berndt 27, 30
 Allen Bertsche 9
 Evan Blodgett 34
 Kristina Bowen 16
 Joseph Bullaro 10
 Molly Bunkofske 8
 Brittany Burk 39
 Dr. Jennifer Burnham 14
 McKenna Burns 5
 Kayla Bushey 15

C

Dr. Marco Cabrera Geserick 26
 Courtney Camlin 27
 Mara Cantrell-Paulson 14
 Dr. Lee Carkner 23
 Leslie Carranza 11
 Barrie Chileen 3
 Melissa Chiodo 30
 Sebastien Chomereau-Lamotte 30
 Mariaelisa Claros 27
 Dr. Todd Cleveland 26
 Morgan Conley 7, 38
 Kaitlyn Cook 10
 Colleen Cooper 27
 Maggie Cooper 30
 Dr. Daniel Corts 19
 Jeff Coussens 24
 Elizabeth Cowan 37
 Rowan Crow 18
 Connor Cummings 19
 Kelsey Cunningham 14
 Kaitlyn Czerwonka 14, 20

D

John D'Aversa 14
 Erienne Davis 3
 Margaret Del Vecchio 14
 Dr. John Delaney 24
 August Marlana DeLuna 20
 Elizabeth DeMay 30
 Kavita Deodhar 24
 Michael Dimock 9
 Catherine Dinklenburg 40
 Julie Dombai 8
 Stephanie Drago 6
 Somer Druszkowski 15
 Allison Dzik 15

E

Edvard Edsgard 3
 Dr. Mike Egan 8, 15
 Michael Ems 37
 Courtney English 25
 Thomas Enke 12
 Roberto Espinosa 21
 Karlie Everett 27

F

Brian Fanning 27
 Elizabeth Farwell 14
 Marcela Fitzpatrick 27, 39
 Sarah Frachey 30
 Dr. Margaret France 24
 Sara Fraterrigo 28
 Katrina Friedrich 38, 39
 Sarah Funke 10

G

Kasia Galica 9
 Shylee Garrett 10
 Brad Gaskin 6
 Dr. Scott Gehler 24, 27
 Suzanne Geisler 7
 Jessica Gerdisch 22
 Brenna German 27
 Maissie Giacovelli 22
 Alexander Gilmore 26
 Rukmini Girish 20, 25
 Dr. Catherine Carter Goebel 30
 Selena Gonzalez 27
 Dr. Rupa Gordon 27
 Kevin Gordy 31
 Nick Gornick 16
 Alex Gorusch 10
 Christina Gosiewski 27
 Kevin Gosiewski 36
 Kelcie Great 23

H

Christopher Hager 4
 Claire Hammer 27
 Cody Hansen 16
 Ethan Harrod 27
 Zeke Hartman 16
 Amanda Hassler 24
 Meredith Hays 29
 Brooke Heibel 7, 38
 Dr. Randy Hengst 8
 Colin Hepner 14
 Daniel Herrera 38
 Abigail Heuer 8
 Benjamin Hodges 8, 17
 Kevin Hodgman 28
 Mark Hoffmann 6
 Alaina Hofmann 25
 Kiran Hundal 16, 22

I

Hussam Ibrahim 24

J

Courtney Jankowski 5
 Jillian Jespersen 8
 Kelly Johlie 14
 Cody Johnson 35
 Emily Johnson 8
 Carmen Jones 28
 Victoria Jones 14
 Mecca Joseph 27
 Brian Jozwiak 20
 Karen Juco 6

K

Kelsey Kammerzelt 31
 Leslie Kane 19
 Victoria Karnes 27
 Hadley Karrick 10
 Dr. Brian Katz 24
 Patricia Kautenberger 21
 Colten Keenan 38
 Breanne Kelley 37
 Katherine Kelly 14
 Sophia Kelly 12
 Alyssa Kendell 8
 Vanessa Kirk 15
 Dr. Claire Kovacs 27

L

Korrie Lamarre 27

Luke Lampo 36

Paul Landahl 24

William Lardner 36

Dr. Troy Larson 8

Steve Lavelle 38

Patrick Lenz 23

Emma Levich 24

Paul Wellan 14

Bethany Lewin 18

Shannon Leyva 20

Stephanie Loconsole 31

Ruby Loera 27, 39

Jon Losen 8

M

Christian Mantbriand 21

Kori Marcum 19

Darien Marion-Burton 10

Kelvin Mason 13

Bailey McChesney 27

Taylor McGinnis 13

Abigail Mehnert 24, 25

Alexander Meier 18

Chelsea Mentado 14

Brandon Metoyer 34

Fallon Meyer 37

Tim Michaels 37

Alex Miller 27, 39

Gary Miller 14

Sara Mitchell 27

Nathan Mittelbrun 20

Amanda Moore 9

Audrey Moore 27, 28, 30

Sarah Moore 25

N

Jesse Nagelberg 29

Amanda Narkis 8

Ashley Newell 27

Melanie Nicholls 27

Jessica Nodulman 27

Mariana Noga 19

Eleanor Nolan 27

Christine Nyquist 18

O

Katie O'Brien 8

Alex Odenkirk 22

Helen Offerman 24

Elizabeth O'Hara 24

Allison O'Hern 15

Kelsey Olive 14

Mayu Oya 38, 39

P

Urid Pacillas 23

Nadia Panasky 9

Michelle Panter 25

Emily Pavlik 22

Stephanie Pedersen 34

Anissa Pemberton 21

Megan Petersohn 5, 39

Callie Peterson 12

Kayla Pilar Fernandez 32

Ryan Plath 35

Lisa Pohlman-Zordan 38

Dr. Jennifer Popple 19

Rebecca Post 24

Leesa Potthoff 20

Elyzia Powers 15, 38, 39

Kellen Price 22

Padraic Price 20

Q

Kristina Quinlivan 14

R

Nikki Radloff 29

Lily Ramos 25

Danielle Rankovich 14

Sarah Reidel 20

Dr. Michael Reisner 3

Margaret Richardson 3, 17

Nick Riojas 3

Jessa Rizzo 3

Kimberly Roark 27

Kerry Robbins 18

Taylor Roebke 27

Tyler Rolfe 10

Joseph Romero 35

Jose Rosalez 37

Cammie Ruhl 27

S

Whitney Sampleton 5

Nowlan Savage 11

Cody Schmitt 11

Kristin Schoenecker 5

Diana Schultz 4, 37

Dr. Jessica Schultz 19

Mark Sieber 24

Peter Siepiora 4

Suzy Silberschmidt 24

Ryan Silvola 27

Marckus Simmons 38

Dr. Jane Simonsen 26

Yvonne Skrzypczak 37

Emma Smith 24

Shannon Smith 14

Lorraine Stamberger 20

Megan Steinhoff 38

Madison Stoneman 14

Dr. Heidi Storl 26

Dr. Shara Stough 19, 27

Emma Stough 9

Alicia Strtak 12, 27

Dr. Christopher Strunk 3, 23

Shelby Stuparits 11

Kelly Sullivan 3, 19

Jeremy Sundberg 6

Hannah Sundwall 10

Alyssa Szymanski 37

T

Ashish Tadepalli 3

Micaela Terronez 17

Jenna Teson 31

Caitlin Thom 24

Bonnie Thornton 3

Nicole Tijerina 11

Natalie Tomerlin 10

Jacob Torres 4, 37

Anthony TouVelle 3

Brian Trausch 35

Gabe Tucker 10

Samantha Turner 4

U

Shelbi Ummel 29

Ryan Urbanski 36

V

Jennifer Vanderpool 25

W

Aubrey Waddick 4, 21

Ayanna Wade 27

Alison Wagner 31

Kristin Walden 9

Mathew Weah 25

Benjamin Wells 14

Eliza Wells 11

Nicole Wilcek 32

Kaitlyn Williams 3

Ethan Wojcinski 8

Ashley Wolfe 7

Y

Stephanie Yelton 14

Z

Karly Zucker 27



2015-16
Symposium Days

THURS., SEPT. 17: **Perspective(s)**

WED., JAN. 20: **Social Justice**

WED., MAY 4: **Celebration of Learning**

