



Student Academic Conference Abstract Books

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2018

## 20th Annual Andrew B. Conteh Student Academic Conference

Minnesota State University Moorhead

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### Recommended Citation

Minnesota State University Moorhead, "20th Annual Andrew B. Conteh Student Academic Conference" (2018). *Student Academic Conference Abstract Books*. 20.  
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SAC  
2018



*Tuesday, April 17, 2018*

MINNESOTA STATE UNIVERSITY MOORHEAD PRESENTS

*20<sup>th</sup> Annual*

**ANDREW B. CONTEH**

# Student Academic Conference

*Student-Centered Education through Mentoring  
Student Research and Creative Activities*



*Since 1999*



MINNESOTA STATE UNIVERSITY  
**MOORHEAD.**

A member of the Minnesota State system



**Greetings:**

**A**mong all the programs and activities that make Minnesota State University Moorhead a place of transformation where students achieve more than they believed possible, the Student Academic Conference stands out as a particularly special and transformative experience. In many ways, the conference exemplifies the qualities that make MSUM truly unique: our legacy as a university where the faculty-student relationship is at the heart of teaching and learning; our commitment to providing students with opportunities to explore and discover their passions; and the transformation that occurs when students discover their reason for being and feel prepared to pursue their purpose.

The projects being presented today represent countless hours of planning, problem solving, experimentation, investigation, innovation, and preparation. Behind every project there is not only a motivated student but also a dedicated faculty mentor. It is the mentoring relationship—whether in the laboratory, the field, the theatre, the studio, the computer lab, or the classroom—that makes these applied learning opportunities truly transformative.

Congratulations to the students who are presenting at the 2018 conference and the faculty mentors who worked side-by-side with those students to make their presentations possible. And thank you for exemplifying the spirit of exploration and discovery that enriches us all.

Sincerely,

A handwritten signature in black ink that reads "Anne Blackhurst". The signature is fluid and cursive, with a long horizontal line extending to the right.

Anne Blackhurst  
*President*

### Conference Participants and Attendees:

**C**ongratulations to everyone participating in the Andrew B. Conteh Student Academic Conference. This event is one of the highlights of the academic year for the MSUM community. The projects being presented today are evidence of student/faculty engagement and MSUM's commitment to providing our students with opportunities for collaboration, experiential learning, and active participation in the learning process.

As I read the titles of the presentations for this year's conference, I am overwhelmed by the nearly 300 scholarly works that our students and faculty have prepared during this academic year. The wide variety of topics is also very impressive—artificial intelligence, social media, cancer research, sleep deprivation, autism spectrum disorder, diversity and inclusion, healthcare, fraud, and the 2017 eclipse—this is only a small sample of the exciting and timely topics being presented at this year's conference. Your works contribute to and are examples of how MSUM addresses its strategic anchors: Student Achievement, Diversity and Inclusion, and Community Development.

Students, I applaud you on your preparation and hard work and I look forward with enthusiasm to listening to your presentations. Your work reflects critical thinking, problem solving, exploration and discovery necessary for engaged learning. Faculty, I thank you for your mentorship and collaboration with your students. Without your contributions this conference would not exist.

The Andrew B. Conteh Student Academic Conference is truly a transformative experience for every participant, including those of us who attend and have the unique privilege of being able to witness our promise to transform lives through exceptional student/faculty engagement.

Again, congratulations and I wish you well.



Marsha Weber  
*Interim Vice President of Academic Affairs*





# 20<sup>th</sup> Annual **ANDREW B. CONTEH** **Student Academic Conference**

Tuesday, April 17, 2018

<b>8:30 a.m.</b>	Featured Graduate Student Lecturers <b>Whitney Balmer</b> <b>Ashley Schurr</b> <i>CMU 121</i>
<b>9:00 a.m.</b>	Poster Set-Up—Registration/Information Table <i>CMU Main Lounge</i>
<b>9:40 a.m.</b>	Presentation Session 1 and Poster Session 1 <i>Various CMU Rooms and Poster Display Area</i>
<b>11:00 a.m.</b>	Seating for the Luncheon <i>CMU Ballroom</i>
<b>11:10 a.m.</b>	Luncheon Starts <i>CMU Ballroom</i>
<b>11:50 a.m.</b>	Welcome and Keynote Speaker <b>Marsha Weber, Interim Vice President of Academic Affairs</b> <b>Robert Haas, Vice President in Treasury</b> <b>Quantitative Analytics at US Bancorp</b>
<b>12:40 p.m.</b>	Presentation Session 2 and Poster Session 2 <i>Various CMU Rooms and Poster Display Area</i>
<b>2:00 p.m.</b>	Break
<b>2:10 p.m.</b>	Presentation



## Robert Haas

### 2009 Economics

**M**SUM alumnus Robert Haas graduated from Minnesota State University Moorhead in 2009 with a degree in economics and a minor in mathematics. He later went on to work at US Bancorp in September of 2012 after graduating from Colorado State University with an MA in economics. In February 2018, he was promoted to his current position as Vice President in Treasury Quantitative Analytics and currently manages a group of five quantitative analysts.

Since the beginning of his career with US Bancorp, he has been tasked to take on large, complex, econometric modeling projects

from the ground up. These projects required a tremendous amount of individual effort on his part and required him to work cross functionally among many different groups inside and outside of US Bancorp.

“No matter what the task, I step up to the challenge and deliver my best on a daily basis,” said Haas. “I take time to consider other points of view knowing everyone I encounter has knowledge I can leverage to make our organization better. I give credit where credit is due, admit past mistakes, and strive to always learn on a daily basis.”

Through his life journey, Haas has learned the importance and every day applications of MSUM’s core values of grit, humility, and heart. In recent years, Haas has even had the opportunity to give back to MSUM students by inviting a group of them to the US Bancorp corporate headquarters in Minneapolis, where he gets to explain what he does and tell the story of how he ended up where he is today.

“To date, that was one of the most rewarding experiences I have had both personally and professionally,” said Haas of speaking with MSUM students.

After his experience in the field and learning what it takes to advance in his career, Haas shares his secret to success.

“Never give up,” he said. “Always keep pushing and striving to be the best you can be. Remember those that helped you along the way, and inspire others to do the same.”



# Kiley Fee & McKenzie Zacha

*A Dual Process of Decision-Making in Our Choices: The Role of Cognition and Emotion in Everyday Life*

> Kiley Fee

**Major:** Business Administration with an Emphasis in Marketing  
**Year in School:** Junior  
**Hometown:** Norwalk, Iowa



> McKenzie Zacha

**Major:** Business Administration with a Double Emphasis in Marketing and International Business  
**Year in School:** Junior  
**Hometown:** Mandan, North Dakota

> By Leah Schmitt

**L**eft or right? Soup or salad? Name brand or off brand? MSUM or other?

As humans, we make more than 35,000 decisions a day, but have you ever thought about what influences you to make those decisions? That is exactly what Business Administration students Kiley Fee and McKenzie Zacha wanted to find out.

In their study, Fee and Zacha looked at consumers' behavior in a simple, everyday setting like the grocery store, and compared it to students' decisions to attend Minnesota State University Moorhead.

To conduct their study, they used keyword research to determine which elements of a decision were most important to people. For grocery store decisions, they looked at how price, time and product characteristics affected people's decisions, and for MSUM decisions, they looked at how price, education and campus characteristics affected people's decisions. They then placed the keywords they found on a cognitive and emotional scale to see how the decisions were made.

"We discovered that similar dimensions were present in both types of decision making," said Zacha. "However, how people approached each dimension was vastly different on an emotional and cognitive scale with each type of decision."

In the end, they learned making a decision in the grocery store is more cognitive than emotional, and making the decision to attend MSUM was more emotional than cognitive.

Fee and Zacha were intrigued by the idea of learning more about consumer behavior and were excited they had the opportunity to learn more about it in a hands-on setting.

"It's one thing to learn something from a textbook, but being able to apply the knowledge out of the classroom is extremely beneficial," said Fee.

**"It's one thing to learn something from a textbook, but being able to apply the knowledge out of the classroom is extremely beneficial."**

– Kiley Fee

# Stacy Meester

Major: Psychology

Year in School: Graduate Student    Hometown: Hillsboro, North Dakota

## *Using Mindfulness and Yoga with First Graders to Increase Engagement*



> By Leah Schmitt

**K**ids are funny, energetic, brilliant...and they just can't sit still.

Studies show engaging students academically early on has a strong link to students' outcomes later in their schooling and their lives. But how do you get them to sit still long enough to engage them?

Stacy Meester, a graduate student in the School Psychology program, decided to explore ways of increasing students' engagement through mindfulness and yoga. Every day, for 10 weeks, a class of first graders spent five minutes in the morning and the afternoon, doing simple breathing and yoga exercises. Three students were monitored throughout the study to see if the exercises helped increase their engagement in the classroom. Only three students were monitored to ensure effective data was recorded.

"I know it's difficult to find the time right now in the classroom... it's full. There's a lot of learning going on," said Meester. "So taking only five minutes to do some mindfulness and see that engagement increase is a really positive thing."

Meester found for two of the three students, the intervention helped increase their engagement in the classroom. At the end of the day, Meester and her

cooperating teacher recorded on a range from 1 to 10 how well they thought each student was engaged that day; one meaning 10 percent engaged and 10 meaning 100 percent engaged. The goal was to see students' engagement reach an average of 80 percent.

Overall, Meester saw an increase in engagement throughout the entire classroom, not just in her subjects. While the success of the entire class wasn't tracked as a whole, she saw a shift in how students behaved.

"They went from being disruptive and getting up within a couple of minutes, to sitting for 20 to 25 minutes for a story. It was amazing to see. The whole class had a calmness to it," said Meester.

**"They went from being disruptive and getting up within a couple of minutes, to sitting for 20 to 25 minutes for a story. It was amazing to see. The whole class had a calmness to it."**

– Stacy Meester





# Andrea Hanson

Major: Counseling and Student Affairs – Clinical Mental Health  
Year in School: Graduate Student Hometown: Fargo, North Dakota

*Mental Health Awareness for College Athletics*



> By Leah Schmitt

**M**ost students face a dreadful to-do list— tests, papers, group projects and part-time jobs. The list keeps growing, and on top of the list are the personal demands and stressors that come with everyday life.

Student-athletes deal with all of this in addition to a vigorous workout schedule, practice and game days. It's enough to overwhelm anyone and may lead to mental health issues. However, student-athletes face barriers that prevent them from getting the help they need, namely not having a staff member specifically trained to help them navigate these troubling times.

Andrea Hanson, a graduate student in Counseling and Student Affairs, played college tennis for four years and is now an assistant tennis coach at MSUM. Expanding her knowledge of mental illnesses through her schooling has opened her eyes to the struggles student-athletes face every day, such as anxiety and depression.

Hanson created a training manual designed for coaches, athletic trainers and other athletic department personnel. The manual includes information on mental health issues that impact student-athletes and the symptoms and behaviors they may exhibit, such as excessive worry, fatigue or irritability.

The training demonstrates strategies on how to speak with student-athletes about seeking mental health services and provides case examples and role play scenarios to help coaches practice the skills gained through the training.

“After completing a review of current research, I wanted to do more to promote mental health to collegiate student-athletes,” said Hanson of creating the manual. “Through this research, I am better able to understand the stressors they experience and the barriers they face to seeking mental health services.”

Knowing what mental health issues college athletes face, Hanson is better able to talk to her athletes about these issues and find them help when needed.

“My passion for mental health has allowed me to gain a more complete picture of collegiate athletics and the role I play as an assistant coach,” Hanson said.

**“Through this research, I am better able to understand the stressors they experience and the barriers they face to seeking mental health services.”**

– Andrea Hanson

# Jenna Kalthoff

Major: Finance      Minor: Mathematics and Statistics  
Year in School: Junior      Hometown: Richmond, Minnesota

## *Earnings Restatements and Crisis Communication Patterns*



> By Leah Schmitt

**I**n the era of “fake news” and “alternative facts,” effective and accurate communication is key. Companies are learning this the hard way and are trying to find the best method to communicate with their stockholders about earnings restatements.

“An earnings restatement is used to correct errors in past earnings statements,” said Finance student Jenna Kalthoff. “Earnings restatements typically cause a negative market reaction, so firms have started using different communication and release strategies.”

The purpose of this study is to find the optimal technique, or techniques, companies should use when issuing earnings restatements. To do this, multiple earnings restatements will be gathered, and an event-study will be conducted to analyze the impact of the restatement.

While this study is still in the data-collection process, Kalthoff is optimistic about the results it will yield.

“The results will either help company executives minimize the negative market reaction of restatements through communication strategies

or will show that media strategy is minimally effective,” said Kalthoff.

Kalthoff worked with Dr. Thomas Hanson, an MSUM Finance professor, to conduct this study and other studies in the past. She enjoys the personal mentoring she has found at MSUM and the hands-on experience MSUM offers.

“Research has made me more aware of my skills and has improved my communication skills,” said Kalthoff. “I have been very fortunate to work with exceptional people through the research process. They all deserve a million thanks!”

**“Research has made me more aware of my skills and has improved my communication skills.”**

– Jenna Kalthoff



# Joshua Noennig

Major: Economics  
Year in School: Junior    Hometown: Sabin, Minnesota

*Males and Undergraduate Education: The Rest of the Story*



> By Leah Schmitt

**I**n the last 50 years, female undergraduate enrollment has increased substantially while enrollment of male students has stayed roughly the same. Females now make up around 60 percent of undergraduates, while men only make up 40 percent. Why?

Joshua Noennig, a junior majoring in Economics, wanted to find the answer. In his study, Noennig looks at the gender enrollment gap in U.S. undergraduate enrollment in four-year institutions from 1962 to the present.

“This study looks at how cost and benefits influence male enrollment, and highlights specifically how post-high school graduation alternatives for males attending college impact their decision,” said Noennig.

To conduct his study, Noennig used data from the National Center for Education Statistics and the U.S. Census Bureau to see how the costs and benefits influence men who are recent high school graduates. He focused on a few key variables, which include college premium (the difference between the salary of someone with a college degree and a high school degree), average marriage age, and a military draft variable. He is also

looking at the affect male-dominated trade professions may have on low male enrollment.

Through his extensive research, Noennig hoped to explain why men have not seen increased undergraduate enrollment during a time when women’s undergraduate enrollment has skyrocketed, and he may have found an answer.

“I found that men have been joining the workforce or military due to the benefits (such as money and freedom) being immediate, compared to the long-term benefits of college,” said Noennig. “It appears that the perceived benefits of attending college for men are decreasing, or that they do not want to invest in education for four years before seeing the payoff down the road.”

**“I found that men have been joining the workforce or military due to the benefits being immediate, compared to the long-term benefits of college.”**

– Joshua Noennig



# PRESENTATION LISTINGS

## ANTHROPOLOGY AND EARTH SCIENCE

*Drinking on the Red: The Archaeology of Historic Moorhead Saloons*

**Michael Betsinger**

Advisor: George Holley

*What are you Deaf? The Portrayal of Deaf Culture in Cinema*

**Carra Strader**

Advisor: Erik Gooding

*What We See Under the Ground at Chief Looking's Village*

**Amy Woodruff and Carly DeSanto**

Advisor: Rinita Dalan

*Animal Bones and Their Story in the Prehistory of the Buffalo River Regional Science Center*

**Christine Lidenberg and Maxwell Sojka**

Advisor: George Holley

*Understanding Societal Relations Through Landmark Etymology*

**Michael Pittman**

Advisor: Erik Gooding

*Experimental Measurements of CoO Activities in Silicate Melts*

**Elias Holte and Elizabeth Dougherty**

Advisor: Russell Colson

*The People of Fargo-Moorhead*

**Kassandra Sofferan**

Advisor: Bruce Roberts

*A Timeline of Disciplines: The Greek-Hellenic Period*

**Joshua Kes**

Advisor: Paul Sando

## BIOSCIENCES

*Decreasing Risk Factors of Pancreatic Cancer by Maintaining a Healthy Gut Microbiome*

**Rachel Krause, Allison Raddatz, and Agim Bekteshi**

Advisor: Adam Stocker

*Effect of Exogenous Melatonin and Chronic Sleep Deprivation on IL-8 Secretion in Danio rerio*

**Alison Barkhymer and Adedoyinsola Adepitan**

Advisors: Sumali Pandey and Brian Wisenden

*Edge Effects and Costa Rican Conservation*

**Gregory Anderson, Laura Wessberg, and Jonah Vigilant**

Advisors: Brian Wisenden

*Palm Oil Trees of Costa Rica*

**Savanna Hohenstein, Molly O'Brien, and Alex Hendrickson**

Advisors: Brian Wisenden and Christopher Merkord

*Antlions of Costa Rica: How They Function & Their Importance to the Surrounding Ecosystem*

**Allison Raddatz, Casey Coombs, and Rebecca Volkert**

Advisor: Brian Wisenden

*Distribution of Abies religiosa*

**Laura Wessberg**

Advisor: Christopher Merkord

*Cetacean Strandings Along the Gulf of Mexico from 2002-2009*

**Savanna Hohenstein**

Advisor: Christopher Merkord

*Occurrence of Green Sea Turtles over 13 years (2005-2017)*

**Molly O'Brien**

Advisor: Christopher Merkord

*Using Cerebral Blood Volume and Plasma Volume to Examine Different Variables*

**Emily Waletzko**

Advisor: Christopher Merkord

*Data on Visual Center Mutations in Mice brains*

**Logan Spooner**

Advisor: Christopher Merkord

*Fish Species and Size Preference Between Seal Breeds*

**Emma Gooding**

Advisor: Christopher Merkord

*An Investigation of the Bio-chemical Constituents and Potential Allelopathic and Insecticidal Efficacy of Wormwood (Artemisia absinthium) in Aquaponics*

**Isaac Heiser**

Advisor: Andrew Marry

*Do painted turtles captured at trapping "hot spots" reflect the population structure of the larger turtle population?*

**Joseph O'Flanagan and Dylan Leach**

Advisor: Donna Stockrahm

*Do Trapping "Hotspots" For Western Painted Turtles Remain The Same From Year-To-Year In Clay County, MN?*

**Megan Gates, Casey Coombs, and Cristiano Ricci**

Advisor: Donna Stockrahm



## PRESENTATION LISTINGS

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*Population control in urban Canada geese in Moorhead, Minnesota: what are the findings after eight Years?*

**Rachel Rusten and Eli Croaker**

Advisor: Donna Stockrahm

*Impacts of third-year restoration processes on small mammals in a western tallgrass prairie in Clay County, Minnesota*

**Sarah Sanderson and Miranda Sater**

Advisor: Donna Stockrahm

*Impacts of third-year restoration processes on small mammals in a western tallgrass prairie in Clay County, Minnesota*

**Miranda Sater, Sarah Sanderson, Rachel Rusten, Dylan Leach, and Breanna Huynh**

Advisor: Donna Stockrahm

*The Interplay of Politics and Conservation in Costa Rica*

**Mark Lueders and Timothy Schmiesing**

Advisors: Brian Wisenden and Christopher Merkord

*Small mammal occurrences captured by game cameras in fertilized versus unfertilized grassland plots*

**Breanna Huynh and Tiffany Grieger**

Advisors: Alison Wallace and Donna Stockrahm

*Pollinators of New Zealand*

**Ethan Gerbig**

Advisor: Christopher Merkord

*Behavioral Effects of Neuroanatomical Differences in Mice*

**Anne Holzgrove**

Advisor: Christopher Merkord

*Woody Encroachment on Bluestem Prairies in Cass County*

**Rachel Rusten**

Advisor: Christopher Merkord

*Influenza Occurrences in the United States Since 1997*

**Chelsey Ranum**

Advisor: Christopher Merkord

*The frequency of Lyme disease in Minnesota over-time*

**Devante Delbrune**

Advisor: Christopher Merkord

*Multivariate Comparison of Fish in McLeod County Lakes*

**Mark Lueders**

Advisor: Christopher Merkord

*West Nile Virus Prevalence in the United States*

**Hannah Demmer**

Advisor: Christopher Merkord

*Cortisol Dependent Learning in Zebrafish, Danio rerio*

**Mikaela Hanson and Joseph Clayton**

Advisors: Brian Wisenden, Shawn Garrett, and Christopher Merkord

*Change in preterm births in Minnesota*

**Chimaobi Okakpu**

Advisor: Christopher Merkord

*Minnesota Child Health Insurance Discrepancies Among Demographics*

**Hayden Swartz**

Advisor: Christopher Merkord

*Analysis of *Eidolon helvum* data for Patterns in Virus Seropositivity*

**Alison Barkhymer**

Advisor: Christopher Merkord

*Population Distribution for the Western Meadowlark (*Sturnella neglecta*) in the Fargo-Moorhead area*

**Casey Coombs**

Advisor: Christopher Merkord

*Population distribution patterns of Song Sparrow (*Melospiza melodia*) in Minnesota*

**Erhiga Ekhamu**

Advisor: Christopher Merkord

*The Role of Gut Microbiota in the Progression of Pancreatic Cancer*

**Jenna Wegscheid, Brianna Conner, and Whitney Welder**

Advisor: Adam Stocker

*Field Verification of Chondroitin Sulfate*

**Mikaela Hanson and Whitney Shegrud**

Advisor: Brian Wisenden

*Shoaling Decreases the Risk of Parasitism*

**Mikaela Hanson and Whitney Shegrud**

Advisor: Brian Wisenden

*Use of game cameras to document urban and rural animal species in the Fargo (ND)-Moorhead (MN) area*

**Eberardo Barragan and Evan Carlson**

Advisor: Donna Stockrahm

*Marine Lab!*

**Savanna Hohenstein, Stephanie Mongulla, Mikaela Hanson, Gregory Anderson, Philip Larson, and Elias Holte**

Advisor: Brian Wisenden

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*Ecotourism Effects on the Economy, Ecology, and Local Populace of Costa Rica*

**Nicholas Miller, Breanna Huynh, and Yaa Pokua Osei Sarpong**

Advisor: Brian Wisenden

*Population patterns of small mammals at varied altitudes in three mountains in southwestern China*

**Breanna Huynh**

Advisor: Christopher Merkord

*Analysis of Geese Population and Egg Count at American Crystal Sugar*

**Brittney Kakac**

Advisor: Christopher Merkord

*Are The Number of CDC Reported Lyme Disease Cases Increasing in Minnesota?*

**Christian Shoger**

Advisor: Christopher Merkord

*Effects of Aspergillus fumigatus exposure on Whole genome DNA methylation in human bronchial epithelium: interpretation of data*

**Nellie Campbell**

Advisor: Sumali Pandey

*Environmental factors relating to fossil occurrences of pleistocene mammals*

**Connor Juelfs**

Advisor: Christopher Merkord

*Non-invasive Methods of Heart Rate Monitoring of Small Fish*

**Brittney Kakac**

Advisors: Ananda Shastri and Brian Wisenden

*Insulin and Physical Activity's Effects on the Brain: The Possible Underlying Mechanism on Alzheimer's Disease*

**Josie Ova, Korey Lee, Asma Mohammed, and Babylon Alrobaei**

Advisor: Adam Stocker

*Functional Characteristics and Genomic Sequencing of Antarctic Environmental Isolates*

**Amanda Kemper**

Advisor: Michelle Tigges

*Predation of Granular Poison Frogs*

**Jeffery Stith**

Advisor: Christopher Merkord

*Markers for Aspergillus fumigatus in Murine in vivo Respiratory Infections*

**Nicholas Miller**

Advisor: Sumali Pandey

*Proteomic changes of Sulfolobus islandicus during SIRV2 infection*

**Daniel Skoglund**

Advisor: Christopher Merkord

*Identification of Emx2 targets using Shotgun Proteomics: A comparative analysis*

**Josette Velazquez**

Advisors: Adam Stocker and Michelle Tigges

*Effect of Nutrient Additions on Vegetation on Prairie Plants*

**Amina Kovacevic**

Advisor: Christopher Merkord

*The Effect of Costa Rican Invasive Species on their Environment*

**Paul Ofstedal and Amina Kovacevic**

Advisor: Brian Wisenden

*Elucidating the Complimentary Action of Transcription Factors in Brain Area Patterning*

**Kervens Accilien, Najma Abdullahi, and Caitlyn Schaffer**

Advisor: Adam Stocker

*Effect of Deoxynivalenol on DNA methylation in human epithelial cells*

**Whitney Shegrud and Matthew Lindquist**

Advisor: Sumali Pandey

*AMPK Fluctuations Disrupt TGF- $\beta$  pathway in Hypoplastic Left Heart Syndrome*

**Kervens Accilien, Whitney Shegrud, Hannah Demmer, and Josette Velazquez**

Advisor: Adam Stocker

*The Role of Lactobacillus Strain as a Probiotic and Helicobacter Pylori as a Risk Factor in Pancreatic Cancer*

**Puja Hamal, Zhila Ghafour, and Lucas Wynne**

Advisor: Adam Stocker

*Investigating the mycobiome present in the lower respiratory tract of mice*

**Whitney Welder and Jacob Tesch**

Advisor: Sumali Pandey

*Parental Germ-Cell DNA Mutation from Environmental Toxicity in Causation of Hypoplastic Left Heart Syndrome*

**Nikolas Newville and Kiana Ruch**

Advisor: Adam Stocker

*The Effect of EMX2 Deletion on Area patterning with new Foxg1-IRES-Cre Technology*

**Puja Hamal and Josette Velazquez**

Advisor: Adam Stocker



# PRESENTATION LISTINGS

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*The Biological Effect of Endocrine Disrupting Chemicals (EDCs) on Aquatic Vertebrates*

**Casey Johnshoy, Akira Shastri, Levi Tiemann, Spencer Haag, Alhaji Njai, and Garrett Hennen**

Advisors: Patricia Wisenden and Ellen Brisch

*The Biological Effect of Endocrine Disrupting Chemicals (EDCs) on Aquatic Vertebrates*

**Casey Johnshoy and Levi Tiemann**

Advisor: Patricia Wisenden

*Plant Tissue Cultures*

**Laura Wessberg**

Advisor: Chris Chastain

*Organ Systems: A 5E Model Science Lesson*

**Gregory Anderson**

Advisor: Alison Wallace

*Thalamic and Behavioural Repercussions Following Cortex-Specific Deletion of Emx2*

**Stefanie Akhidenor, Akira Shastri, Eberardo Barragan, Devante Delbrune, and Lychen Ben**

Advisor: Adam Stocker

*Sensory Map Transfer to the Neocortex Relies on Pre-targeted Ordering of Thalamic Axons*

**Stefanie Akhidenor and Akira Shastri**

Advisor: Adam Stocker

*Using functional genomics for exploring the role of the PPK regulatory protein in C4 photosynthesis*

**Chaney Jambor and Alexandra Macgregor**

Advisor: Chris Chastain

*Assessing activation state of PPK, a C4 photosynthesis enzyme, in maize leaf bundle-sheath cell chloroplasts*

**Alexandra Macgregor, Chaney Jambor, and Ashley Rezachek**

Advisor: Chris Chastain

*Antibiotic-Producing Bacteria Found In Soil*

**Katarina Domitrovich**

Advisor: Sumali Pandey

*A literature review of cross-sectional surveys assessing the Knowledge, Attitudes and Practices related to antibiotic resistance amongst people*

**Michael Reeves and Oluwatunminu Anwoju**

Advisor: Sumali Pandey

*Analysis of A. fumigatus induced methylation using the RnBeads software in R*

**Jesse Nelson**

Advisor: Christopher Merkord

*Deoxynivalenol (DON) Induced Change in IgA Concentration Through Intranasal Exposure*

**Jesse Nelson**

Advisor: Sumali Pandey

*Biology: A 5E Model Science Lesson*

**Emmelyn King**

Advisor: Alison Wallace

*Proinflammatory response in human epithelial cells exposed to Deoxynivalenol*

**Matthew Vene and Mandi Markwardt**

Advisor: Sumali Pandey

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## BUSINESS

*Olympus Corporation Fraud*

**Laura Benson**

Advisor: Sheri Erickson

*Bernard Madoff's Ponzi Scheme*

**Kristi Engquist**

Advisor: Sheri Erickson

*ZZZZ Best*

**Heather Strese**

Advisor: Sheri Erickson

*Lehman Brothers Fraud*

**Tina Scheidecker**

Advisor: Sheri Erickson

*GAAP violation of Dollar General and IBM*

**Naimanjin Erdenebileg**

Advisor: Sheri Erickson

*HealthSouth: Inside Corporate Fraud*

**Kevin Laluyan**

Advisor: Sheri Erickson

*Earnings Restatements and Crisis Communication Patterns*

**Jenna Kalthoff**

Advisor: Thomas Hanson

*Fraud at Waste Management*

**Joshua Young**

Advisor: Sheri Erickson

*Risk Parity Portfolio Strategies*

**Cameron DuBore**

Advisor: Thomas Hanson

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*U.S. Tax Reform and The Economic Growth*

**Mona Barhouma**

Advisor: Kim Mollberg

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## CHEMISTRY

*Synthesis of C<sub>4</sub>-Chlorination Analogs of Antipyrine*

**Bishnu Chhantyal**

Advisor: Craig Jasperse

*Evaluating dissolved organic matter profiles of the Red River between winter and spring*

**Andrea Reynolds**

Advisor: Michelle Tigges

*Adaptations of non-pigmented Antarctic bacteria subjected to UV radiation*

**Andrea Reynolds and Shine Erdene Davaakhuu**

Advisor: Michelle Tigges

*Synthesis of N<sub>4</sub>-Amide-Substituted Analogs*

**Ansumana Sanyang**

Advisor: Craig Jasperse

*Analysis of Membrane Lipid and Protein Composition of Antarctic Bacteria CG9\_1 Grown at Different Temperatures*

**Kervens Accilien, Ansumana Sanyang, and Sara Gebre**

Advisor: Michelle Tigges

*Melting and Dissolving: A 5E Model Science Lesson*

**Christian Larson**

Advisor: Alison Wallace

*Chemical Detection of Endocrine Disrupting Compounds in Red River Water 2018*

**Casey Johnshoy, Nikolas Newville, Sara Gebre, Arsema Merid Mekonnen, and Jenna Wegscheid**

Advisor: Shawn Garrett

*Inhibition of pigmentation in antractic bacteria isolate cg 9\_6 cells via mutagenesis*

**Chimaobi Okakpu, Matthew Lindquist, and Stefanie Akhidenor**

Advisor: Michelle Tigges

*Biofilm production in Antarctic bacteria under different stressors*

**Victoria Gilbert and Nellie Campbell**

Advisor: Michelle Tigges

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## COMMUNICATION AND JOURNALISM

*The Correlation Between Sports and Drug Use*

**Miguel Ybarra, Saad Janjua, Nickolas Kuzas, Alexander Swanson, and John Miller**

Advisor: Jason Anderson

*Swipe Right: The Role of Sexes and Motivational Differences in Tinder Participation*

**Ellie Krupich, Rachel Barrett, Caitlin Fisher, Rachel LaForce, and Justin Duinck**

Advisor: Jason Anderson

*Perception of coaching style: A self report study of positively vs. negatively framed feedback*

**Thomas Mulvaney and Demetrius Carr**

Advisor: Jason Anderson

*Relational Framing Theory and President Donald Trump's Tweets*

**Chelsie Beyl, Kaitlyn Nolte, Spencer Imsande, Mindi Baker, and Christina Overmoe**

Advisor: Jason Anderson

*Social Media and Anxiety*

**Trevor Larson**

Advisor: Jason Anderson

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## COMPUTER SCIENCE AND INFORMATION SYSTEMS

*Content Management Systems: Data Security*

**Mariah Kinneberg and Annika Greaney**

Advisor: Yurii Boreisha

*Object Detection Using TensorFlow*

**Suman Koirala and Manish Dhakal**

Advisor: Yurii Boreisha

*Artificial Intelligence in Gaming*

**Mark Arinaitwe, Nitesh Shankat, and Oluwadamilola Ajayi**

Advisor: Yurii Boreisha

*Adopting SCAN Methodology to Rearrange Images for More Efficient Lossless Compression*

**Charles Crandall**

Advisor: Yurii Boreisha

*Machine Learning: Comparison, Evaluation, Implementation and testing of facial recognition system Techniques*

**Melat Tekie and Dawit Tekie**

Advisor: Yurii Boreisha





# PRESENTATION LISTINGS

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*Building Artificial Intelligence(AI) Assistant using Python*

**Priyanka Aryal, Suman Pradhan, and Ritesh K.C.**

Advisor: Yurii Boreisha

*Cryptocurrency Performance Prediction Using Convolutional Neural Networks*

**Michael Hajostek**

Advisor: Yurii Boreisha

*Analyzing the Benefits of RESTful Architecture over WS-\* in Utilizing a Web API for a Mobile Application*

**HouPha Vang, Michael Drawz, and Theodore Altobel**

Advisor: Yurii Boreisha

*Digitalization of Hendrix Clinic*

**Fuki Musa, Chidubem Enebechi, and Kelsie Bork**

Advisor: Yurii Boreisha

*Development of an Agricultural Decision Aid Incorporating Geographic Information Systems and Web Mapping*

**Dustin Ernst**

Advisor: Yurii Boreisha

*Python Blockchain Analysis*

**Edomias Kassa and Tochi Opara**

Advisor: Yurii Boreisha

*Video Game QA Testing*

**Christopher Leonard**

Advisor: Yurii Boreisha

*Internet of Things @ Home Automation*

**Ashutosh Sigdel, Prerak Silwal, and Saurav GC**

Advisor: Yurii Boreisha

*Steganography with JavaScript*

**Dakota Parks, Zakaria Lambert, and Dakota Larson**

Advisor: Yurii Boreisha

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## COUNSELING AND STUDENT AFFAIRS

*Mental Health Awareness for College Athletics*

**Andrea Hanson**

Advisor: Ken Messina

*Worry Warriors: A School-Based Counseling Small Group for Elementary-Aged Children with Anxiety*

**Emily Ojanen**

Advisor: Taryn Akgul

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## DIVERSITY AND INCLUSION

*Diversity and Inclusion: An Exclusive Model?*

**Katelyn Weber and Kari Barnick**

Advisor: Olivia Matthews

*The Impact of Diversity and Inclusion*

**Brianna Bradley, Emily King, and Araceli Spottedthunder**

Advisor: Olivia Matthews

*PID: What they didn't cover*

**Hannah Andrusko-Starks, Kiana Kent, and Katherine Krotzer**

Advisor: Olivia Matthews

*Diversity in Organizations*

**Annika Sidhu**

Advisor: Olivia Matthews

*The Importance of Intersectionality at Academic Conferences*

**William Lewandowski, Kari Barnick, Dylin Van Elsberg, and Jayce Branden**

Advisor: Olivia Matthews

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## EDUCATION

*The Importance of Reading Aloud to Young Children*

**Shelby Mack**

Advisor: Sung Ok Park

*Reading Development: Cultures Perspective*

**McKayla Schindler and Khadija Awes**

Advisor: Sung Ok Park

*How Teachers Effectivly Monitor Childrens Play*

**Crystal Allen and Eleanor Biederman**

Advisor: Sung Ok Park

*Why Messy Play is Important*

**Tessa Halvorson**

Advisor: Sung Ok Park

*Emergent Writing Progression in a Three-Year-Old Child*

**Madison Radel**

Advisor: Marci Glessner

*Policy Analysis of Wisconsin's Nondiscrimination Guidelines for Athletics*

**Emily Block**

Advisor: Abigail Bremer

*The Impact of Title I Schools Today*

**Chelby Ward**

Advisor: Keri DeSutter

*Technology and Multimedia in Early Childhood Education C*

**Sydney Dahlgren, Alyssa Fredrick, and Jena Bellefeuille**

Advisor: Sung Ok Park

*Sexual Education in Minnesota: A Policy Analysis of MN State Statute 121A.23*

**Emmelyn King**

Advisor: Abigail Bremer

*Special Education Curriculum*

**Haley Bradford and Kayleigh Knutson**

Advisor: Sung Ok Park

*Creating A Caring Community of Learners*

**Rachel Buttweiler and Faith Mergen**

Advisor: Sung Ok Park

*The Importance of Play*

**Kassandra Scherping and Madison Abar**

Advisor: Sung Ok Park

*Properties of Matter: A 5E Model Science Lesson*

**Tyler Eidsness**

Advisor: Alison Wallace

*Assistive Technology in Special Education*

**Breanna Sittig, Josie Kubiak, and Katelyn Stall**

Advisor: Sung Ok Park

*Burnout Rates in Special Education*

**Olivia Smith and Marisa Kittleson**

Advisor: Sung Ok Park

*Brain Development in Early Childhood*

**Stacy Opp**

Advisor: Sung Ok Park

*Wave properties*

**Joel Myhre**

Advisor: Alison Wallace

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## ECONOMICS, LAW AND POLITICS

*Disentangling the motivation for consuming self-improvement products: An analysis of guilt*

**Melat Assefa**

Advisor: Tonya Hansen

*Contraceptive use by young American women: The untold story*

**Samantha Carlson**

Advisors: Tonya Hansen and Oscar Flores-Ibarra

*Child Abuse and Religion*

**Kira Dodson**

Advisor: Barbara Headrick

*Metadata Collection Under the USA PATRIOT ACT and USA FREEDOM ACT*

**Marie Ziegelski**

Advisor: Barbara Headrick

*The Affordable Care Act Examined*

**Madeline Stoker**

Advisor: Barbara Headrick

*Prisoner Access to Educational Opportunities in Minnesota Penal System*

**Kalen Day**

Advisor: Barbara Headrick

*Are current healthcare systems working? A comparison of alternative solutions to a common problem*

**Antonia Hylton**

Advisor: Tonya Hansen

*Border wall*

**Jason Peterson**

Advisor: Barbara Headrick

*The Indian Caste System: Modernization and Significance in Contemporary Indian Politics*

**Rahil Pereira**

Advisor: Paul Kramer

*Clean Power Plan*

**Grant Geffre**

Advisor: Barbara Headrick

*Deferred Action for Childhood Arrivals*

**Khalid Nakelly**

Advisor: Barbara Headrick

*How valuable is higher education? The impact of an educated population on economic indicators*

**Trent Tucker**

Advisor: Tonya Hansen

*The opioid epidemic: The correlation between opioid prescription rates and drug overdose deaths*

**Caio Tiosso**

Advisor: Tonya Hansen

*Deferred Action for Childhood Arrivals*

**Carly Syverson**

Advisor: Barbara Headrick

*Evaluating impacts of public transit on employment levels in urban areas*

**Zachary Lund**

Advisor: Tonya Hansen

*An Examination of a Travel Ban*

**Conner Enlow**

Advisor: Barbara Headrick



# PRESENTATION LISTINGS

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*The Mexico-USA Border Wall*

**Ahmed Issa**

Advisor: Barbara Headrick

*Wage and Employment Impacts of Immigration on Native-Born Americans*

**Michael Aaron**

Advisor: Tonya Hansen

*Males and undergraduate education: The rest of the story*

**Joshua Noennig**

Advisors: Tonya Hansen and Oscar Flores-Ibarra

*Airbnb in a new economy: Insights from Minneapolis*

**Paul Tharalson**

Advisor: Tonya Hansen

*Travel Ban Policy*

**Ojochugbo Agamah**

Advisor: Barbara Headrick

*H.R.2494 - Eliminate, Neutralize, and Disrupt Wildlife Trafficking Act of 2016*

**Michael Richard**

Advisor: Barbara Headrick

*H.R. 4474: Public Transportation Security*

**Adam Schick**

Advisor: Barbara Headrick

*The Dickey Amendment*

**Zoe Roelfsema-Hummel**

Advisor: Barbara Headrick

*Policy Research of Marijuana*

**Mohamed Gardi**

Advisor: Barbara Headrick

*An economic analysis of the college "premium"*

**Derek Christianson**

Advisor: Tonya Hansen

*DACA*

**Alaura Williams**

Advisor: Barbara Headrick

*Drawing the Lines*

**Adrian Tabares**

Advisor: Barbara Headrick

*Every Student Succeeds Act*

**William Hagen**

Advisor: Barbara Headrick

*Interdict Act*

**Austin Southers**

Advisor: Barbara Headrick

*Female Contraceptives in the Affordable Care Act*

**Elle Jorgenson**

Advisor: Barbara Headrick

*Border Wall Policy*

**Thomas Manninen**

Advisor: Barbara Headrick

*Origins of DACA*

**Faisal Suleiman**

Advisor: Barbara Headrick

*Federal Education Policy in the United States*

**Emily Hintz**

Advisor: Barbara Headrick

*Buffer-zones Law*

**Paul Wicht**

Advisor: Barbara Headrick

*U.S foreign policy toward China*

**Deeq Awnur**

Advisor: Barbara Headrick

*Concealed Carry in Fargo-Moorhead*

**Daniel Andersen**

Advisor: Barbara Headrick

*Economic health by state: Does politics matter?*

**Michael Dorso**

Advisor: Tonya Hansen

*Background Checks for Purchasing Firearms*

**John Thoemke**

Advisor: Barbara Headrick

*Population Growth and Labor Supply. The Nigerian Economy towards 2050*

**Arnold Ikpat**

Advisor: Tonya Hansen

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## ENGLISH

*Opportunities and Obstacles: A Phenomenological Examination of Attitudes Towards Multilingualism*

**Linnea Bader**

Advisor: Elizabeth Kirchoff

*Tata Mola*

**Mbella Nganje**

Advisor: Brian Smith

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## GRADUATE STUDIES

*Using Mindfulness and Yoga with First Graders to Increase Engagement*

**Stacy Meester**

Advisors: Lisa Stewart and Peg Potter

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*Bilingual early intervention: Are speech-language pathologists prepared?*

**Leslie Ugoretz**

Advisor: Nancy Paul

*The 2017 Tax Revision*

**Emma Swenson**

Advisor: Mohamed Elbannan

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## HEALTH AND PHYSICAL EDUCATION

*A Literature Review: Non-Contact Anterior Cruciate Ligament Injury*

**Patrick Dilly**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*A Literature Review: Youth Head Trauma Involving Concussions*

**Cody Freng**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*A Literature Review: Shoulder Impingement Syndrome*

**Serena Roehl**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*A Literature Review: Single Sport Specialization*

**Jae Borgen**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*A Literature Review: Neck Strength in Athletes*

**Zachery Stene**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*A Literature Review: The Effectiveness of RICE*

**Ricquel Ramsbottom**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*Bacterial, Viral and Fungal Infections in the Athlete: A Literature Review*

**Sydney Joos**

Advisors: Jay Albrecht and Dawn Hammerschmidt

*Musculoskeletal Disorders: A Closer Look at Spinal Deformities, Bursitis, & Tendonitis*

**Ashley Breitzman**

Advisor: Wendy Frappier

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## MARKETING AND COMMUNICATIONS

*Picture Perfect: The effects of social media on self-esteem and body image*

**Ashlee Hilzendeger, Grace Schuler, Jon Lehman, and Sophie Wood**

Advisor: Jason Anderson

*Relationship satisfaction and partner similarity: A Comparison Between The Big Five and The Myers Briggs Theory*

**Theodora Amuah**

Advisor: Jason Anderson

*Marketing Plan for the Nonprofit Organization*

**Brandin Haaland**

Advisor: Ruth Lumb

*A Dual Process of Decision-making in Our Choices: The Role of Cognition and Emotion in Everyday Life*

**McKenzie Zacha and Kiley Fee**

Advisor: Wooyang Kim

*Business Plan*

**Ephrata Haile**

Advisors: Peter Geib and Jane Pettinger

*AWP Conference Conclusions*

**Laura Grimm, Anna Landsverk, Cameron Schulz, and Mikaila Norman**

Advisor: Nathan Rundquist

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## MATHEMATICS

*Predictive Policing: Using Math to Predict and Prevent Crimes*

**Jacob Pawlowski**

Advisor: Ashok Aryal

*Positivity and Slope Limiters for Lax-Wendroff Discontinuous Galerkin Methods*

**Stefan Nelson**

Advisors: Adam Goyt and Justin James

*Freize Patterns and Translation Symmetry in Euclidean Geometry*

**Alicia Swenson, Samantha Swenson, and Zachery Stene**

Advisor: Justin James

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## MEDIA ARTS AND DESIGN

*Godzilla: The Tragic Terror*

**Vincent Dorazio**

Advisor: Anthony Adah

*Architecture Throughout Japanese History Displayed Through Cinema*

**Kali Shaw**

Advisor: Anthony Adah



# PRESENTATION LISTINGS

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*Sami Representation in Cinema*

**Alexander Wiezorek**

Advisor: Anthony Adah

*Nollywood Cinema's Representation of Women*

**Luke Steichen**

Advisor: Anthony Adah

*Graphic Design Trends in History and Its Impact on Website Layouts*

**Tara Kennedy**

Advisor: Alexandria Fogarty

*The Brazilian Jeitinho as a Form to Represent the National Culture in Movies*

**Rodrigo Costa**

Advisor: Anthony Adah

*Values in the Wuxia Films of Tsui Hark*

**Dominique Trowbridge**

Advisor: Anthony Adah

*Maiden or the Motherhood: Female Independence in Mexican Cinema*

**Regan Meyer**

Advisor: Anthony Adah

*I'll Have What She's Having*

**Brianna Overstreet, Vincent Dorazio, Alexander Wiezorek, Sierra Moeykens, and Karli Ring**

Advisor: Anthony Adah

*My Girlfriend's Führer*

**Sierra Obioha, Zoe Esser, Madeline Malone, Laura Alexander, and Finn Harrison**

Advisor: Anthony Adah

*Test Face*

**Kali Shaw, Ryan Green, Cody Greff, Alex Samek, Chancey Plagman, and Luke Steichen**

Advisor: Anthony Adah

*Buddies and Bad Guys: Ideologically Resolving 1980's Problems with Action*

**Aaron Beck**

Advisor: Anthony Adah

*Cinema Novo and its Influence from French New Wave Cinema*

**Chancey Plagman**

Advisor: Anthony Adah

*Lost Identity in American Indian Cinema*

**Malia Bantz**

Advisor: Anthony Adah

*A Study into Women's Role in South Korean Cinema*

**Benjamin Ledinsky**

Advisor: Anthony Adah

*Gorillaz and the Liberation of Meaning*

**Zachary Howatt**

Advisor: Anthony Adah

*GODZILLA! The Topicality of the Godzilla Franchise From 1954 to Today*

**Samuel Lacasse**

Advisor: Anthony Adah

*Portrayal of Communication Disorders and the Motion Picture Industry?*

**Sarah Hagler**

Advisor: Anthony Adah

*Christopher Doyle - Chinese Cinema*

**Justus Carlson**

Advisor: Anthony Adah

*Getting Lucky: a Gangster/Romantic Comedy Hybrid*

**Sewon Hwang, Dillan Schmiedt, Avery Thaler, Samantha Smoley, and Peyton Krump**

Advisor: Anthony Adah

*Understanding Genre: Applying Gangster Narrative in 'Treadface'*

**Ryan Moorman, Aaron Beck, Jordan Kilian, Tyler Donnay, and Robin Gerke**

Advisor: Anthony Adah

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## NURSING AND HEALTHCARE LEADERSHIP

*Aging In Correctional Custody: Policies and Ethical Issues*

**Auna Lee, Diane Poppenga, Caitlin McArthur, and Lindsay Brower**

Advisor: Jitendra Singh

*Health Information Technology And Efforts To Improve Quality Of Care*

**Matida Manneh, Ngyma Sherpa, Abigail Yeboah, and Laura Kjolhaug**

Advisor: Jitendra Singh

*Evaluating Readiness of Clinical and Health Administration Students towards Interprofessional Education*

**Tony Santos and Justin Boldt**

Advisor: Jitendra Singh

*Quality Improvements*

**Justin Boldt and Tony Santos**

Advisor: Jitendra Singh

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## PHILOSOPHY

*Dr. Yancy's Life and Death Decision: A Case Study*

**Jessica Dallman**

Advisor: Marilea Bramer

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## PHYSICS AND ASTRONOMY

*Examining the 2017 Eclipse*

**Andrew Louwagie Gordon**

Advisor: Juan Cabanela

*Examining Two Methods of Recording  
Electrocardiograms*

**Andrew Louwagie Gordon, Luke  
Himmelspach, and Samuel Holen**

Advisors: Ananda Shastri and Linda  
Winkler

*Determining the Heart's Electric Dipole  
Moment*

**Jane Glanzer and Laura Maixner**

Advisors: Ananda Shastri and Linda  
Winkler

*Calculating Galactic Distances Through  
Supernovae Light Curve Analysis*

**Jane Glanzer**

Advisor: Matthew Craig

*Sharing the Universe*

**Boston Heaford and Melissa Foley**

Advisor: Sara Schultz

NMR

**Sakurako Tani and Salim Abdou Thomas**

Advisor: Ananda Shastri

*The Yarkovsky Effect: Modeling the Effect  
of Solar Radiation on Asteroid Orbits*

**Andrew Block**

Advisor: Matthew Craig

*Asteroid Detection and Photometry in  
Python*

**Andrew Block**

Advisor: Juan Cabanela

*Zebrafish ECG Signal Amplification*

**Paige Meyer**

Advisor: Ananda Shastri

*Sodium NMR*

**Salim Abdou Thomas and Sakurako Tani**

Advisor: Ananda Shastri

*Variable Stars in the Field of TrES-3b*

**Erin Aadland**

Advisor: Matthew Craig

*VERITAS Observatory's Ring Artifacts at  
Low Elevations*

**Erin Aadland**

Advisor: Juan Cabanela

*BinCat: a Catalog of Nearby Binary Stars  
with Tools for Calculating Light-Leakage  
for Direct Imaging Missions*

**Elias Holte**

Advisor: Matthew Craig

*Reaching Wider Audiences through  
Planetariums*

**Elizabeth Dougherty**

Advisor: Sara Schultz

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## PSYCHOLOGY

*Reducing Anxiety in a 12-Year-Old Boy  
Using Coping Cat Cognitive-Behavioral  
Strategies*

**Whitney Balmer**

Advisors: Lisa Stewart and Peg Potter

*Increasing Hand-Raising In The  
Classroom Using Good Behavior Game  
With Mystery Motivator*

**Andrea Mayer**

Advisors: Peg Potter and Mary Dosch

*Motivational Self-Graphing to Increase  
Oral Reading Fluency*

**Bailey Hansen**

Advisors: Mary Dosch and Peg Potter

*Using a PRESS Repeated Reading  
Intervention to Increase the Oral Reading  
Fluency of Three Fifth Grade Students*

**Jenna Jacobson**

Advisor: Lisa Stewart

*The Effects of Male Fitness Related Media  
on the Body Dissatisfaction of Females*

**Britni Joubert**

Advisor: Gary Nickell

*Personality Types and Attractiveness*

**Katelyn Weber**

Advisor: Christine Malone

*The Relationship between Helping  
Attitudes and Personality Factors*

**Emily Pekas and Marissa Hudoba**

Advisor: Gary Nickell

*Performance on Stereotypical Male and  
Female Video Games as a Function of  
Gender and Gender Role Identification*

**Ivana Arrington**

Advisor: Rochelle Bergstrom

*Grade Retention: Exploring the Prevalence  
of the Topic in Course Content and the  
Attitudes of Preservice Teachers and  
Teacher Educators*

**Jenny Pearson**

Advisor: Peg Potter

*Changes in High Frequency Spelling  
Vocabulary*

**Grant Fodness**

Advisor: Peg Potter



# PRESENTATION LISTINGS

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*Availability and Desire for Platonic Touch in Men*

**Emily Gault and Monica Vega**

Advisor: Sarah Edwards

*The Moderating Influence of Openness to Experience on Support for Political Candidates*

**Kory Engelstad**

Advisor: Rochelle Bergstrom

*How PTSD symptoms Impact Post-Partum Functioning*

**Shundiin Green**

Advisor: Sarah Edwards

*Personality and Task Completion*

**Brianna Nelson**

Advisor: Christine Malone

*Perceived Intelligence of Persons Who Stutter: Does Gender Matter?*

**Madison Lynch**

Advisor: Rochelle Bergstrom

*Perceived Intelligence of Persons Who Stutter: Do Different Modes of Presentation Impact State Anxiety?*

**Madison Lynch**

Advisor: Elizabeth Nawrot

*Double Take: Creativity as Predictors of Convergent and Divergent Thinking and Figural Reversal Ability Rates*

**Josie Ova**

Advisor: Rochelle Bergstrom

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## SOCIOLOGY AND CRIMINAL JUSTICE

*Rape Culture throughout the World*

**Katelyn Weber**

Advisor: Karen Branden

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## SPEECH LANGUAGE AND HEARING SCIENCES

*Experiences of College Students with Hearing Loss: Qualitative Interviews*

**Alexandra Heisler, Rebecca Paul, and Anna Koepp**

Advisors: Nancy Paul and Mary Drake

*Theory of Mind Interventions with Children Who are Deaf or Hard of Hearing*

**Jenna Frink**

Advisor: Elaine Pyle

*Clinical Fellowship Year in the Field of Speech-Language Pathology*

**Ann Siemon**

Advisor: Kris Vossler

*Evidence Based Interventions for Managing Challenging Behaviors for Children with Autism Spectrum Disorder*

**Hannah Hogenson**

Advisor: Elaine Pyle

*Connection Between Radiation Treatment For Head and Neck Cancer and Dysphagia*

**Kara Morrow**

Advisor: Nancy Paul

*Ankyloglossia: Potential Feeding Challenges for Infants with Ankyloglossia*

**Tessa Rasmussen**

Advisor: Elaine Pyle

*The Use of Animal Assisted Therapy for Children with Autism Spectrum Disorder*

**Brooke Mickelson**

Advisor: Kris Vossler

*Effectiveness of Literacy Intervention Provided by School-Based SLPs: Roles and Impressions on Literacy Teams*

**Ashley Alvarado**

Advisor: Kris Vossler

*The Importance and Role of Advocacy for Early Intervention Services*

**Emiko Smith**

Advisor: Elaine Pyle

*Assessment Procedures and Instrumentation in Pediatric Dysphagia*

**Angela Bowman**

Advisor: Nancy Paul

*Implementation of AAC in Educational Settings*

**Paige Schiller**

Advisor: Kris Vossler

*AAC within Early Intervention Services: Future Considerations*

**Audra Lea**

Advisor: Kris Vossler

*Retention and Regression of Cognitive-Communicative Abilities in Dementia*

**Kelsey Giesbrecht**

Advisor: Nancy Paul

*A Comparison of Three Swallowing Screening Tools for Adults with Neurological Disorders*

**Courtney Erickson**

Advisor: Nancy Paul

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*Normative Variables of Speech Sound Acquisition*

**Dena Mekalson**

Advisor: Elaine Pyle

*Selective Mutism A Review of the Literature*

**Darriean Stokke**

Advisor: Kris Vossler

*Aquatic Therapy for Individuals with Autism*

**Erin Ulmer**

Advisor: Rachel Stotts

*Parents Low Socioeconomic Status Affects Interactions with Their Children*

**Marissa Philips, Annika Stotts, Kylie MacDonald, and Abby Randall**

Advisor: Sung Ok Park

*Speech-Language Pathology Interventions in Promoting Success in Post-Secondary Education Following Traumatic Brain Injury*

**Zoe Weltzin**

Advisor: Nancy Paul

*Factors related to successful implementation of an AAC device for an individual with autism*

**Michaela Worms**

Advisor: Kris Vossler

*The Role of the Speech-Language Pathologist in the Neonatal Intensive Care Unit*

**Hannah Anderson**

Advisor: Nancy Paul

*Intervention strategies and psychosocial factors for a client with Broca's aphasia and apraxia of speech: A case study*

**Erin Olson**

Advisor: Nancy Paul

*Personality type and Speech-Language Pathologists' Employment Setting: Is There a Pattern?*

**Ashley Schurr**

Advisor: Kris Vossler

*Assistive Listening Devices for Students With Hearing Loss in Primary and Secondary Educational Settings: A Systematic Review*

**Paige Skinner**

Advisors: Nancy Paul, Mary Drake, Travis Dolence, and MariBeth Plankers

*A Review of Formal Approaches to Communication Partner Training During Rehabilitation for Individuals with Aphasia*

**Teresa Parker-Stenzel**

Advisor: Elaine Pyle

*The Psychosocial Effects of Specific Language Impairment in Childhood, Adolescence, and Early Adulthood*

**Rebecca Holden**

Advisor: Kris Vossler

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## STUDY ABROAD

*A Confluence of Quality: Academic, Cultural, and Personal Growth through Study Abroad*

**Hunter Ahrens, Emily Dunaisky, and Yvette Ishimwe**

Advisor: Janet Brandau

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## VISUAL ARTS

*The Ethical Book: The Impact of Book Making on the Environment*

**Tabitha Rivera**

Advisor: Anna Arnar

*Binding Books: In the Post-Gutenberg Age*

**Bryanna Ferguson**

Advisor: Anna Arnar

*Book Design and Cultural Values of the Book*

**Megan VanderMeulen**

Advisor: Anna Arnar

*Eggs, Flour, Cereal: The Ethics of Marginalia*

**Mackenzie Landry**

Advisor: Anna Arnar

*Brazilian Cinema and Poverty, the Tie that Binds*

**Benjamin Downing**

Advisor: Anthony Adah

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## WOMEN'S STUDIES

*A new way to see the world*

**Bahati Muhiya Numbi**

Advisor: Dana Bisignani





MINNESOTA STATE UNIVERSITY  
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