

#### Please Read Carefully!

Remove your SLAM Passport from the program.

Add your name and signature to the back of the passport.

Your passport is your personal ticket into SLAM activities.

It will be stamped at the door as you leave each session you attend.

#### DO NOT LOSE IT!

#### Many professors will ask to see your passport as proof of attendance.

- ▶ During Oral Presentations, thematically arranged groups of presentations will be happening SIMULTANEOUSLY in MULTIPLE PLACES on campus. Check your program carefully and decide which you want to attend. You will only be able to attend one group of presentations in each session. Please remain in that session for all presentations.
- ► The Arts Breaks are also happening simultaneously in MULTIPLE PLACES on campus. The performances begin at 1:30 and last for twenty minutes. They will be repeated at 2:00 so you can attend more than one. You only need to attend one to get your passport stamped.
- ► To be eligible for one of the fabulous SLAM door prizes, you must be present at the Closing Celebration at 3:30pm in Belk Auditorium and your passport must have five stamps that show you have attended:
  - Plenary Session II AI Debate AND
  - All 4 other sessions (Oral Presentations I & V, Poster Session III, and Arts Breaks IV)
- ► What next? Select one of the exciting presentation groups from Session I.

  Some may be Standing Room Only, so get there early to get a seat!

#### **HAVE FUN and GET SLAMMED!**

The program cover for SLAM is designed each year by a student in MHU's graphic design program. This year's cover design is by Noah Fasel, and the runner-up selection is by Kiki Palmer. Both designs were displayed as posters around campus.

The SLAM banners hanging above the stage in Moore Auditorium were designed and created for the very first SLAM in 2007 by students in what then was called the Fashion & Interior Merchandising program (which has evolved into our current Fashion Marketing program).



### **The Student Liberal Arts Mosaic**

Mars Hill University April 15, 2025

#### Order of the Day:

8:45–9 a.m. Gathering in Moore 9–9:35 a.m. Opening Ceremony

9:45–10:35 a.m. Oral Presentations Session I 10:45–11:45 a.m. Plenary Speaker Session II 11:45 a.m.–1:20 p.m. Lunch + Poster Session II 1:30–2:20 p.m. Arts Breaks Session IV

2:30–3:20 p.m. Oral Presentations Session V 3:30–4 p.m. Closing Celebration & Prizes

### **Fanfare**

### 8:45 a.m., Moore Auditorium

#### Percussion Ensemble

Elijah "Wyatt" Bell Music Education

Bobby Brookshire Music Education

Isaiah Cedillo Music Education

Logan Clark

Music Education

#### Brian Tinkel, Director

Valentine Ezendu Allied Health Science

Hannah Massey Music Education

Nathaniel Ogden

Music & Musical Theatre

William Pooser

Music Performance

Grace Vella

Music Education

### **Opening Celebration**

### 9 a.m., Moore Auditorium

Invocation Hannah Todd
Welcome Pres. Tony Floyd
Welcome from the SLAM Committee Brad Skinner
Charge to Students, Faculty, and Friends Joy Clifton

## Oral Presentations Session I 9:45 a.m., Various Venues

## What Is It We're Talking About? Belk Auditorium

#### MHU Fthics Bowl Team Demonstration

Alexis Allen Criminal Justice

Ana Paula Andrade

Zoology

Cassie Berry

Interdisciplinary Studies

TJ Burske

Business Administration and Religion & Philosophy

AJ Rivers

Art Therapy

### **Cadenza Unveiling**

## **Broyhill Chapel**

#### The Return to Tradition

Skylar Camby Braxton Robinson
Psychology Psychology

Kiki Palmer Lovelle Williams

Graphic Design/ Art

Communications Cadence Wyatt

Nash Richardson Zoology

Art

### Brain Blitz Owen Theatre

#### Using Math to Win Fantasy Football

Gabe Boone

Mathematics

# A Sour Advantage: Sour Candy's Effects On Cognition, Emotional Regulation, and Decision-Making Under Pressure

Mykayla King Psychology

### Man's Struggle Through Time Ferguson Health Sciences 306

Civilization and Challenge: Late 19th Century Masculine Propensity for Struggle

Scott Casagrande History

#### A Dose of Kindness

### Ferguson Math & Science 135

### The Decline of Volunteerism in Recreation Programs

Hannah Todd Recreation & Sport Management

## Penicillin Derivatives Using Human and Canine NSAIDS and Their Relative Effectiveness

Emma Gouge Chemistry

### **Leaps and Bounds**

### Fellowship Hall

Biomechanical and Mathematical Modeling in Gymnastics
Lia Whitman
Mathematics

Healing Through Creativity: Art Therapy's Impact in Helping Children and Adolescents Cope With Loss

Brooke Grabowski Art Therapy and Psychology

### **Voracious Volunteering Ventures**

Nash 210

How Proper Training and Interest in Tasks Can Help Retain Volunteers at Nonprofits

Charlotte Garcia
Social Work

Kaitlyn Gunderson

Social Work

Holly Luther

Social Work

Correlation Between Hatching Rates and Volunteer Sea Turtle Patrols
Carmen Hughes
Zoology

### Plenary Session II

10:45 a.m., Moore Auditorium

### IS AI OUR FRIEND?

A debate between teams of students and faculty, with audience participation

### Lunch & Poster Presentations Session III 11:45 a.m.

Lunch On your own

#### **Poster Presentations**

### **Redway Dining Room**

- 1. Grace Keaser, Art Therapy and Psychology: Effects of Clay Therapy on Student's Midterm Stress
- 2. Rachel McGovern, Psychology: The Effects of Social Support and Deliberate Rumination on Post-traumatic Growth in Hurricane Survivors
- 3. Allison Page, Psychology: The Examination of Post Traumatic Stress and Growth in Correlation to Rumination
- 4. Leah Wilson, Criminal Justice: How To Break the Cycle of Recidivism: A

- Comparative Analysis of Institutional and Community-Based Rehabilitation Programs
- 5. Hannah Wyatt, Psychology: How Early-life Socioeconomic Status Affects Self-Perceptions of Aging
- 6. Jessica Talbot, Allied Health Sciences: *The Impact of Gender and Race on Blood Pressure in College Students*
- 7. Jordan Hulsey, Community & Nonprofit Leadership: *One Person, No Vote: The American History of Voter Suppression*
- 8. Jocelyn Wente, Biology: Probiotic Supplementation Leads to an Increase in Gastrointestinal (GI) Health of Athletes Who Train Intensively
- 9. Maya Adams, Ecology & Conservation Biology: Shifts in Phenophases of Five Tree Species Over 22 Years: Ecological Implications of Temporal Climate Changes
- 10. Emma Vacha, Zoology: Tracking Possible Basking Shark (Cetorhinus maximus) Breeding Grounds Using Previous Variables via Model Selection Analysis
- 11. Braxton Robinson, Psychology: Understanding Decision Making Abilities of a Soccer Player Through Curiosity

#### **Arts Breaks Session IV**

1:30 p.m., Various Venues

#### Stitching the Soul

**Owen Theatre** 

The 4th Annual MHU Fashion Show Scott Casagrande History

### **Bailey Mountain Cloggers**

**Moore Auditorium** 

A Preview of the Bailey Mountain Cloggers Spring Concert, Romeo and Juliet Bailey Mountain Cloggers

#### Make and Take

Marshbanks 103

The Mars Hill Art Swap

Aydan Ammons Art Therapy and Psychology

Nicholas Tre Barnett

Community & Nonprofit

Leadership

Jason Boucher Psychology

Nialah Garcia

Art Therapy and Psychology

Brooke Grabowski

Art Therapy and Psychology

Grace Hebbert

Allied Health Sciences and

Psychology

Allison Page

Psychology

Daniel Pearsall

Music Performance and

Music Education

Catherina Varela-Ruiz

Psychology

Arina Wade

Allied Health Sciences

### Oral Presentations Session V 2:30 p.m., Various Venues

### Uprooting Weeds & Uplifting Youth

**Belk Auditorium** 

Do Weed Killers Like Roundup Harm Mitochondria (The Powerhouse of the Cell)?

Alina Mueller Biology

Seen, Supported, Protected: Addressing Mental Disparities in Transgender Youth

Aero Seagle Psychology

### **Lattes and Learning**

**Broyhill Chapel** 

Enhancing Education: Insights from the Exceptional Children Conference to Support Diverse Leaders

Jessie Hayles

Integrated Education

Lydia Hildebrand

Integrated Education

Synthesis of Silver-(1)-N-Heterocyclic Carbene Complexes Derived from the Natural Xanthine Products Caffeine and Theophylline

Katie Todd

**Biochemistry** 

#### What We Do and What We Don't Know

#### **Owen Theatre**

What We Know and What We Don't Know: Understanding Incarcerations in Rural Western North Carolina

Christina Hunter
Business Administration

The Circumstances and Effects of Reproductive Health Legislation
Megan Walters
Interdisciplinary Studies

### Getting by with a Little Help from My Friends Ferguson Health Sciences 306

A Survey on the Impact of Hurricane Helene on the MHU Community Elise "RayRay" Ellis Psychology

Brown Bear, Brown Bear, What Do Your See? The Power of Collaboration in Children's Literature

Emma Bridges
Integrated Education
Haley Eddinger
Integrated Education
Kaitlyn Johnson
Art

### Saving the Farm

Ferguson Math & Science 135

Combination De-Wormers Reduce the Level of Barber Pole Worms in Western North Carolina Sheep

Haley Hargus *Zoology* 

Cyanobacteria and Microalgae's Practical Application in Environmental, Agricultural, and Nutritional Fields Through Biotechnology

Bruno Barrera-Hernandez Ecology & Conservation Biology

### Read, Reset, Repeat

### **Bentley Fellowship Hall**

What We Owe Each Other: The Disconnect Between Student Learning and Student Living

Alexis Allen Criminal Justice

Book Boundaries: Why are Books Banned and Censored?

Cassie Berry Hannah Rowe

Interdisciplinary Studies Elementary Education

TJ Burske Janiah Watkins

Business Administration and Conservation Biology and

Religion & Philosophy Zoology

Riley Gall Nic Varner Psychology English

Jordan Hulsey

Community & Nonprofit

Leadership

### Closing Ceremony & Prizes 3:30 p.m., Belk Auditorium

Please bring your completed passport with five session stamps to be eligible for the prize-drawings.

#### **Abstracts**

#### **Oral Sessions**

#### **Biomechanical and Mathematical Modeling in Gymnastics**

Lia Whitman

Many people are familiar with gymnastics as a sport, but fewer understand its full effect on the body. This paper aims to bridge that gap by exploring the connection between theoretical biomechanics and practical application through mathematical models and computer simulations. By analyzing key concepts such as rotational dynamics, joint reaction forces (JRFs), ground reaction forces (GRFs), and joint stiffness, this research seeks to identify optimal movement strategies and preventive measures against common gymnastics injuries. Central to this discussion are simulation models that provide a deeper understanding of joint loading and muscle activation during both routine and high-risk gymnastic maneuvers.

#### **Book Boundaries: Why are Books Banned and Censored?**

Cassie Berry, TJ Burske, Riley Gall, Jordan Hulsey, Hannah Rowe, Janiah Watkins, Nic Varner

Banned books are a hot topic right now due to social media, politics, and literacy rates. Recently social media like TikTok has older banned books, such as Animal Farm, being looked at through a modern lens. With Project 2025, some people are a little worried about the effects some of these policies will have on banned books and critical thinking. Finally, with literacy rates increasing every year more people are reading in the US; this allows them to choose if they want to read banned books

# Brown Bear, Brown Bear, What Do Yo See? The Power of Collaboration in Children's Literature

Emma Bridges, Haley Eddinger, Kaitlyn Johnson

Science of Reading research reveals that the brain is hardwired for learning oral communication skills but requires explicit instruction for learning to read written language. Therefore, the importance of early literacy development is crucial for later reading success. Illustrations and language play are two vital text features for children's literature. Bill Martin Jr. and Eric Carle are two of the authors that utilize these features. This presentation will introduce their signature styles through some of their famous texts. Participants will enjoy an interactive presentation that includes the opportunity to create a replica of the author's tissue paper collage illustrations.

### **Cadenza Unveiling: The Return to Tradition**

Skylar Camby, Kiki Palmer, Nash Richardson, Braxton Robinson, Lovell Williams, Cadence Wyatt

The 2025 Cadenza Literature and Arts Magazine at SLAM (Student Literary and Arts Movement) is to continue a cherished tradition at Mars Hill University, allowing students to showcase their poetry, prose, and artistic. By presenting the Cadenza at SLAM, we aim to celebrate the rich history and significance of the publication within our campus community. Attendees will have the opportunity to learn about the creative process behind the Cadenza, acknowledge the artists and writers for their artistic achievements, and foster a supportive environment where creativity thrives. Through this presentation, we seek continue the legacy of the Cadenza as an essential part of Mars Hill University's cultural heritage.

# Civilization and Challenge: Late 19th Century Masculine Propensity for Struggle

Scott Casagrande

Masculine virtue and notions of "American Exceptionalism" fueled the furnace of men's ambitions throughout the Industrial Age. Stories of war heroes and conquerors of the "savage" West permeated American culture in the late 1800s. These stories perpetuated a community that placed martial prowess and virile mightiness at the zenith of manly virtue and encouraged these characteristics to be the primary governing force behind American values and society. Following the Mexican-American War (1846), the Civil War (1861), and the perceived "closing" of the western frontier in 1890, Americans no longer faced any direct external or internal threats and had established territorial control over the breadth of North America. As a result of this relative peace and stability, some wealthy and influential white men feared becoming weak, effeminate, and "over civilized." This caused them to look for new ways to prove their masculinity. For generations, the idolized American man had faced some great challenge which tested his resolve and made him a paragon of masculine virtue. In the process, they also sought to curb the progress of those that they deemed "others:" women, foreigners, or members of "inferior races." If there was no apparent challenge on the horizon, many upper crust men of America felt as though they had to make one of their own. Theodore Roosevelt, twenty-sixth president of America, characterized this value system and proliferated it further during his presidential terms (1901-1909).

# **The Circumstances and Effects of Reproductive Health Legislation** *Megan Walters*

For the last century and a half, reproductive healthcare access has been a major issue debated in politics. Over the years, numerous pieces of legislation have been enacted, revoked, or reinstated regarding reproductive healthcare as political goals and social climates have shifted. The question is: with reproductive health questions churning effectively since women have been having babies, why has a legal consensus around reproductive rights not been reached? When did legislation dictating the legality of access to reproductive healthcare begin? This presentation will look at the historical social, political, religious, and medical circumstances and effects of reproductive legislation, focusing in on the aspects of abortion, contraception, and family planning.

# Combination De-wormers Reduce the Level of Barber Pole Worms in Western North Carolina Sheep

Haley Hargus

The most common and deadly parasite of sheep is Haemonchus contortus. Ways to eliminate these parasites have centered around pasture management and different de-worming strategies. The warm wet weather of Western North Carolina makes it difficult to manage parasites. This experiment explores specific de-worming strategies. Individual classes of de-wormers have been unable to control these parasites. The purpose of this experiment is to look at data using two different classes of de-wormers at the same time. The goal of this study was to compare data from the control groups and then data from the treatment groups to see if the parasite burden would be decreased below clinical significance. The results shown supported that two classes of de-wormers are more effective than one class of de-wormer alone. This study could help provide solutions to the huge economic losses in the sheep industry from increased morbidity and mortality due to parasitism.

## Correlation Between Hatchling Rates and Volunteer Sea Turtle Patrols Carmen Hughes

Sea turtles have been on the endangered species list for over fifty years. Despite this legacy, human activity continues to negatively impact sea turtle nesting sites, and ultimately the turtles themselves. Volunteer patrols, particularly on the eastern U.S. coast, have been vital to sea turtle protection efforts since the 1990s. The goal of this study was to see if there was a correlation between hatchling rates and volunteer sea turtle patrols. Hatchling success data for North and South Carolina was obtained from the Sea Turtle Monitoring System and volunteer numbers were collected from the patrol organizations. A linear regression between volunteer numbers and hatchling success demonstrated no statistical significance. This suggests that hatchling success rate is not related to the amount of volunteer patrols, however, this study was limited a small sample size. More research is necessary to determine the true effect of volunteer patrols on hatchling success.

# Cyanobacteria and Microalgae's Practical Application in Environmental, Agricultural, and Nutritional Fields Through Biotechnology

Bruno Barrera-Hernandez

As the world continues to face challenges related to undernutrition, agricultural problems, and ecological stability, solutions in each of these fields are actively being sought. Cyanobacteria and other microalgae demonstrate significant potential in all three areas due to their ability to retain nutrients, enhance agricultural efficiency, and enrich ecosystems with vital nutrients. Microalgae can compartmentalize specific nutrients in their cell's organelles. Cyanobacteria can be commercially harvested on a large scale while providing a method of ecological remediation. By gathering data on the different output methods and cost-benefit analysis, we can compare microalgae to other resources to provide an efficient solution to previously mentioned challenges.

### The Decline in Volunteerism in Recreations Programs

Hannah Todd

This presentation highlights the decline in volunteerism in recreation programs and proposes solutions like targeted recruitment, flexible volunteering opportunities, and fostering a positive volunteer culture. Strategies can increase volunteer retention and strengthen community bonds. Explore strategies to address the decline in volunteerism in recreation programs. Learn how targeted recruitment, flexible roles, and a positive volunteer culture can boost retention, enhance program quality, and reduce reliance on paid staff, ultimately strengthening community bonds and creating a lasting impact in the recreation sector.

## Do Weed Killers Like Round-Up Harm Mitochondria (the powerhouse of the cell)?

Alina Mueller

Weed killers, or herbicides, are widely used in agriculture, but their potential impact on human and environmental health remains a concern. This study investigated the effects of Round-Up, a common herbicide, on mitochondrial function. Mitochondria, often called the "powerhouses of the cell," are responsible for producing energy, and any disruption to their function can lead to cell damage and health problems. Understanding these effects could help improve regulations on herbicide use and inform public health policies. Do the positive aspects of pesticide use outweigh the negatives, or should their use be better controlled?

# Enhancing Education: Insights from the Exceptional Children Conference to Support Diverse Learners

Jessie Hayles, Lydia Hildebrand

The presentation looks into the insight gained from attending the Exceptional Children's Conference in Greensboro, North Carolina. As new educations, we were able to explore a range of strategies and ideas aimed to improve both general education and special education. Topics like behavior management, supporting students with limited communication, integrating technology, and setting effective goals for students. By incorporating these 21st- century ideas, educators are able to foster a more positive, inclusive, and effective learning environment. Our motivation for presenting at SLAM is to share the things that we have learned with a broader audience, aiming to improve the education experience for all students. We believe that raising awareness of these strategies can contribute to improving the public education system.

#### **Ethics Bowl Demonstration**

Alexis Allen, Cassie Berry, TJ Burske, AJ Rivers, Ana Paula Andrade, Ryan Bell Ethics Bowl is a structured debate format in which competing teams collaborate to deliver oral arguments responding to a case study and prompt with ethical dimensions. MHU has participated in the NC Ethics Bowl for 10 years, including this past February, and the theme this year was "Ethics in Health and Wellness." Ethics Bowl represents the application and intersection of many different majors in a "real life" way, both in terms of the students participating and the universality of the cases they address. It is also a very strong networking experience, because the judges are from the nonprofit, corporate and public service sector.

# Healing Through Creativity: Art Therapy's Impact in Helping children and Adolescents cope With Loss

Brooke Grabowski

This study examines grief and bereavement in children and adolescents, exploring whether art therapy strengthens continuing bonds and reduces negative symptomatology after a family member's death. The purpose of this study is to highlight and emphasize how art therapy can serve as an intervention and treatment for children and adolescents experiencing bereavement. In a society where death is rarely discussed, children may struggle with its permanence, and societal silence can hinder their grieving process. Continuing bonds offer a way for children to maintain a connection with the deceased, shifting from a physical presence to one rooted in memory. Negative symptomatology can manifest in waves and appears in various ways within this population. By investigating both negative symptomatology and continuing bonds, research can illustrate the complexity of grief. This study focuses on these aspects, integrating art therapy as a nonverbal platform for children and adolescents to better understand death and grief, reconstruct meaning in life without their loved one, and reduce the negative symptomatology that affects daily functioning.

# Learning to Build Stronger Community Within Nonprofit Organizations and Inspire Volunteers to Get Involved Time and Time Again

Charlotte Garcia, Kaitlyn Gunderson, Holly Luther

Through our research we learned how to properly prepare, train, and job match volunteers so they feel valued in their organization and want to volunteer over and over again. Nonprofit organizations who are heavily dependent on volunteers to keep their programs running smoothly, find that improving their volunteer experience results in volunteer retention.

# Penicillin Derivatives Using Human and Canine NSAIDS and Their Relative Effectiveness

Emma Gouge

Penicillin, an antibiotic discovered in 1928 has long been synthesized using different derivatives, including varying functional groups, and tested for their strength against bacteria. The research in this presentation will discuss the effectiveness of attaching a human NSAID, Ibuprofen and a canine NSAID, Carprofen to the original penicillin structure and comparing the results of each. This will be done by first turning the carboxylic acid functional groups on the NSAIDS into acid chlorides, followed by reaction with penicillin. Since carprofen has more electronegative atoms and ring structures, it is hypothesized that the carprofen penicillin will be a stronger antimicrobial than the human NSAID.

# Seen, Supported, Protected: Addressing Mental Health Disparities in Transgender Youth

Aero Seagle

The transgender community has long been a target of discrimination and erasure in the United States, both historically and in the present day. This study seeks to answer the question: Does the presence of social support and protective legislative acts reduce rates of depression and gender dysphoria in transgender youth and adolescents? The purpose of this research is to emphasize the critical need for supporting the transgender community—both on a personal level and through policy—while also shedding light on the significant mental health disparities they experience in their daily lives. The study's methodology involves a comprehensive review of peer-reviewed research articles to examine the impact of social support and legislative protections on the mental health of transgender youth.

# A Sour Advantage: Sour Candy's Effects on Cognition, Emotional Regulation, and Decision- Making Under Pressure

Mykayla King

This study aims to research how sour candy affects an individuals' cognitive and emotional processes when making decisions under pressure. If individuals ingest sour candy while in a high stress environment, then the individual will display a more reflective thought process, a higher level of confidence and a better performance. Sour candy may act as a quick and practical intervention to overcome the loss-focused thinking, allowing individuals to approach high-pressured situations with increased confidence and calculated risk taking. This research could lead to finding a successful intervention that can be used in academic, athletic and workplace settings. It is predicted that sour candy can interrupt the thought process through its sour taste as well as increase confidence and positivity through the candy aspect of the food. These qualities, together, I believe can help many deal with anxiety and stress in high pressure situations, rather than having a subpar performance.

## A Survey on the Impact of Hurricane Helene on the MHU Community

Elise "RayRay" Ellis

How does social support impact student wellbeing after a natural disaster? Following the devastation of Hurricanes Helene and Milton, students in Dr. K's PSY220 Research Methods class, including myself, set out to examine the psychological effects of these events on the Mars Hill student body. Through a longitudinal study using various questionnaires, we explored different factors influencing post-disaster mental health. Each student developed a unique research question within this framework. My research focuses specifically on first-year students and analyzes whether certain sources of social support—family, friends, significant others, or the campus community—play a greater role in fostering recovery. By understanding these dynamics, we aim to provide insights that can help universities develop more effective resources to support students in times of crisis

## Synthesis of Silver(I)-N-Heterocyclic Carbene Complexes Derived From the Natural Xanthine

Katie Todd

Silver(I)-N-heterocyclic carbene (Ag-NHC) complexes have garnered significant interest for their antimicrobial and anticancer properties. This study explores the synthesis of Ag-NHC complexes derived from caffeine and theophylline, leveraging their unique electronic structures to enhance biological activity. Given silver's well-documented antimicrobial effects and the potential of purinederived ligands, it is hypothesized that these complexes will exhibit improved efficacy against bacterial resistance and cancer cell proliferation. The synthesis, characterization, and biological evaluation of these novel Ag-NHC complexes will be conducted to assess their stability, cytotoxicity, and antimicrobial potential. This research aims to provide insights into their mechanisms of action and therapeutic potential by investigating their interactions with bacterial and cancerous cells. The findings could contribute to developing novel silver-based therapeutics capable of overcoming microbial resistance and advancing cancer treatment

### **Using Math to Win Fantasy Football**

Gabe Boone

This presentation explores how mathematical strategies can give one an advantage in fantasy football. It covers key aspects of success, including drafting strategies, managing lineups, and making trades, while emphasizing the importance of adapting to changing player performance and injuries throughout the season. The presentation also discusses playoff preparation and analyzes the role of probability and projections in improving one's chances of success. Through examples and statistical insights, it demonstrates how consistent, informed decision-making leads to better outcomes in fantasy football.

## What We Know and What We Don't Know; Understanding Incarceration in Rural Western North Carolina

Christina Hunter

This research analyzes existing literature on the relationship between stable housing and reincarceration rates in rural Western North Carolina. The literature reviews examines whether individuals with stable housing experience lower reincarceration rates compared to those without. Additionally, this literature review explores how the literature defines stable housing and its impact on recidivism. Findings in the literature suggest that access to stable housing reduces the likelihood of reincarceration. Missing from the literature is data specific to the context of formerly incarcerated residents of rural Western North Carolina, which could help inform housing and incarceration policies, as well as public and private reentry support

# WHAT WE OWE EACH OTHER: The Disconnect Between Student Learning and Student Living.

Alexis Allen

This session examines Hegel's philosophical theory of Spirit and analyzes our ideas and notions about school spirit at MHU. The contrasting ideas of school spirit between the classroom/athletics and dorm life.

Three guestions to ask yourself that will be examined:

What is "school spirit"?

What is "community"?

And most importantly, What do we owe each other?

#### **Poster Sessions**

### **Effects of Clay Therapy on Students' Midterm Stress**

Grace Keaser

This study shows the effects that different forms of clay therapy can have on the stress levels of students during midterms. There were three different clay groups, free use clay therapy and two structured clay groups. The two different structured clay groups include a pinch pot group and a platonic form clay group. The hypothesis is that structured clay therapy will provide a significant stress decrease compared to the free use group.

#### The Effects of Social Support and Deliberate Rumination on Posttraumatic Growth in Hurricane Survivors

Rachel McGovern

Hurricane Helene devastated many parts of the United States in late 2024. The survivors of this natural disaster were left to face significant psychological challenges, such as post-traumatic stress disorder (PTSD). Conversely, survivors of traumatic events can also experience post-traumatic growth (PTG), the occurrence of positive psychological changes following trauma. Understanding the factors that promote PTG is critical to supporting recovery in survivors. This study explored how perceived social support, feeling supported by others, and deliberate rumination, intentionally reflecting on trauma, influenced the experience of PTG among MHU students affected by Hurricane Helene. It was hypothesized that higher perceived social support would lead to higher PTG, with deliberate rumination acting as a mediating variable. By investigating these relationships, this research provides insights into the factors that foster PTG and psychological recovery in natural disaster survivors. These findings help to inform effective recovery strategies, guiding mental health treatment and support for the survivors of Hurricane Helene and other similar events

## The Examination of Post Traumatic Stress and Growth in Correlation to Rumination

Allison Page

The purpose of this research is to examine the post-traumatic stress and growth in correlation to rumination following Hurricane Helene. Trauma is an emotional response to a distressing event. Post-traumatic growth refers the positive psychological response; post-traumatic stress being the negative response. Rumination is repetitive thinking about an experienced distressing event. Two types of rumination are being examined in this research which are deliberate and intrusive. Deliberate rumination is the act of intentional reflection while intrusive rumination is unintentional thoughts following trauma. Previous research shows that PTG and PTS often coexist, suggesting growth following trauma, with rumination serving as a mediating factor in this process. This research hypothesizes that those who engage in deliberate rumination will show significantly more signs of PTS.

# How To Break The Cycle of Recidivism: A Comparative Analysis of Institutional and Community-Based Rehabilitation Programs

Leah Wilson

positive aging for all.

The United States has a five-year recidivism rate of 70%, highlighting a critical failure in the reintegration of formerly incarcerated individuals. Through this research, the effectiveness of rehabilitation programs both inside correctional institutions and on the community level will be explored to create a multifaceted approach to reducing recidivism. By synthesizing scholarly literature, this research will examine the strengths and limitations of institutional and community-based rehabilitation programs, including, but not limited to, education-focused, sports- focused, and religion-focused programs. Furthermore, policy recommendations that bridge gaps between institutional and community efforts will be discussed, aiming to create a cohesive strategy for successful reintegration. This research contributes to the ongoing conversation on criminal justice reform and the role of evidence-based programs in reducing incarceration rates.

## **How Early-life Socioeconomic Status Affects Self-Perceptions of Aging** *Hannah Wyatt*

Aging is often viewed as an inevitable biological process, yet how we perceive our own aging is deeply shaped by our own early-life experiences. Socioeconomic status (SES) in childhood plays a critical role in shaping lifelong opportunities, access to resources, and even internalized beliefs about aging. Individuals form lower SES backgrounds may develop more negative perceptions of aging due to lifelong financial stress, health disparities, and societal messages that equate aging with decline. Conversely, those from higher SES backgrounds may associate aging with stability and longevity, benefiting from early access to healthcare, education, and social capital. This research explores the long-term influence of early-life socioeconomic status on self-perceptions of aging, examining how childhood conditions shape the way individuals view their own aging process. By understanding these connections, we can challenge assumptions about aging, highlight the lasting effects of inequality, and advocate for policies that promote healthier and more

## **The Impact of Gender and Race on Blood Pressure in College Students** *Jessica Talbot*

In 2017, the American Heart Association, in collaboration with nine other health organizations, revised the criteria for diagnosing hypertension, lowering the threshold for elevated blood pressure and removing age-based categories. They established that a normal blood pressure range is less than 120/80 mmHg for individuals under 65, regardless of age. However, given that blood pressure can vary based on factors such as age, race, and gender, the aim of this study was to examine blood pressure levels in college students (ages 18-24) across gender and racial groups. We hypothesize that significant differences will emerge between males and females, as well as among Caucasians, African Americans, and Hispanics. By identifying these disparities, universities can design more tailored wellness programs that promote cardiovascular health among their students. Additionally, the results may encourage further research into how blood pressure varies across different demographic factors such as age, gender, and race

## **One Person, No Vote: The American History of Voter Suppression** *Jordan Hulsey*

This presentation will examine the history of voting rights in the United States, starting with the Civil War-era constitutional amendments. Throughout the nation's history, various groups have faced significant barriers to exercising their civic duty. The goal of this presentation is to inform voters about this history and inspire them to fully engage in the democratic process. Drawing inspiration from Carol Anderson's book One Person, No Vote, this presentation will provide practical information on how to register to vote, navigate the voting process, and equip participants with resources to stay informed during future elections. Additionally, I will share my personal experiences with voter engagement during Fall 2024 as part of my Community and Nonprofit Leadership Internship, highlighting the importance of active participation in the electoral process.

# Probiotic Supplementation Leads to an Increase in Gastrointestinal (GI) Health of Athletes Who Train Intensively

Jocelyn Wente

Athletics demand hours of intense training every day, which results in better conditioning and generally better health. However, prolonged training can have some negative effects on both physical and mental health. Athletes must balance daily life and commitment to numerous practices that can create significant amounts of stress. Such stressors have been shown to cause health complications that originate from a damaged gut microbiota. This can lead to gastrointestinal (GI), mental health, and immunity concerns. Previous studies have shown how probiotics can influence the human mind and body, but the effect of probiotics on athletes has also gained considerable interest within the last decade. The use of a combination of probiotic strains such as Lactobacillus and Bifidobacterium, in the form of a capsule, is shown to reduce potentially harmful symptoms associated with gut and mental health often experienced by athletes under stressful conditions. The most common benefit athletes can have from taking probiotics is improvement in GI Function. Implementing probiotic supplements into athlete's daily lifestyle could also create numerous other health benefits such as an increase in immunoglobulin antibodies, an increase and essential amino acids and hormones that contribute to mental wellbeing, decreased inflammation, and accelerated bone and muscle recovery.

# Shifts in Phenophases of Five Tree Species Over 22 Years: Ecological Implications of Temporal Climate Changes

Maya Adams

Climate change alters the phenophases of tree species, with potential implications for ecological interactions and biodiversity. Changes in leaf-out and flowering timing affect pollinator relationships, food availability for herbivores, and broader ecosystem stability. This study analyzed 22 years of phenological data from the citizen science platform Nature's Notebook for five tree species tracked across North Carolina: flowering dogwood (Cornus florida), white oak (Quercus alba), pin oak (Quercus palustris), sugar maple (Acer saccharum), and red maple (Acer rubrum). The timing of leaf-out and flowering were compared to spring maximum temperatures and precipitation averages. Results indicated that the increase in temperature and precipitation were associated with earlier phenological events across all species, however, responses varied per species. A. rubrum exhibited the least change in phenology, suggesting resilience to climate variability, while Q. palustris showed the most significant shifts, indicating greater sensitivity. These phenological changes could disrupt ecological interactions, potentially impacting biodiversity and ecosystem health. This study provides valuable insight for guidance towards conservation efforts, helping to identify species phenological plasticity and prioritizing management for those more vulnerable to climate change

# Tracking Possible Basking Shark (Cetorhinus maximus) Breeding Grounds Using Previous Variables via Model Selection Analysis

Emma Vacha

Conservation for endangered basking sharks (Cetorhinus maximus) is challenging due to an unknown population size and lack of breeding data. Their migratory nature and the lack of visible courtship hinders conservation efforts. This study analyzed historical sighting data (1886-2024) from potential breeding sites along with theorized breeding predictors (water temperature, chlorophyll-a concentration, dissolved nutrients, etc.) to understand distribution better during breeding seasons. Forward and backward stepwise selection analysis was performed to compare the number of occurrences for each site compared to environmental variables, neither model significantly predicts distribution. While from the stepwise model selections variables including latitude, dissolved phosphate, dissolved nitrate, and chlorophyll-a concentrations showed some correlation, statistical support was weak. ANOVA analysis revealed significant differences between hypothesized breeding and nonbreeding sites. These findings reveal more on-ground studies need to be conducted to see day-to-day and localized variables for a more comprehensive understanding of basking shark breeding grounds.

# Understanding Decision Making Abilities of a Soccer Player Through Curiosity

Braxton Robinson

What if there was a way to recruit the perfect soccer player? It wouldn't be based solely on their statistics; that's only half the story. A better approach would add problem-solving and decision making abilities. This study investigates the relationship between domain-specific curiosity and creative performance among collegiate soccer players. Utilizing a newly developed SOCCER (Scenarios and Outcomes of Creativity and Curiosity and the Evaluation of Responses) Test and Soccer Achievement Inventory, the research presents participants with soccer-related scenarios tailored to their type of curiosity. This presentation will explore whether participants generate more creative soccer plays when scenarios align with their curiosity type. This will offer insights into the intricate relationship between curiosity and creativity in athletic performance. The goal is to help teams, coaches, and players understand team dynamics and perform to their highest potential.

#### **ARTS BREAKS**

#### 'Make and Take: The Mars Hill Art Swap'

Aydan Ammons, Nicholas "Tre" Barnett, Jason Boucher, Nialah Garcia, Brooke Grabowski, Grace Hebbert, Allison Page, Daniel Pearsall, Catherina Varela-Ruiz, Arina Wade

The Arts for Community Change class invites you to participate in our 'Make and Take: The Mars Hill Art Swap'. During the SLAM Arts Break, we are asking students and community members to create artwork for the Little Free Art Libraries that we recently erected on campus and the Mars Hill Greenway. A variety of mixed media options will be available. Participants can then write a note on the back of their artwork to share its personal meaning or inspiration. No art experience necessary. The Community Art Library Project is an opportunity to connect people through creativity while making art more accessible.

### Stitching the Soul: The 4th Annual MHU Fashion Show

Scott Casagrande

The 4th Annual MHU Fashion Show is the latest in a line of yearly showcases of contemporary college fashion. College is a period of fundamental change in the lives of each student. Finding one's identity in a sea of uncertainty can be challenging, even scary for some young people. Fashion is one way many people express their identities and interests. By partnering with models from diverse walks of life, the overarching goal of this year's show is to demonstrate full freedom of expression from a wide variety of living primary sources. Models are encouraged to wear clothes that convey their identities and exhibit their problems and passions. This year's show aims to be as bold and brash as ever before.

#### **Romeo and Juliet**

Bailey Mountain Cloggers

The Bailey Mountain Cloggers Present: Romeo & Juliet, the greatest love story retold through clogging and dance. Experience a preview of our spring concert, Romeo & Juliet. Dances will include several forms of Southern Appalachian clogging to modern day music to tell the iconic Shakespeare story.

### The SLAM Committee

Mr. Ryan Bell, Director of First Year Academic Success and Advising Mrs. Joy Clifton, Assistant Professor of Health & Human Performance, Committee Chair

Dr. Amanda Knapp, Professor of Chemistry
Dr. Jonna Kwiatkowski, Professor of Psychology & Art Therapy
Ms. Amber Molnar, Assistant Dean of Students/Director of Residence Life
Dr. Jennifer Roberts, Assistant Professor of Chemistry
Ms. Misty Rondeau, Assistant Professor of Woodwinds
Mr. Brad Skinner, Student Representative
Mr. Mike Thornhill, Director of Communications
Ms. Hannah Todd, Student Representative

## **Special Thanks To**

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