



**HONORS
COLLEGE**

JAMES MADISON UNIVERSITY.

2019

**HONORS
SYMPOSIUM**

APRIL 5

HOTEL MADISON

PROGRAM
2019 HONORS SYMPOSIUM
HOTEL MADISON, APPALACHIAN ROOM



12:00–1:30 PM

SESSION 1

1:30–3:00 PM

SESSION 2

The types of projects presented at the symposium are identified as either:



Honors capstone project—All Honors students complete a research or creative project in their junior and senior years.



Independent research, scholarship, or creative project—Scholarly endeavor pursued independently by the student.



Class project—Projects completed as part of a course or study abroad experience.

INDIVIDUAL SYMPOSIUM PARTICIPANTS



ANDERSON, CASSIDY

Ordinary Beautiful

I believe the everyday beautiful can be found anywhere and everywhere, but it takes a special eye to find it. Ordinary beautiful can only be captured by the creative photographer. I have discovered this in my own photography exploration and will communicate a method of making creative photography more accessible and understandable.

Major: Engineering, Mathematics | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #53, Session 1



APPLETON, EMMA

Learning in the Light of Freedom: The Mississippi Freedom Schools of 1964

This project investigates the “Freedom Schools” of the Mississippi Freedom Summer Project of 1964. It argues that despite the distinct differences between the Mississippi African American students and their white, northern teachers, the teachers and students were able to build relationships that enabled the students to actualize their potential and value as Americans.

Major: History | *Advisor:* Raymond Hyser, Ph.D.

- Poster: #12, Session 1



ARMENTA, JESUS

Moments as They Pass

This creative project is an anthology of poetry with over 106 original pieces, spanning over 125 pages. These pieces center on the thematic elements of existential philosophy and its intersection with beauty, time, and concept of self. Ultimately, this project seeks to bridge the gaps between real life, philosophy, poetry, and ideas of self.

Major: Psychology | *Advisor:* Anne van Leeuwen, Ph.D.

- Poster: #33, Session 1



ARNESEN, KIRSI

COB 300 Experience

In COB 300, my team created a business plan for co-living apartments in the Arlington area. Our apartments are compact, allowing for lower rent while still emphasizing community and quality. By taking this class in conjunction with COB 300H, I was able to apply the principles of teams to my COB300 experience.

Major: Computer Information Systems | *Advisor:* Laura M. Leduc, Ph.D.

- Poster: #42, Session 2



ASHLEY, MATTHEW

Children of Milagros: Bringing Aid to a Community Center in Need

Children of Milagros, Inc. was organized for the charitable purposes of providing tuition for educational and developmental services to underprivileged children in the Dominican Republic. To establish a rationale for funding the space, this project explores the needs of the community as well as the present and future benefits of early childhood education and socialization for individuals; it also discusses the founding of a non-profit organization to fundraise and support future community growth.

Major: Biotechnology | *Advisor:* Felix Wang, Ph.D.

- Poster: #98, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



BECK, KYLE

Are Firm Emissions Data Likely to be Accurate Under Carbon Dioxide Cap and Trade Programs? An Economic Analysis.

Cap and trade programs are one of the most popular methods in abatement of CO₂ emissions around the world, but the incentives for CO₂ emitters to intentionally misstate initial emission levels when joining cap and trade programs can jeopardize the entire program.

Major: Economics | *Advisor:* Scott R. Milliman, Ph.D.

- Poster: #35, Session 1



BRAZELTON, JAKE

Spiritual and Religious Music from Paleolithic to Modernity

This project examines the most prominent instruments and musical styles used over time in spiritual and religious music. For each era, major instruments and music styles are analyzed for their significance and function, and a short song is played so the audience gains a better appreciation for this music in real time.

Majors: Computer Science, Music Industry | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #44, Session 2



BROWN, MADELINE

I Think My Teacher is Afraid of the Dark

Many contemporary educators have been settling for fluorescent, bright lights in the classroom despite research done by previous education theorists. Maria Montessori, in her Montessori Method of Education, asserts that classrooms should include a natural, soft feel that is both focusing and relaxing. Because of this, we should rethink classroom lighting in our schools today to create educational spaces that promote active and engaged learning.

IDLs: Elementary Education | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #55, Session 1



BUENO LEONARD, VALERIE

A Study of Body Image and Ballet

This research aims to explore how ballet can affect a dancer's body image. Body image can be an important factor in eating disorders, mental illness, and gender or racial identity.

Major: Communication Studies | *Advisor:* Michael J. Klein, Ph.D.

- Poster: #94, Session 2



BURKE, DIANA

Deaf Education: The Past, Present, and Future

This project involves my observations as a student observer at the Virginia School for the Deaf and Blind (VSDB). Through self-reflection and analysis of interview responses from professionals who work with deaf children, this paper will share insights into how to support children with hearing loss in their education and the importance of American Sign Language.

Major: Communication Sciences and Disorders | *Advisor:* Melissa Garber, Au.D.

- Poster: #37, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



CABANA, SOPHIA

A Bridge Between Earth and Sky: Investigating the Relationships Between Ancient Persia and the Natural World

This project seeks to investigate the relationship between ancient Persian art and the natural world. Emphasis will be placed on the way Persian architecture interacted with the environment or mimicked natural patterns, as well as depictions of nature in Persian art and what these depictions symbolized.

Major: History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #46, Session 2



CADEMATORI, ALLISON

The Effects of Post-Endurance Exercise Nutrient Intake on Hydration Status and Muscle Soreness Rating

This study analyzed post-endurance exercise nutrient intake on the hydration status and muscle soreness ratings of ten elite, adolescent cyclists. Three different nutritional treatments and their associated outcomes were analyzed.

Major: Kinesiology | *Advisor:* Michael Saunders, Ph.D.

- Poster: #39, Session 1



CALDWELL, JACK

The Effect of Servant Leadership on the Performance of Food Safety Practices

In this study, we will examine five elements of Servant Leadership (SL) in order to expand our understanding of what SL requires of its practitioners. We will also test the relationship of SL with the performance of Food Safety Practices (FSP). This will enhance our understanding of why SL and other management practices vary in their effectiveness in inducing the performance of FSPs.

Major: Business Management | *Advisor:* Jooho Kim, Ph.D.

- Poster: #97, Session 2



CHAMBERS, SHANE

Characterization of Trpm1 Function In Mammalian Iris Constriction

Mammalian pupillary light reflex is a highly conserved mechanism designed to regulate the amount of light entering the eye. The regulation of this reflex has been shown to be mediated by multiple pathways, and the exact mechanism of regulation is still only partially understood. Using a combination of behavioral and molecular techniques, we demonstrate a novel and necessary role of the transient receptor potential melastatin 1 (Trpm1) ion channel in the pupillary light reflex.

Major: Kinesiology | *Advisor:* Marquis T. Walker, Ph.D.

- Poster: #47, Session 1



CHRISTENSEN, SHARON

Fake News: Psychology of Misleading News Headlines

I investigate the effects of news headlines on the reader through a comprehensive literature review, focusing on the language and comprehension of headlines.

Major: Psychology | *Advisor:* Sri Siddhi N. Upadhyay, Ph.D.

- Poster: #79, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



COLIP, GRANT

Grain Size and Vegetation as Controlling Variables for Stream Channel Morphology

In this study, fluvial and vegetation controls including bedload grain size, greenline data, and basin dynamics are analyzed to determine their effects on stream channel morphology. This information is useful for further understanding how stream degradation on the East Coast and in the Shenandoah Valley can be studied and mitigated in the cause of restoring stream channel health and stability.

Major: Geology and Spanish | *Advisor:* L. Scott Eaten, Ph.D.

- Poster: #18, Session 2



CONWAY, CORY

Self-Confidence and Its Impact on Sport Performance

Belief in one's self does not come naturally to everyone, and can create a barrier between capability and accomplishment. In this research, I examine college basketball data from the 2010 season and analyze trends to find patterns showing a correlation of self-confidence to performance and other variables.

Major: Business Marketing | *Advisor:* Kamal Lamsal, Ph.D.

- Poster: #34, Session 2



COOPER, KYLE

The Effects of Contingency Management on Nicotine Intake

I conducted a small-n, behavior modification project that investigated the effects of contingency management on nicotine intake, and more specifically, on Juul intake.

Major: Psychology | *Advisor:* Brian K. Saville, Ph.D.

- Poster: #28, Session 2



CORNWELL, MORGAN

Examining the Effectiveness of Interprofessional Collaboration for Preprofessional SLP and OT Graduate Students

This study explores the effects of an emergent writing interprofessional collaboration experience for pre-professional speech-language pathology (SLP) and occupational therapy (OT) students. The study concludes that the opportunity to work collaboratively and apply theoretical knowledge through hands-on experiences leads to increased learning outcomes and better equips students for successful collaboration.

Major: Communication Sciences and Disorders | *Advisor:* Stacey L. Pavelko, Ph.D.

- Poster: #41, Session 1



COX, ASHLEY

Speech Characteristics of Conversational Speech

Conversational speech tasks are utilized in research and clinical practice of speech and hearing sciences, but conversational speech is often defined and implemented differently across contexts, which poses a challenge for the interpretation and comparison of data. The purpose of this study is to compare speech characteristics elicited with different speech tasks that have been operationally defined as conversational speech.

Major: Communication Sciences and Disorders | *Advisor:* Christina Kuo, Ph.D.

- Poster: #43, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



CROUCH, AUSTIN

Impact of Certifications on the Computer Information Systems Major

Research to help decide if certifications should be added to the CIS major when the curriculum is revised/analyzed.

Major: Computer Information Systems | *Advisor:* Thomas W. Dillon, Ph.D.

- Poster: #20, Session 2



CUTLIP, LAUREN

Recycling: A Complex Problem

This presentation is an assessment of global variations in recycling and how this has impacted the city of Harrisonburg. What roles do public awareness, contamination and infrastructure play in this complex problem, and what can we as individuals do to help?

Major: ISAT | *Advisor:* Shannon Conley, Ph.D.

- Poster: #91, Session 1



DALTON, MADISON

Increasing Museum Audience Diversity

ROTHKO: Exploring Spirituality through Abstract Expressionism explores the ways in which modern day spirituality was influenced by abstract expressionism. The project focuses on mid-20th century artist Mark Rothko and the 1971 project Rothko Chapel. The project calls into question art as an accessory to spirituality and how it is, or is not, successful.

Major: Art History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #48, Session 2



DALY, SHEA

The Inner Workings of Greek Life

While sororities offer many positives benefits, sororities have also evolved to support a culture in which there is a value placed on physical appearance, wealth, homogeneity, hazing, and outdated traditions. In this problem-solution essay, I analyze these different points and propose solutions on how to reform Greek life.

Major: Communication | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #57, Session 1



DANIELS, OLIVIA

The Correlation Between Undergraduate Students Who Visit the University Recreation Center and Students Exhibiting Symptoms of an Eating Disorder

The prevalence of eating disorders on college campuses serves an important issue in contemporary society. This study provides evidence that freshmen undergraduate females who visit UREC and undergraduate females who have the main goal of burning calories are more likely to exhibit eating disorder symptoms.

Major: Health Sciences | *Advisor:* Audrey J. Burnett, Ph.D.

- Poster: #19, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



EDELMAN, JOHN

Kanye West and Popular Culture

Centuries ago, the main source of societal culture was religion; however, culture today is driven by musicians, athletes, businesses, and other non-religious influencers. One of the most influential people in culture today is Kanye West. This project will juxtapose photos of Kanye West with a similar photos of religious artwork in order to evoke meaningful questions about worship, societal values and ethics, and style in different time periods.

Major: Economics | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #50, Session 2



EDELMAN, JOHN

Teamwork in Antwerp

Economics | *Advisor:* Laura Leduc, Ph.D.

- Poster: #99, Session 1



EDEMBA, DESIREE

Sexual Variation in the skin microbiome of garter snakes

The reptilian microbiomes are not well understood and there are a limited number of examples of reptilian microbiomes. The goal of this experiment is to characterize the skin microbiome of the garter snake and its potential sexual dimorphisms, which both characterize the skin microbiome of the red-sided garter snake, and then comparing the skin microbiome between hosts of different sex.

Major: Biology | *Advisor:* Morgan M. Steffen, Ph.D.

- Poster: #22, Session 2



ELINE, SARAH

The Reproducibility Crisis in Scientific Literature

Following the push for evidence-based practice came a huge proliferation of research journals and journal articles. With this increase in quantity came concerns regarding the reproducibility of scientific research. Upon further investigation, various causes for this reproducibility crisis have surfaced. However, with overarching themes of open data, preregistration of research, and collaboration among scientists, a change can begin to be seen and trust and rigor can be regained in research.

Major: Health Sciences | *Advisor:* Audrey J. Burnett, Ph.D.

- Poster: #45, Session 1



FISCHER, LILY

The Projection of Motherhood and Fertility on the Female Form

This paper examines the relationship between the idea that the female body is biologically determined for motherhood and how this view is projected on the female form. The modern idea that females are pre-pregnant, along with the sexualization of the female form, is not only false and harmful to our interpretation of the past, but reinforces misogynistic, deterministic views on the female body and purpose.

Major: Anthropology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #52, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



GARCIA CONTRERAS, ARIADNE **Worldviews and Economic Preferences**

To obtain an understanding of how worldviews influence economic behavior, we conducted a survey and role-playing experiments on parent-child pairs. The experiments allow us to observe how parents influence children's decision making and how their personal beliefs may impact these decisions.

Major: Economics and International Affairs | *Advisor:* Vipul Bhatt, Ph.D.

- Poster: #36, Session 2



GISSLER, CARIS

Participant Accuracy of Biofeedback on a Skilled Swallowing Task

When individuals suffer from dysphagia, an inability to swallow properly, they are not only at risk of aspiration and penetration, but also miss out on meal times which can be important psychosocially. The results of this study indicate that participants are able to modulate their swallowing effort to approximate three different effort levels, but that visual biofeedback did not affect participants' accuracy.

Major: Communication Sciences and Disorders |

Advisor: Erin E. Kamarunas, Ph.D.

- Poster: #24, Session 2



GOLDSWORTHY, MEGAN

Spirituality Through Nature: American Impressionism and Eliot Candee Clark

This paper will aim to analyze the spirituality found in Clark's paintings of nature. By looking at the artistic style of impressionism, then at a painting done by Clark, the reader will be able to identify the presence of spirituality and the elements that help Clark convey this spirituality.

Major: Anthropology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #54, Session 2



GUDMUNDSSON, INGA

Bringing the Norm to the 'Burgs: Gender and Design at Two Virginia Normal Schools, 1908-1928

The purpose of this presentation is to compare James Madison University and the University of Mary Washington from their origins following the passage of a 1908 General Assembly bill creating state normal schools for girls in Harrisonburg and Fredericksburg, Virginia.

Major: History | *Advisor:* Margaret M. Mulrooney, Ph.D.

- Poster: #93, Session 2



GUYER, JULIA

Theft of Fire and Domestication of the Wild

I explore how early humans connected themselves to the divine through use of man-made fire, as affected by different stages of the Ice Age and shown through prehistoric European cave art. How does fire, and thus domestication of wilderness, affect how humans view themselves and their relation to the spirit world in art?

Major: Art History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #56, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS

HADFIELD, EMILY

An Effective Methodology for Teaching Writing to Adolescent English Learners

This creative Honors project involves analyzing research in the area of second language acquisition and writing pedagogies for teaching English learners (ELs). On examination of the research on pre-service teacher training and teaching writing to ELs, it is clear that there is a gap in the training and teaching of writing, particularly for ELs, and this paper will synthesize research to find an effective methodology for teaching writing to adolescent ELs.

Major: Modern Foreign Languages | *Advisor:* Kristen M. Shrewsbury, Ph.D.

- Poster: #26, Session 2



HALL, ALIYAH

The Examination and Improvement of Religious Logos

In this project, I will analyze current logos from several religious organizations across the globe and explain how artistic choices succeed or fail to convey the mission and values of the religion. I will use this information to improve or create a new logo for each religious organization and provide an analysis on why my logo fits this organization better than the original logo.

Major: Media Arts and Design | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #58, Session 2



HEIN, REGAN

The Art of the Japanese Tea Ceremony

Japanese tea ceremonies are social events focusing on spirituality and meditation as a group as well as etiquette and tradition, going back centuries. Because this is a tradition held for centuries, traditional acts within the tea ceremony are maintained through art and historical writings from ancient Japan.

Major: Anthropology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #60, Session 2



HINES, CHARLES

Interactive Model of Stonehenge

This project consists of a 3D interactive model of Stonehenge. Users are able to interact with an interface to select a date and time, and the program will show Stonehenge and the position of the sun in the sky at the given date and time.

Major: Computer Science and Mathematics | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #62, Session 2



HOJNACKI, VICTORIA

Multi-proxy Characterization of ACEX Subunit 1/5 (the “Zebra” interval) to Better Understand Sediment Deposition at this Critical Age Boundary and Paleooceanographic Transition

Sediment cores recovered from the Lomonosov Ridge on IODP Expedition 302, the Arctic Coring Expedition (ACEX), provide the first major insights into long-term Cenozoic history of climate and ocean conditions in the central Arctic. This study aims to better characterize the sedimentology of the “Zebra interval,” using multiple factors to hypothesize about potential changes in source, transport, and depositional environment.

Major: Geology | *Advisor:* Kristen E. St. John, Ph.D.

- Poster: #5, Session 1



INDIVIDUAL SYMPOSIUM PARTICIPANTS



HUTCHENS, JULIA

Dry River Watershed Valuation and Protection Plan

The Dry River is Harrisonburg's and the surrounding communities' main source of water. This area is threatened by illegal dumping, erosion from primitive roads and future road-building sedimentation, a lack of awareness of the true value of the resource, and the potential for hydraulic fracturing for natural gas. The purpose of this project is to measure and assess the true value of the environmental services provided by the Dry River watershed, including both the land owned by the City of Harrisonburg and the George Washington National Forest.

Major: Engineering | *Advisor:* Bradley A. Striebig, Ph.D.

- Poster: #4, Session 2



JANSEN, JENNA

COB300H

I will be presenting on our coursework in COB 300H, and how it relates to my COB 300 team experience.

Major: Marketing | *Advisor:* Laura M. Leduc, Ph.D.

- Poster: #38, Session 2



JOHNSON, MICHAEL

IDEA Software Case Study

Our case study is designed for students to use IDEA Software, a commonly used audit package in large accounting firms, to find fraudulent data by running different tests. These tests can vary from analyzing abnormally large transactions to looking for collusion between employees to using Benford's Law.

Major: Accounting | *Advisor:* David C. Hayes, Ph.D.

- Poster: #1, Session 1



JONES, ELLEN

Differentiation of Inter-Neck EMG Symmetry Between Children and Adults

There is very little data on Cervical Vestibular-Evoked Myogenic Potential (cVEMP) testing being conducted on children under the age of five. Additionally, EMG monitoring and amplitude normalization has not been thoroughly studied in this age group. As a result, the objectives of my study included: (1) determining the inter-neck EMG symmetry that exists between children (2-5) and adults in the sitting position, and (2) determining whether EMG monitoring and amplitude normalization are more effective in pediatric populations compared to young, healthy adults.

Major: Communication Studies and Disorders |

Advisor: Erin G. Piker, Au.D., Ph.D.

- Poster: #7, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



KAKAR, ALEXIS **COB300 in Antwerp**

While studying abroad in Antwerp, Belgium (COB 300) I worked with a variety of teams to complete projects. Using these experiences I looked at the big five personality model and analyzed the strengths and weaknesses of my differing teams in relation to the Team Personality Elevation (TPE) and Team Personality Diversity (TPD).

Major: Finance | *Advisor:* Laura M. Leduc, Ph.D.

- Poster: #40, Session 2



KERR, ISABEL **Cause Campaign for Dating Abuse in College**

Through a cause campaign and partnership with the James Madison University Health Center (UHC), this project confronts the widespread social issue of intimate partner violence (IPV) in college-aged relationships. The campaign is scheduled for implementation in October 2019, National Domestic Violence Awareness Month, in conjunction with the UHC's other awareness efforts.

Majors: SMAD and WRTC | *Advisor:* JoAnne M. Holman, Ph.D.

- Poster: #9, Session 1



LANDON, WILLIS **Sasha: Self-exploration and Storytelling Through Live Hip-Hop**

Multi-instrumentalist and lyricist, Sasha explores the intersection of thoughtful storytelling and music technology in a live hip-hop set. Through real-time beat-making and spoken-word-like verses, Sasha raises questions about masculinity, identity, and self-worth.

Majors: Music Industry and Independent Scholars |

Advisors: Matthew Chamberlin, Ph.D. and Philip L. Frana, Ph.D.

- Poster: #3, Session 1



LANDON, WILLIS **No Fault of My Own**

For years now, I have used hip-hop as a tool to organize and communicate my thoughts and ideas to the world. Typically, I write to capture a specific feeling or moment, but I hope to use this research project to craft an album or EP built around a central theme that tells a mostly linear, meaningful story.

Major: Music | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #59, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



LASCANO, ASHLEY

A Critical Analysis of Limit and Unlimited in Plato's *Philebus*

This presentation will center on the methodology of limit and unlimited and how Plato implements these terms within the dialog the *Philebus*. It shall also explore the similarities and differences in the methodology implemented to find the good life in the *Philebus* compared to other dialogs such as *The Republic*.

Major: Philosophy | *Advisor:* Daniel E. Flage, Ph.D.

- Poster: #6, Session 2



LICKERS, LINDSAY

The Effect of One Night of Sleep Restriction on Aerobic Exercise Performance

Sleep provides a recovery state for both the brain and body to repair damage and grow. Long term sleep deprivation has shown negative effects on athletic performance; however, little is known about the effect of a single night of restricted sleep, which is a plausible experience for an athlete before competition. This study focused on determining those effects.

Major: Kinesiology | *Advisor:* Trent A. Hargens, Ph.D.

- Poster: #11, Session 1



LOGAN, HOLLEY

Investigating the Role of Integrin Beta 3 in Dendritic Arborization in the Supragranular Developing Cerebral Cortex

A strong positive association has been found between mutations in integrin beta 3 (Itgb3) and autism spectrum disorder, but little is known about neuronal Itgb3 function in vivo. Many forms of autism spectrum disorder are thought to arise from dysfunctional dendritic arborization and synaptic pruning. Here, we test the hypothesis that Itgb3 is required for normal dendritic arborization in layer II/III pyramidal neurons of mouse neocortex.

Major: Biology | *Advisor:* George Vidal, Ph.D.

- Poster: #87, Session 2



LYLE, MORGAN

Mythical Mockumentary: An Exploration of the Spiritual Through the Theatrical

Spirituality and relationship with the divine have been an important aspect of human life for the past 200,000 years. This project studies the most well-known and prevalent religious and/or spiritual groups from the Paleolithic era to the present, comparing core aspects of belief systems in order to create the “ideal” spiritual practice.

Majors: English and Theatre | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #64, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



MAGUIRE, GRAHAM

Expanding Business to Harrisonburg

This study examines the Harrisonburg retail market through interviews with local retailers and surveys of JMU students regarding their retail preferences in an attempt to determine if the Harrisonburg retail market should be expanded.

Major: Management | *Advisor:* Angela L. Heavey, Ph.D.

- Poster: #8, Session 2



MARKFIELD, JENNIFER

American and British Speech Differences in Low Socioeconomic Status Homes

Growing up in a low socioeconomic status (SES) home can adversely impact social, educational, and economic outcomes in developing children. In this study, low-SES British and American mothers and their infants were compared using a LENA recording device in order to explore differences and similarities that existed between the two populations.

Major: Communication Sciences and Disorders |

Advisor: Rory A. DePaolis, Ph.D.

- Poster: #13, Session 1



METCALF, ROSS

What are the Connections Between Media and Politics and How Have They Changed?

This project discusses the role of media in the 2016 US presidential election and the impact of Donald Trump's electoral victory. It addresses how media relates to current and future American elections, as there is a complex relationship between news media and American politics.

Major: Media Arts and Design | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #61, Session 1



METZGER, KAYLEE

Microchips in the Elderly at Nursing Homes

This project is intended to be a creative take on how we can reduce administrative drug errors at nursing homes by providing family members with complete access to the data through microchips. It explores the statistics of human error, along with advocates from nursing homes to see the need for this device.

Major: Health Services Administration | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #63, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



MOHAN, CAROLINE

Donald Trump is Doing a "Very Good" Job: A Rhetorical Analysis of President Donald Trump's Communication Strategy

Regardless of alleged scandals, frequent social media usage, and extemporaneous and fiery rally speeches, President Donald Trump's approval ratings remain steady and he continues to move forward in his international and local political endeavors, baffling political and rhetorical specialists. In this study, rhetorician Kenneth Burke's fantasy-theme and cluster criticisms are used to analyze Trump's overall rhetorical themes, in social media and beyond, as well as closely analyze three of his rally speeches.

Major: WRTC | *Advisor:* Karen M. McDonnell, Ph.D.

- Poster: #10, Session 2



MORALES, BRYNN

The Feasibility of Standardized Cognitive Assessments for Vestibular Patients

Vestibular dysfunction is associated with specific cognitive deficits, which negatively affects daily activities and quality of life. The objective of this study is to assess the feasibility of a cognitive assessment battery for vestibular patients.

Major: Communication Sciences and Disorders | *Advisor:* Erin G. Piker, Ph.D.

- Poster: #15, Session 1



MORGAN, MADISON

Some Heroes Wear Produce Tags

The cookbook titled "Some Heroes Wear Produce Tags" will explore the benefits, accessibility and potential enjoyment of a vegan diet as implemented into the life of an average college student, identifying ways in which a plant-based diet can not only save the day, but also the life of the consumer.

Majors: Modern Foreign Languages, Biology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #65, Session 1



MORGAN, SARAH

Helping Hands for Children with Disabilities

Today, in Occupational Therapy clinics across the nation, there is a plethora of equipment that therapists use with their clients. Yet, there is little wearable equipment for children to assist pediatric clients who have low functioning fine motor skills confidently learn how to strengthen their fine motor skills. Because of this, I will create a model that can be utilized by pediatric clients.

Major: Health Sciences | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #67, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



MURRAY, BRENN A

Do EMG Monitoring and Amplitude Normalization Reduce cVEMP Variability in a Pediatric Population?

One of the leading tests for the diagnosis of balance disorders is known as the cervical vestibular evoked myogenic potential (cVEMP) test. This project seeks to determine if the adult gold standard protocol of using electromyography (EMG) monitoring and amplitude normalization techniques during cVEMP testing is effective in reducing the amplitude variability of the results in a pediatric population.

Major: Communication Sciences and Disorders | *Advisor:* Erin G. Piker, Ph.D.

- Poster: #17, Session 1



MURRAY, NATAYLA

Dragons, a True Mystery of the Ages

From ancient Mesopotamia to the modern era, humans have been fascinated by a creature that does not exist, except within the limits of our imaginations: the dragon. How is it that nearly every culture in the world has a dragon-like creature in its history or mythology? This project seeks an explanation for this phenomenon.

Major: Geographic Science | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #66, Session 2



NORMAN, SEAN

Rethinking Divergent Thinking

For the last 70 years, scientists and researchers have based creativity on one's divergent thinking, an indicator of creative potential. The goal of this research project is to develop a new, updated scoring system based on a more theoretical framework consistent of taxonomic and thematic relational comparisons.

Major: Management | *Advisor:* David R. Peterson, Ph.D.

- Poster: #30, Session 2



ORR, MALLORY

The future of the euro in a post-Greek environment: opportunities and perils

This thesis examines the future of the European Union, the eurozone and the value of the euro currency. It describes the history of European integration necessary for the launch of the euro in 1999, the European sovereign debt crisis and its effects, as well as current issues and policy.

Majors: International Business and Modern Foreign Languages |

Advisor: Marina V. Rosser, Ph.D.

- Poster: #21, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



PEARSALL, MEMI

The One Health Initiative: Exploring Linkages Among Human, Animal, and Environmental Health

The One Health Initiative (OHI) is a global strategy for strengthening interdisciplinary collaborations among health care for humans, animals, and the environment. The purpose of this Honors capstone project is to study the OHI, zoonotic diseases and create a comprehensive thesis as to how it is relevant to environmental health, human medicine, and veterinary medicine.

Major: Biology | *Advisor:* Pradeep Vasudevan, Ph.D.

- Poster: #23, Session 1



PHILLIPS, MEGAN

The Role of Consciousness in Holistic Healing: A Study and Comparison of Ayurveda and Traditional Chinese Medicine

This study will research, compare, and contrast the two oldest and most extensive natural healing traditions in the world: Ayurveda and Traditional Chinese Medicine (TCM). These two holistic approaches reveal the important role that consciousness plays during times of healing.

Major: Art History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #68, Session 2



PRATT, HUNTER

The United States' Shifting Relationship with Taiwan due to Cold War Influences

The United States' relations with Taiwan underwent a transformation following the flight of the Nationalists to Taiwan. The US ally developed a cooler relationship with the Truman administration that would require the Cold War to revitalize. The Korean War led to President Truman reevaluating and eventually accepting Chiang Kai-shek's regime in Taiwan, creating one of the cornerstones of East Asian international relations.

Major: Intelligence Analysis, History | *Advisor:* Yongguang Hu, Ph.D.

- Poster: #25, Session 1



PREZIOTTI, KATHRYN

Rethinking Divergent Thinking

For the last 70 years, scientists and researchers have based creativity on one's divergent thinking, an indicator of creative potential. The goal of this research project is to develop a new, updated scoring system based on a more theoretical framework consistent of taxonomic and thematic relational comparisons.

Majors: Psychology, Business Management | *Advisor:* David Peterson, Ph.D.

- Poster: #32, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



REED, MATTHEW

The Effects of Policy Frameworks on Microfinance in Kenya

My thesis focuses on the empirical effects of Kenya's Microfinance Act of 2006 on the proliferation of microfinance in the country. The focus is on the organizational and individual participation of borrowers in the industry before and after the policy change.

Major: Economics | *Advisor:* John R. Subrick, Ph.D.

- Poster: #27, Session 1



ROLEN, ELIZABETH

The Refugee Identity Struggle in Za'atari

This project analyzes the identity struggle that refugee and migrant children face when their communities are displaced from their homeland. It focusses specifically on the community of Syrian refugees in the Za'atari refugee camp on Jordan's northern border with Syria. The project identifies if and how refugee children in Za'atari are able to keep their Syrian cultural and religious identity, without being able to remember their life in Syria.

Major: International Affairs | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #70, Session 2



SCHNEIDER, ALEXIS

Gender Disparity in STEM

This study describes the student-professor relationship and how it relates to gender disparity in STEM as well as provides guidance for how to reduce this inequality in classroom and lab spaces. This project will result in the development of a research-based guide to enhance gender inclusivity in STEM classroom and lab spaces at colleges and universities.

Majors: Biology, Independent Scholars | *Advisor:* Matthew Chamberlin, Ph.D.

- Poster: #85, Session 2



SCHULZ, GEORGE

Is it Real? Integrating Stress Models and Fatigue Data to Understand Recovery Status

This project aims to integrate the traditional Performance Manager Chart (PMC) model with Heart Rate Variability (HRV) measurements. It will also examine the relationship between Training Stress Score (TSS) and the Whoop Strain measurement through logarithmic regression as a way to understand holistic physical strain to create a model that better projects performance and acute recovery status.

Major: Kinesiology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #69, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



SHIFFLETT, CAROLINE

Design in Buildings of Spiritual Significance

By analyzing the design of buildings with religious or spiritual significance from around the world, this project will design a new space that incorporates these spiritual connections. This space will include lighting and other design tools from various cultures.

Major: Biotechnology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #72, Session 2



SLATER, MONICA

Discovering Domitila and Making Artistic Choices

For my Honors capstone project I plan to perform, produce, and coordinate the one-woman, Brazilian-Portuguese opera, *Domitila*. Extensive research is required before starting a project like this, and I will be responsible for most of the dramaturg duties. This current project will kickstart the artistic process by translating the opera and contextualizing it historically.

Majors: Music, WRTC | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #71, Session 1



SLOSS, AARON

Techno-economic Systems Evaluation of Industrial Hemp Biomass on Poultry Production

This project seeks to evaluate a potential industrial hemp industry—specifically, the production of hempseed—as a competitive feedstock for select poultry commodities. Additionally, this project analyzes the benefits and disadvantages of this industry, and how it could be integrated into the current agro-economic model of Virginia.

Major: Engineering | *Advisor:* Samuel A. Morton III, Ph.D.

- Poster: #14, Session 2



SMITH, AUBREE

The Hands that Built a God: Exploring Spirituality in Relation to Architectural Design

This project will explore the relationship between evolving architectural trends and the conception of God in order to answer the question, “How has the evolution of religion been reflected in architecture?” This study uses research and poetry of spiritual structures in the Middle East from the prehistoric era to the 7th century.

Majors: Intelligence Analysis, Russian Studies | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #74, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



SMITH, ERIN

Prehistoric High Times

This project examines the valued relationship between prehistoric spiritual art practices and the use of reality-bending psychoactive substances. The inclusion of the trance in cave art can explain prehistoric concepts regarding art, spirituality and theories of visual perception.

Major: Art History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #76, Session 2



SONG, MIRYENG

Interdisciplinary Perspectives on Mental Health Disparities

Mental health and illness encompasses the emotional, psychological, and social perceptions of well-being, and is influenced by a variety of factors beyond neurobiological causes and symptoms. We need to become more aware of the social, political, and cultural components of mental health in order to develop public awareness and effective interventions across diverse populations.

Majors: Independent Scholars, Psychology | *Advisor:* Matthew Chamberlin, Ph.D.

- Poster: #2, Session 2



SPLAN, PATRICE

Refugee Literature in the Classroom

According to the UNHCR, there are more than 25 million refugees in the world today, over half of whom are under the age of 18. This project provides an analysis of young adult refugee literature with a unit plan for application of texts in a ninth-grade Virginia English classroom, stressing the importance of education as a tool for awareness, reflection, and empathy.

Major: English | *Advisor:* Sofia Samatar, Ph.D.

- Poster: #16, Session 2



STRAND, RYAN

The Visual Presidency of Donald Trump's First Hundred Days: Political Image Making and Digital Media

As previous research has documented, White House photography is an essential vehicle for storytelling, image building, and persuading. This paper will analyze the visuals on White House social media accounts (i.e., Twitter and Facebook) in Trump's first 100 days and explore these techniques and digressions.

Majors: Communication Studies, Media Arts and Design |

Advisor: Dan K. Schill, Ph.D.

- Poster: #29, Session 1

INDIVIDUAL SYMPOSIUM PARTICIPANTS



SUSCO, CATHERINE

Antwerp-opedia: a Microsoft SharePoint Site

As my Honors capstone project, I implemented a Microsoft SharePoint site where JMU study abroad alumni from the College of Business Semester in Antwerp program can share their experiences and travel tips with other JMU students preparing to go to Antwerp. The goal of this project was to develop an online portal to host a collaborative, centralized site where students can find information regarding the Semester in Antwerp program.

Major: Computer Information Systems | *Advisor:* Carey B. Cole, Ph.D.

- Poster: #31, Session 1



SWINEHART, BRIAN

The Fall of Man

Fall of Man by Michelangelo has two different panels with a clear division between the two. The left side depicts Adam and Eve being tempted by the serpent; on the right panel, they are being banished from the Garden of Eden. This project explains this painting through an examination of commentaries about it, biblical scriptures, and the works of Christian authors.

Major: Biology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #78, Session 2



THOMPSON, SIDNEY

The Effects of Unconscious Bias in the Workplace

This study presents research on the effects of unconscious bias in the workplace, specifically related to gender inequalities of both men and women and how the workplace environment is affected.

Major: Marketing | *Advisor:* Michael J. Klein, Ph.D.

- Poster: #51, Session 1



TIRADO, MADELINE

Exploring Spirituality Through Sports

This project separates spirituality from religion as a mind-body relationship. The “mind” aspect refers to a sense of ease, calm, inner-peace, and self-reflection; the “body” refers to physicality. To be a successful athlete requires a certain level of mental strength and capacity. Where does that strength and motivation originate? Some believe it comes from a coach, fans, friends and family, while others believe it comes from the person.

Major: Modern Foreign Languages | *Advisor:* Wren R. Stevens, Ph.D.

Poster: #80, Session 2

INDIVIDUAL SYMPOSIUM PARTICIPANTS



TURNER, FIONA

Spiritual Spyness: Worship Figures Reveal a Civilization's Cultural Values

This project examines how historic civilizations represented the spiritual realm in terms of gods, symbols or mythologies. I propose that a culture's values shaped the way these spiritual figures were created. The study analyzes the most prevalent spiritual figures from five civilizations from the Babylonian age to the end of ancient Greece (roughly 2,900 years).

Majors: Intelligence Analysis and Political Science |

Advisor: Wren R. Stevens, Ph.D.

- Poster: #82, Session 2



WEAKLEY, JACOB

Creator to Creation or Creation to Creator?

This project analyzes the *Creation of Adam* by Michelangelo on the ceiling of the Sistine Chapel in Vatican City, and questions whether the image depicts God reaching out to Adam, or Adam reaching out to God.

Major: Biology | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #84, Session 2



WHALEN, JACK

Teamwork in Antwerp

On my poster I will take the different theories I have learned in COB300H and relate them to my marketing team experience in Antwerp. I will start by describing the task we were assigned then discuss how ideas such as psychological safety, team conflict, and team composition all related to my experience. Finally, I will discuss how I think my team could have improved with a greater understanding of these theories from the beginning.

Accounting | *Advisor:* Laura Leduc, Ph.D.

- Poster: #100, Session 1



WHITE, ELIZABETH

The Effect of Spirituality on Human Diet

This project focuses on various diets in human cultures around the world, examining the roles of religion, health, and moral beliefs in the decision to follow a plant-based diet.

Major: Art History | *Advisor:* Wren R. Stevens, Ph.D.

- Poster: #86, Session 2



ZHANG, YUN

Blockchain Security: How Does Blockchain Improve Data Security?

This project discusses blockchain security, explaining how blockchain works and introducing methods to create a blockchain network using blockchain technologies like hyperledger composer and fabric.

Major: Computer Information Systems | *Advisor:* John Guo, Ph.D.

- Poster: #96, Session 2

GROUP SYMPOSIUM PARTICIPANTS



BAIK, KARIS, AMANDA GOULETTE, AND OLIVIA PAGE

The Desexualization of Racial Minorities in the United States

Desexualization is a result of complex power structures and societal constructs that dictate whether a body is acceptably “sexy.” Dating apps and the data that they collect create a window through which to view how these stereotypes and their resulting implicit biases affect the choices and actions of people of certain groups, creating algorithms that further facilitate racial biases.

Advisor: Michael J. Klein, Ph.D.

- Poster: #77, Session 1



CAPPO, MATTHEW, DANA WEBB, ABIGAIL MUMMA, LOGAN RODDY, JAZMINE ORTEY, ERIN PAULSON, AND TESS GIBSON JMURJ

JMURJ (James Madison Undergraduate Research Journal) is a student-run, peer-reviewed, undergraduate academic journal. It promotes, publishes, and shares the excellent research and scholarship produced by students from all JMU undergraduate disciplines. We will present the process by which we select, edit, and publish students’ research as well as solicit other Honors students’ participation in our JMURJ Honors course.

Advisor: Kevin Jefferson

- Poster #88, Sessions 1 and 2



CHUSS, NICOLETTE AND ASHLEY HILLYARD

Hearing Studies in Mice: The Effect of Pre-Pulse Inhibition on the Acoustic Startle Response

The purpose of this study pertains to hearing in the species *Peromyscus maniculatus* (deer mice). The mice were presented with an acoustic startle-eliciting stimulus (SES) as well as a softer, less intense stimulus, known as a pre-pulse. The study aimed to quantitatively measure whether the pre-pulse stimuli would elicit a diminished reflexive response (pre-pulse inhibition) to the SES.

Advisor: Lincoln C. Gray, Ph.D.

- Poster: #75, Session 1



DUKES, MIKAYLA AND DEISREE EDEMBA

The Intersection of Sexual Orientation and Race

This project analyzes the intersection of sexuality and race in American society. It will explore how these two concepts have developed over time and how they have intersected with one another. It is a case study of how these cross-cutting cleavages may influence bias toward particular individuals.

Advisor: Michael J. Klein, Ph.D.

- Poster: #89, Session 1

GROUP SYMPOSIUM PARTICIPANTS



FRANKLIN, PAIGE, RYAN ADAMS, AND CAROLINE HENRY

What the Hack is a Hacker?

The purpose of this study is to examine the historical tendencies and characteristics of hackers to create a holistic definition of what it means to be a hacker. By analyzing the contents of the “Hacker Classics” list, it was determined that there is not a single, all-encompassing definition of what it means to be a hacker.

Advisor: Philip L. Frana, Ph.D.

- Poster: #92, Session 2

KRAFT, KATHLEEN, AND ALEXANDRA LEPECHA

Developing and Testing a Nutrition Education Curriculum for a Mobile Food Pantry

The objective of this project is to develop a nutrition education curriculum for Neighborhood Produce Market (NPM) volunteers to better engage families and community members by providing food samples, recipes, and nutrition education. Its effectiveness is evaluated using qualitative feedback from NPM volunteers, stakeholders, and community members.

Advisor: Jennifer R. Walsh, Ph.D.

- Poster: #83, Session 1

PROBST, MADISON, AND ELISA MORGAN

Societal Views On Body Modification

This study will explore the American societal view on modifying the body. We examine ethical views of these procedures within our culture in comparison to others, and consider what initiated the need for change. We also consider the difference between a “normal” body and a “desirable” one through the influence of modern media.

Advisor: Michael J. Klein, Ph.D.

- Poster: #90, Session 2

TIMBERLAKE, MORGAN AND NICOLE PHILLIPS

Moral Distress in Critical Care and Emergency Department Nurses

Moral distress is a phenomenon that occurs when a person is unable to carry out what they believe is the ethically appropriate action due to various external constraints. This literature review seeks to explore the interventions that are most effective in reducing moral distress in ICU and ED nurses who have experienced moral distress in practice.

Advisor: Betsy Herron, Ph.D.

- Poster: #73, Session 1

TOPF, KATHERINE AND KATHERINE CHIU

Understanding Awareness and Completion of Advanced Care Directives Among College Students

College students are often a group that is overlooked when it comes to Advanced Care Planning and the completion of Advanced Care Directives (ACD). In this two-part project, assessment of publicly available information and a survey utilizing three instruments with questions pertaining to death, religiosity, and personality questions, were assessed in order to better understand completion rates of ACD among college students.

Advisor: Dayna Henry, Ph.D.

- Poster: #95, Session 2

2019 Commencement

Medallion Ceremony and Reception



Friday, May 3



12:00-2:00 pm

Festival Student and Conference Center Ballroom



All graduating seniors are invited to attend.
Please respond to the invitation by Friday, April 26.

Questions? Contact Tammy Steele,
Executive Assistant at 540-568-7728
or via email at steeletm@jmu.edu.

*The **Honors Symposium** showcases academic research and creative scholarship by JMU Honors students. Through the Honors capstone project, students gain advanced knowledge and skills in their chosen fields and produce substantial research theses or creative projects.*

All Honors College students are expected to publicly present their work and the Honors Symposium is one of several opportunities to do so. The projects presented here represent the range and diversity of work undertaken by Honors College students and highlight the excellence of undergraduate scholarship at JMU.

About the...

JMU Honors College

The Honors College at James Madison University is an academic community engaging highly motivated and intellectually gifts students in exceptional experiences that develop excellence in leadership, scholarship, and service.



JMU Honors College
251 Warren Service Drive
Harrisonburg, VA 22807
www.jmu.edu/honors