2026
RESEARCH DAY
+ GC Journeys

4th Annual
Georgia College & State University
RESEARCH DAY

April 14 - 15, 2026

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Acknowledgements

We are excited to host Georgia College & State University's 4th Annual Research Day! This year's event will showcase over **280 presentations** from disciplines and departments across campus.

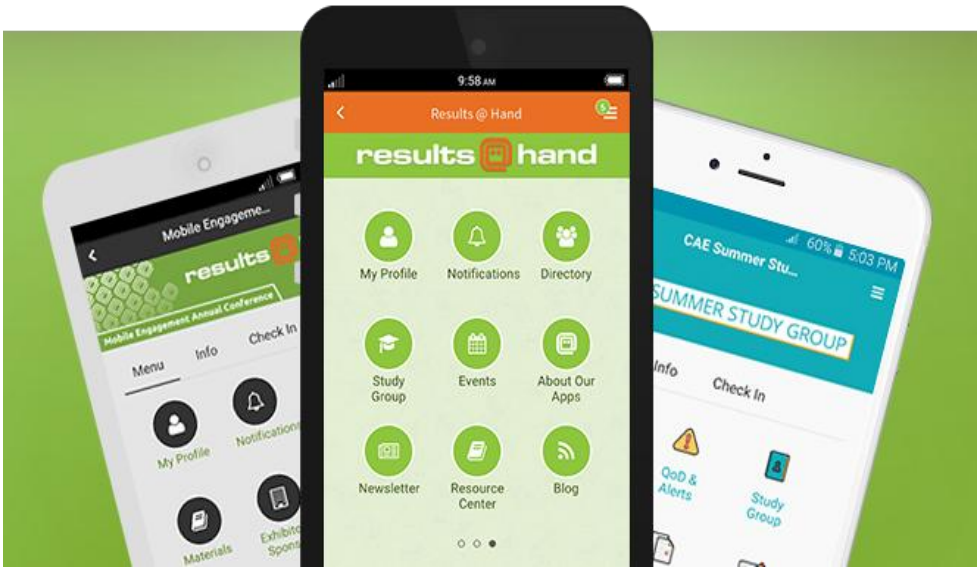
For all of the support for this year's Research Day, the Office of Mentored Undergraduate Research & Creative Endeavors (MURACE) gives special thanks to:

- Office of the Provost & Academic Affairs
- Auxiliary Services
- Barnes & Noble
- College of Education Graduate Programs
- Digital Humanities Collaborative
- Early College
- GC Journeys
- Ina Dillard Russell Library
- Phi Kappa Phi Society
- Science Education Center
- SODEXO
- Student Life
- Student Undergraduate Research Circle (SRC)
- Student Succes and Career Development
- The Career Center
- The Corinthian
- The Graduate School
- The John E. Sallstrom Honors College
- The Women's Center
- The Writing Center
- Women's & Gender Studies

Thank you also the all the faculty mentors and moderators for your unwavering support of undergraduate research and creative endeavors and for GCSU's Research Day!

Download the Research Day 2026 app:

Download the ConferenceBeat Event App to prepare for GCSU Research Day 2026. Resources, attendee directory, notifications... all at your fingertips!



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You can also access the app from your smartphone, tablet, or PC's web browser with the following URL: **https://app.resultsathand.com/gcsu2026**.

Web app works on most browsers (current version), including: Google Chrome, Firefox, Apple Safari, Microsoft Edge

Locating the GCSU Research Day 2026

The ConferenceBeat Event App by Results at Hand supports multiple events.

To access **GCSU Research Day 2026**, tap the **Current Events** tab. Locate **GCSU Research Day 2026** from the listing and tap to open the event details. To open the event, tap the **Go to Event** button.

Refresh Events for the Latest Updates

Don't see your event on the listing? Tap the **Refresh Events** button on the bottom of the app's homescreen to ensure you're running the latest app version.

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results hand

Schedule Overview

April 14th, 2026

Research Day Kickoff

Magnolia Ballroom

6:30 PM – 7:45 PM **Research Day Kickoff Keynote Address & Saladin Scholars Award Ceremony**
Magnolia Ballroom

8:00 PM – 8:30 PM **Dessert Reception**
Magnolia Ballroom

April 15th, 2026

Campus-wide

8:00 AM – 11:15 AM **Poster Presentation Sessions Check-in**
Magnolia Ballroom

8:20 AM – 12:00 PM **Women's & Gender Symposium Panels**
Peabody Auditorium

8:30 AM – 11:15 AM **Poster Sessions & Writing Center Poster Competition**
Magnolia Ballroom

- 8:30 AM – 9:15 AM **Poster Session I:** Psychological Science, Government and Sociology, Teacher Education, Music Therapy, Art, Art History
- 9:30 AM – 10:15 AM **Poster Session II:** Chemistry, Physics, & Astronomy, Information Systems and Computer Science, English, Philosophy, Religion, & Interdisciplinary Studies, Communication, Digital Humanities
- 10: 30 AM – 11:15 AM **Poster Session III:** Biological & Environmental Sciences, Exercise Science, Health and Human Performance, Nursing, Public Health, GC Journeys

9:00 AM – 9:10 AM **Research Day 2026 Welcome Address**
Magnolia Ballroom

9:30 AM – 10:15 AM	**First-Year Writers' Showcase** *Magnolia Ballroom*
9:30 AM – 4:00 PM	**Oral Presentation Sessions Check-in** *A&S Atrium (outside A&S Auditorium)*
10:00 AM – 12:00 PM	**Oral Presentation Sessions** *Atkinson 107 & 108, A&S 270, 272, 275, &370, Health Sciences Building 201 & 202*
11:00 AM – 12:00 PM	**Featured Talk by Dr. Scott Huettel: What is special about social decision making?** *A&S Auditorium*
12:00 PM – 1:00 PM	**Lunch Break – Campus Barbeque** *Front Campus*
1:00 PM – 4:00 PM	**Oral Presentation Sessions** *Atkinson 107 & 108, A&S 270, 272, 275, &370, Health Sciences Building 201 & 202, Willow Room, Music Rehearsal Hall*
1:00 PM – 2:30 PM	**3-in-3 Competition** *Pat Peterson Museum Education Room*
1:05 PM – 4:30 PM	**Women's & Gender Symposium Panels** *Peabody Auditorium*
2:00 PM – 3:15 PM	**Liberal Arts Panel: Connecting College to Career** *A&S Auditorium*

	April 15th			
8:00 AM	**Check-in begins** in *Magnolia Ballroom* for poster presenters			**WGS Check-in** *Peabody Auditorium*
9:00 AM	**Poster Sessions** & Writing Center Poster Competition **Poster Session I:** Psychology, Government & Sociology, Education, Music Therapy, Art **Poster Session II:** Chemistry, Physics, & Astronomy, Information Systems & Computer Science, English, Philosophy, Religion, & Interdisciplinary Studies, Communication **Poster Session III:** Biological & Environmental Sciences, Health Sciences		**Welcome Address** *Magnolia Ballroom*	**Women's & Gender Symposium Panels** *Peabody Auditorium*
10:00 AM		**Check-in begins** in *A&S Atrium* for oral presenters	**First-Year Writer's Showcase** *Magnolia Ballroom*	
11:00 AM		**Oral Presentation Sessions** *Atkinson 107 & 108, A&S 270, 272, 275, &370, Health Sciences Building 201 & 202*	**Featured Talk by Dr. Scott Huettel: What is special about social decision making?** *A&S Auditorium*	
12:00 PM	**Lunch** *Front Campus*			
1:00 PM	**3-in-3 Competition** *Pat Peterson Museum Education Room*	**Oral Presentation Sessions** *Atkinson 107 & 108, A&S 270, 272, 275, &370, Health Sciences Building 201 & 202, Willow Room, Music Rehearsal Hall*	**Liberal Arts Panel: Connecting College to Career** *A&S Auditorium*	**Women's & Gender Symposium Panels** *Peabody Auditorium*
2:00 PM				
3:00 PM				
4:00 PM				

Poster Presentation Sessions

Magnolia Ballroom

8 :30 AM – 9 :15 AM

Poster Session I:
Magnolia Ballroom

1. Effects of Optimism Bias Priming on Risk Willingness in Skill- and Chance Based Tasks

Savannah Lewis, Sophie Hidalgo, Addy Strickland, Kate Phillips, Mentored by: Dr. Diana Young

Participants are randomly assigned to either a high or low optimism condition and manipulated using a prompt that asks them to consider their best or worst possible self. After taking time to complete this prompt, participants are presented with both skill- and chance-based tasks regarding gambling. They are then asked to go through a series of hypothetical gambles on the computer that relate to the earlier tasks they completed.

2. To Treat or Not to Treat: The Role of Guilt in Strategic Self-Indulgence

Carleigh Wright, Macy Beddow, Addy Strickland, Mentored by: Dr. Whitney Heppner

This study examines the role of guilt in self-indulgence. Participants complete demographic and trait self-compassion measures, receive randomized positive or negative feedback on a cognitive task, reflect on their performance with either a self-compassion or neutral prompt, and then choose either a healthy or unhealthy snack. We expect self-compassion to increase the likelihood of immediate indulgence, decrease future self-indulgence, and lower guilt compared to the neutral condition, suggesting minor indulgences may promote future self-regulation success.

3. The De-Stress Express: A Mobile Craft Cart to Support Student Wellness

Marianna Hall, Shea Pagett, Emily Jarvis, Whitney Heppner, Mentored by: Dr. Whitney Heppner

The "De-Stress Express" is a mobile mental health craft cart developed by the Social Psychology and Wellness Lab and the Office of Student Health and Wellbeing, to provide accessible, low-stigma stress relief for students. Cart engagers completed pre- and post-activity assessments of mood and stress. Paired-samples t-tests showed significant reductions in stress and increases in positive mood, supporting the cart's effectiveness and its potential as a permanent campus wellness resource.

4. Understanding Self-Efficacy's Moderating Role in Teacher Burnout

Jack Roach, Celeste Herrera-Cruz, Hannah Gay, Annabel Young, Allison Piatt, Mentored by: Dr. Ashley Taylor

Our study examines the relationship between school climate and teacher burnout with self-efficacy acting as a mediator. Our data is collected from a survey of 50 rural Georgia teachers. In order to investigate this relationship, we will be conducting a series of analyses using SPSS, including a 2x2 ANOVA.

5. Picture a Veteran": Challenging Stereotypes of Veteran Identity

Alexander Gerlach, Lauren Gibson, Celeste Herrera-Cruz, Mentored by: Dr. Stephanie Jett

U.S. efforts to support reintegration and allocate resources to assist veterans align with the societal goal of honoring and recognizing the service of veterans. However, the media and public recognition often reinforce a narrow stereotype of the average veteran being an older white male. This stereotype alienates young, female, racially diverse, and LGBTQ+ individuals who have served our country. This bias has

the potential to cause practical harms in healthcare screening, support services, and academia, leading to a failure to meet the needed accommodations and support. This study uses an online survey to measure misrecognition among young adults utilizing an investigation and interventional debrief model.

6. Between Service and Self: Thematic Analysis of Veteran Identity Formation

Celeste Herrera-Cruz, Ellen Nathanson, Alexander Gerlach, Mentored by: Dr. Stephanie Jett

This project explored the lived experiences of Veterans and how their identities are shaped by the events that occurred during and after their time in service. To investigate this topic, we conducted a thematic analysis of interviews from a previous project involving a cohort of four Veterans. These interviews were conducted independently and utilized photovoice and lyric analysis methodologies.

7. Visualizing Valor: Narrative Framing and the Reinforcement of Military Stereotypes

Kylie Gregg, Christine Johary, Mentored by: Dr. Stephanie Jett

This study examines how post-9/11 U.S. films portray active-duty service members and veterans, and how these portrayals shape young adults' mental models of military identity. By combining content analysis with an experimental survey, we explore gender, archetype, and emotional framing in film narratives and audience perception.

8. Parenting Styles and Children's Prosocial Behaviors Across the COVID-19 Pandemic

Julia O'Toole, Jae Kinsey, Kylie Gregg, Mentored by: Dr. Tsu-Ming Chiang

This study examines how the shifts in parenting styles throughout the COVID-19 Pandemic are linked to changes in children's prosocial behavior. Using data from parents collected pre-Pandemic (2018-2019) and post-Pandemic (2022-2023), we analyze changes in parenting approaches and children's empathy, helping, and emotional regulation. The hypothesis is that throughout the COVID-19 Pandemic, parenting styles shifted toward gentle parenting and that this supported prosocial behaviors in children.

9. Emerging Adult Mental Health and Technology Use During Pandemic

Caitlyn Balcom, Caitlyn Aleck, Cole Smith, Mentored by: Dr. Tsu-Ming Chiang

The COVID-19 pandemic disrupted key developmental transitions for emerging adults, increasing stress and emotional distress. Indirect impacts, such as lifestyle and economic changes, were stronger predictors of distress than direct health concerns. Technology and social media use skyrocketed, serving as both adaptive and maladaptive coping roles. This study examines emotional well-being and technology use pre-pandemic and five years post-pandemic among students at Georgia College and State University.

10. Traditional Family Values Then and Now: A Comparative Analysis

Bridget Johnson, Evelyn Lessl, Mentored by: Dr. Tsu-Ming Chiang

Family values are the shared beliefs that guide a family's behavior, relationships, and decision-making. The specific focus of the present study examines family values related to religion, gender, ethnicity, and closeness to family members. By comparing earlier data with more recent data, this study provides insights into how the societal trends in traditional family values have evolved or remained consistent over time.

11. Beautiful Minds: Nature Meditation and Prosocial Behaviors

Bridget Mainor, Jessica Goldstein, Bridget Johnson, Mentored by: Dr. Whitney Heppner

Research shows that exposure to nature and meditation benefits individual well-being and prosociality. In this study, participants engage in a beauty-meditation or a comfort-meditation, and are compared on a variety of measures, including mindfulness, connectedness to nature, and prosociality. This study also

explores meditation's impact on rankings of image beauty, both pre- and post-meditation. If our hypothesis is supported, results would suggest that beauty-focused meditations may enhance prosociality by increasing people's perception of natural beauty.

12. **Exploring Extrinsic and Intrinsic Motivation in Decision Making Tasks**
    Mia G. Levy, Aicha Niane, Morgan Gosdin, Callie Driscoll, Mentored by: Dr. Diana Young
    Participants make decisions on tasks using darts and roulette to explore if they are more risk averse depending on their motivation conditions; intrinsic or extrinsic cues.
13. **Tardigrades: Ketamine's Influence on Retention of Classical Conditioned Association**
    Kendall McCabe, Chloe Jones, Hanna Alexandersen, Kara Grieve, Walter Isaac, Mentored by: Dr. Walter Isaac
    We are exploring how Ketamine influences learning a classical conditioning association in tardigrades. While biologists have characteristized tardigrades, little is known about their neurotransmitters. After doing experiments with other substances like cocaine, alcohol, and sucrose, Ketamine peaked our interest. We wanted to see if Ketamine produced an amnesia effect on these microorganisms.
14. **Wavelength of Light Influences Open Field Activity of House Crickets**
    Kara Grieve, Kendall McCabe, Chloe Jones, Sam Cerone, Audrey Meyers, Walter Isaac, Mentored by: Dr. Walter Isaac
    We studied the influence of the wavelength of white, ultraviolet, blue, and green light on house cricket activity levels. Crickets in male and female pairs were tested simultaneously in separate open fields illuminated by the given light wavelength. A GoPro was used to record movement and count lines crossed on the 2cm x 2cm grid below them. Researchers found fewer lines were crossed under white light compared to all other wavelengths, which did not differ.
15. **Tardigrades: Comparing Natural vs. Artificial Sweeteners Using Classical Conditioning**
    Sam Cerone, Jennifer Schaefer, Jessica Berry, Walter Isaac, Mentored by: Dr. Walter Isaac
    Do tardigrades have a preference for sweeteners with caloric value or without caloric value? Utilizing classical conditioning we tested the pure forms of the sweeteners: Stevia, Monk Fruit, Dextrose, Fructose, Aspartame and Saccharine to see if tardigrades would associate sweeteners with or without a caloric value to our conditional stimulus.
16. **Thematic Analysis of Queer Aesthetic and Identity in Rural Georgia**
    Carly Walker, Mentored by: Dr. Stephanie Jett
    This study utilized Photovoice, a qualitative Community-Based Participatory Action Research (CbPAR) technique, to explore how queer GCSU students define their own aesthetic and identity. Participants selected photos responding to the prompt "how do you present yourself to others?" and engaged in interviews and focus groups to explore their identities. I used a phenomenological approach to identify themes around stereotypes, queer identity expression, and safety.
17. **Ants, Appetite, and Adaptation: The Science of Survival Driven Choice**
    Sophia Williams, Stephanie Jett, Mentored by: Dr. Stephanie Jett
    Ants have lived on Earth for over 140 million years. Their ability to survive alongside megafauna like dinosaurs raises an intriguing question: How have they managed to persist for so long despite countless environmental threats? Do ants actively seek out what they need to beat the odds? Ants possess unique features that set them apart from many other species
18. **Can confidence predict accuracy of remembering having lied?**
    EJ Autrey, Cole Smith, Eric Rindal, Mentored by: Dr. Eric Rindal

Available research shows that over time, people can come to believe that their own lies were true. A factor that has not been adequately explored is confidence as a predictor of recalling lying. When lying, liars are likely to repeat the same lie. The current study seeks to determine if confidence is an indicator of accurate memory for having lied.

19. **The Effect of Emotional Music on Memory for Emotional Words**

    Katie Cochran, Emma Smith, Mentored by: Dr. Eric Rindal

    Previous research shows music influences emotion, mood, and attention which can affect memory encoding and recall. Hofbauer et al. (2023) found better free recall with fast, positively valenced music than slow, negative music. Our study examined whether word valence interacts with music valence. Participants are given a list of words while listening to one of four types of music. Their memory was tested. We predict the highest memory performance when music valence matches word valence.

20. **Does Emotionally Valenced Music Affect Memory for Emotional Images?**

    Meredith Peyton, Bella Hunt, Eric Rindal, Mentored by: Dr. Eric Rindal

    Expanding on the findings by Talamini et al. (2022), this study examines how background music tempo and emotional valence influence recognition memory for original, similar, and new images. Participants viewed emotionally varied images from the Open Effective Standardized Image Set while listening to music under the different music conditions. We predict the emotional valence of the music will influence memory for similarly valenced images.

21. **Immediate Feedback and Risk-Taking Across Chance and Skill Domains**

    Makilah Applegate, Elianna Vallianatos, Abigail Martin, Ellison Townsend, Mentored by: Dr. Diana Young

    This cognitive psychology lab study examines whether feedback type influences risky decision-making across different domains. Participants were randomly assigned to one of two conditions: immediate feedback or no feedback. All participants completed both chance-based and skill-based gambling tasks. The study aims to determine how receiving immediate performance feedback, compared to no feedback, affects individuals' risk-taking behavior in different gambling tasks.

22. **Can Reaction Time Predict Accuracy in Recognizing Fabricated Lies?**

    Emma Emmil, Ellison Townsend, Abigail Martin, Eric Rindal, Mentored by: Dr. Eric Rindal

    Past research has found that lying has various effects on people's memory (Rindal & Zaragoza, 2024). Participants viewed a movie then were told to lie. Four to five weeks later, we tested to see if they could accurately recall the details of their lies versus truthful statements. In this study, we sought to determine if reaction time could predict whether participants were able to accurately identify which lies they told.

23. **The Role of Self-compassion and Narcissism on how Previously Treating Yourself Affects Future Goal Success**

    Abigail Martin, Emma Emmil, Rose Thao, Dr. Whitney Heppner, Mentored by: Dr. Whitney Heppner

    Can a little self-kindness, and maybe a little narcissism, help you stay on track with your goals? Our study examines how self-compassion and narcissism shape goal persistence across five days of real-life goal pursuit. Students complete daily surveys tracking self-control, indulgence ("treating yourself"), and progress toward personal goals. We predict that treating oneself may actually support next-day success, especially for those high in narcissism within the self-compassion condition.

24. **The Role of Self-Compassion in Licensing**

    Rose Thao, Emma Emmil, Abigail Martin, Mentored by: Dr. Whitney Heppner

In an initial experimental session, participants were randomly assigned one of two goal strategies to use for the rest of the study: either self-compassion based instructions or basic neutral instructions. Participants completed daily surveys for a week, where they were able to input how many different licensing opportunities they experienced that day, alongside how intentional these licenses felt overall. We expect those in the self-compassion condition to report more indulgence, licenses, and intentionality.

25. **Bothered at Bedtime: Exploring How Partners Disrupt Each Other's Sleep**
    Emma Paliotta, Sara Goodfellow, Grace Tsakonas, Madison Hearn, Mentored by: Dr. Taylor Elsey
    This poster explores the ways partners disrupt each other before falling asleep. We aim to further understand the disruptive behaviors of partners at bedtime. We found that noise (41%), movement (26%), and electronic use (18%) were the most common themes of disruption. Additionally, the three most common responses were nothing (28%), snoring (19%), and movement in bed (15%).
26. **To Hear and To Hold: Cozy Conversations, Cuddles, and Bedtime Security**
    Madelyn Rodriguez, Bella Allen, Avery Kener, Mentored by: Dr. Taylor Elsey
    This poster explores the perceptions people have about how and why their partner makes them feel safe and secure before going to sleep. This study aims to understand what specific behaviors partners do at bedtime that make them feel safe and secure. Findings revealed three main themes of behaviors that make partners feel safe and secure at bedtime: touching (81%), talking (36%), and bedtime activities (7%).
27. **A Not So Perfect Match: Disconcordant Drinking Patterns, Loneliness and Stress & Anxiety**
    Kinsley Stevens, Sarah Galatas, Madison Tschantz, Sarah Hudgins, Mentored by: Dr. Taylor Elsey
    This poster explores the relationship between alcohol disconcordance and feelings of stress and anxiety as mediated by loneliness in romantic relationships. We found that one partner drinking at a higher rate than the other may link to a disconnect within the relationship, causing feelings of isolation and loneliness, and further feelings of stress and anxiety.
28. **Mindset or Environment? Unpacking the Sources of Teacher Burnout**
    Jamaree Brown, Miren Peribonio, Margaret Hankins, Mentored by: Dr. Ashley Taylor
    This project explores whether external factors like school climate, or internal factors like teacher confidence are better predictors of burnout.
29. **Attention Enhancement Through Music**
    Katie Slaten, Mentored by: Dr. Katie Whipple
    This examines the use of structured music therapy interventions to increase attention to task in a middle school self-contained classroom. Using a single-case AB design, baseline and treatment data were collected through levels of prompting across multiple sessions. Results demonstrate improvements in sustained engagement and independence during music-based activities, highlighting the effectiveness of predictable routines, reinforcement, and musical cues in supporting attention.
30. **The Effectiveness of Online Versus In-Person Music Lessons**
    Katie Slaten, Mentored by: Dr. Laurie Peebles
    This explores the effectiveness of online versus in-person music lessons during post COVID-19. Using a mixed-methods approach, this study examines and measures the quality of communication, student engagement, perceived learning effectiveness, and teacher workload. Focusing on survey data and interviews, this discusses both the challenges and benefits of virtual music learning, as well as offering considerations and ideas for furniture instructors and students.

31. **Between Policy and Practice: Dual Language Immersion Teachers' Experiences with structured Literacy in Georgia**
    Grethel Pedroarena, Mentored by: Dr. Suzanna Roman-Oliver
    This study explores how Dual Language Immersion (DLI) teachers in Georgia interpret and implement the state's structured literacy mandate within bilingual classrooms. Using a qualitative-dominant mixed-methods approach, survey and interview data highlight how teachers navigate alignment, uncertainty, and professional judgment across two languages. Findings emphasize the importance of teacher voice, targeted professional learning, and policy guidance that accounts for the unique realities of bilingual and biliteracy-focused programs.
32. **The Intersection Between Race and Class: Attitudes on Immigrant Assimilation in The United States**
    Riley Burns, Mentored by: Dr. Min Kim
    This research focuses on the impact of the intersection between class and race to inform attitudes on the assimilation of immigrants in the United States. Grounded in social identity theory, this study aims to reveal how class impacts these attitudes across racial/ethnic groups. The study employs a secondary data analysis and analyzes the data utilizing a logistic regression to uncover these patterns and the broader societal implications they reveal.
33. **Ideological Extremity and Americans' Confidence in Congress**
    Harrison Goldstein, Mentored by: Dr. Min Kim
    This study examines whether ideological extremity influences Americans' confidence in Congress. Using data from the 2024 General Social Survey, ideological extremity is measured as the distance from the political center on a seven-point scale. The analysis will use ordered logistic regression to test whether individuals at the ideological extremes report lower levels of institutional trust in Congress.
34. **Perceived Financial Insecurity and Self-Reported Happiness in the United States**
    Clark Stovall, Mentored by: Dr. Min Kim
    This study examines whether perceived financial insecurity reduces self-reported happiness among adults in the United States. Drawing on research linking financial strain to subjective well-being, the project tests whether individuals who report lower financial satisfaction also report lower levels of happiness. Using nationally representative data from the 2024 General Social Survey (GSS), the study employs Ordinary Least Squares (OLS) regression to analyze the relationship between financial satisfaction and happiness while controlling for demographic and socioeconomic factors.
35. **The Effect of Information Exposure on Immigration Approval**
    Elizabeth Kiene, Mentored by: Dr. Min Kim
    This project seeks to examine the connection between information exposure and immigration approval in 2024. The three variables examined will be the frequency with which a given respondent reads a newspaper, education level, and the level of mobility from age 16. These combined variables seek to cover information exposure through media, academically, and within one's personal life to get a complete picture of a respondent's influences.
36. **Media effects, Polarization, and Democratic Legitimacy: Social Media Influence and Confidence in Congress**
    Lauren Jones, Mentored by: Dr. Min Kim
    This study examines whether social media exposure affects Americans' confidence in Congress. Using data from the 2024 General Social Survey, ordered logistic regression is employed to test whether

individuals who report greater social media influence express lower levels of institutional trust. The analysis controls for party identification, ideology, and key demographic factors to assess the independent relationship between social media exposure and confidence in Congress.

37. **Scrolling and Skepticism: Media Sources and Confidence in the Federal Government**
    Nevaeh Bohannon, Mentored by: Dr. Min Kim
    This project examines whether Americans who receive political news primarily from social media report different levels of confidence in the United State's federal government compared to those who rely on traditional media sources. Using GSS 2024 data and regression analysis, the study explores how media consumption, political ideology, age, and interpersonal trust shape public confidence in the United State's executive branch and federal government.
38. **Agriculture, Land Use, and Ecological transformation in the Black Belt region**
    Younger Burton, Mentored by: Dr.Veronica Womack
    The analysis of agricultural land and land in use for the Southeastern United States, specifically the Black Belt region . Utilizing GIS to track trends within the region based on ecological changes that agricultural land and otherr categorized land in use has shaped the fertile lands of the Southeastern United States.
39. **Brazil's Fight Against Amazonian Climate Change**
    Trenton Browning, Mentored by: Dr. Steve Elliott-Gower
    The Brazilian government's conservation policies and green initiatives are providing protection for the Amazon rainforest to prevent further damage on the forest and help fight climate change.
40. **Reimagining The American Currency Design Through Art, Security, and Cultural Identity**
    Debbie Pittman, Mentored by: Abraham Abebe
    This project explores the redesign of the fifty-dollar bill as a fusion of art, culture, and advanced security. The redesign features Georgia O'keeffe and her famous paintings, incorporating bright colors, intricate patterns, and advance security elements, ensuring that the fifty-dollar bill is a trusted financial tool while serving as a bright celebration of America's diverse artistic and cultural heritage.
41. **Proposed Passport Design to Improve Aesthetic, Security and Cultural Relevance**
    Hannah Gilleon, Mentored by: Abraham Abebe
    This project focuses on the development of a passport from conception to digital mock up. It explores the techniques used and what value can be added through aesthetics and security.
42. **Designing Trust: Strategic Rebranding in a Private Dental Practice**
    Julia Jensen, Mentored by: Abraham Abebe
    This project is intended to show how strategic rebranding can help small, private healthcare businesses succeed in a competitive environment. By conducting market research, competitor analysis, and design theory, a new brand identity has been created for Legacy Smiles at Hickory Flat. This project aims to show the impact that strategic rebranding can have on small, privately-owned healthcare businesses operating in a competitive environment.
43. **Reimagining the United States Passport Through Architecture, Cultural Symbolism, and Security Design**
    Savannah Carley, Mentored by: Abraham Abebe
    Reimagining the United States Passport explores how graphic design can balance security, cultural symbolism, and visual engagement within government identification. The project combines advanced security features, architectural imagery, and visual systems to create a cohesive and meaningful

document. Through research into document security, architectural history, and user-centered design, the redesigned passport demonstrates how functional objects can move beyond utility to communicate national identity through thoughtful visual experience.

44. **Wish You Were Here: Interactive Game Design for Engagement, Connection, and Learning**
    Savannah Carley, Mentored by: Abraham Abebe
    Wish You Were Here is a travel-inspired board game that explores how graphic design can create engagement, connection, and learning through interactive experience. The project combines strategic gameplay, visual systems, and user-centered design to build an immersive and accessible environment. Through research, prototyping, and user testing, the game demonstrates how graphic design can extend beyond static communication to foster meaningful shared experiences through play.
45. **Vita Anthony: Immateriality through the Material**
    Rose Marzullo, Mentored by: Dr. Elissa Auerbach
    Saint Anthony the Abbot's cult unveils a paradox in medieval Christian visual culture: a saint who renounced worldly goods became the subject of rich material devotion. This poster explores how materiality enabled, rather than contradicted, the transmission of Anthony's ascetic legacy across Europe through three case studies: the 10th century Muiredach Cross, a 12th century fresco at Sant'Angelo in Formis, and a 14th century illuminated manuscript by Roberto d'Oderisio.
46. **Saint Catherine of Siena: How She was Depicted in Art in the Middle Ages**
    Ellen Gunji, Mentored by: Dr. Elissa Auerbach
    Using three artworks depicting Saint Catherine of Siena from the Middle Ages, the development of her cult can be further studied and understood. A very popular saint of her time, Saint Catherine of Siena was an active healer during the time of a plague outbreak in Italy while the Middle Ages came to a close.
47. **Iconographic Themes of John the Baptist in within Medieval Art**
    Mary Ciucevich, Mentored by: Dr. Elissa Auerbach
    This project, using three figures or artifacts of John the Baptist from the Middle Ages, aims to showcase how the iconographic themes of John the Baptist have changed, reflecting the evolution of art through theological iconography.

9:30 AM – 10:15 AM

Poster Session II:
Magnolia Ballroom

48. **The Detection of Heavy Metals Through Porphyrin-Doped Silica Sol-Gels**
    Morgan Collins, Catrena Lisse, Mentored by: Dr. Catrena Lisse
    This research investigated the detection of heavy metals in aqueous conditions through a porphyrin-doped silica Sol-Gel. Preliminary testing confirmed the indication of each metal through the porphyrin indicator. Further characterization of the interaction was conducted while the porphyrin was entrapped within the Sol-Gel. The interaction was observed through colorimetric analysis, UV-Vis spectroscopy, fluorescence spectroscopy, and thermogravimetric analysis (TGA).
49. **Applications of Stepper Motors for Thin Film Synthesis Through Programmable Dip-Coater**
    Marisa Williams, Kaitlyn Jensen, Morgan Collins, Catrena Lisse, Ken McGill, Mentored by: Dr. Ken McGill

This research investigated the development of a dip-coater utilizing a NEMA stepper motor attached to a linear rail guide with a simple relay circuit. A comprehensive breakdown and modern mode of the operation of stepper motors was studied. The thickness of the layers of the thin film after each dip was calculated through gravimetric analysis.

50. **Designing An Undergraduate Forensic Chemistry Experiment On The Levels Of Morphine In Urine Using The GC-MS**
    Emma Lazarz, Mentored by: Dr. Wathsala Medawala
    An undergraduate research experiment that aims to detect and quantify the levels of the morphine in synthetic urine. Morphine is both highly addictive and a highly abused opioid. As mentioned, this experiment aims to detect morphine in synthetic urine by using GC-MS, HPLC, and an ELISA kit.
51. **Lichen Bioindication of Trace Metals: Zinc, Copper, and Lead**
    Carsyn Lewis, Mentored by: Dr. Wathsala Medawala
    By measuring the concentrations of zinc, copper, and lead in lichen samples taken from urban and rural settings, this experiment aimed to evaluate the suitability of naturally occurring lichens as bioindicators of atmospheric trace metal contamination and investigate how these metal levels reflect local atmospheric deposition patterns.
52. **A Comparative Lichen-Based Approach to Monitoring Urban and Rural Heavy Metal Pollution**
    Melina Ross, Carsyn Lewis, Tharanga Samarakoon, Wathsala Medawala, Sean Beeching, Bijia Wang, Mentored by: Dr. Wathsala Medawala
    By measuring the concentrations of zinc, copper, and lead in lichen samples taken from urban and rural settings, this experiment aimed to evaluate the suitability of naturally occurring lichens as bioindicators of atmospheric trace metal contamination and investigate how these metal levels reflect local atmospheric deposition patterns.
53. **Organic Synthesis of 1-Phenyl-2,3-naphthalenedicarboxylic Anhydride for use as a pH Indicator**
    Kayley Owens, Ava Howell, Mentored by: Dr. Wathsala Medawala
    It is always the goal of chemistry education to expand educational opportunities to connect courses and labs across the discipline. This study explores the multi-step organic synthesis of a new pH indicator for use in acid-base titrations. NMR and melting point analysis were used to confirm the structure and physical properties of the intermediate. Future steps include application of synthesis and characterization in Organic II Lab and of titrations in Quantitative Analysis Lab.
54. **Investigation of Sucrose-to-Ethanol Kinetics in Hefeweizen Brewing**
    Carlos Lopez, Nour Nazim, AnnaBelle Dehaas, Mentored by: Dr. Ken McGill
    Explain the sucrose to ethanol kinetics, and analytical techniques required to complete all seven steps of brewing beer. Using properties such as the index of refraction, specific gravity, boiling point, concentration, and ABV. This project examines the steps to go from farm grown grain to a labratory brewed beer.
55. **Development of a Passive Multiphase Acoustic Flow Meter**
    Marisol Guzman-Rangel, Nickolas Stephens, Cole Shade, Mentored by: Dr. Ken McGill
    The development of this passive multiphase flow meter utilizes a technique that is outlined in the U.S. patent 10,578,471 B2, where a passive acoustic device measures sound propagation of three phases–gas, water, and oil– with and against the flow of the material in the pipeline. Each material has large differences in intensity, so an analog-to-digital-converter is used to resolve this difference.

56. **Spectrophotometric determination of the chelating behavior of metal ions and EDTA encapsulated in sol-gel matrix**
    Carter Barnes, Mentored by: Dr. Catrena Lisse
    This analytical chemistry research explores the use of dyes in tandem with silica sol-gel matrices and investigates their potential medicinal applications. The project examines how dye-sol-gel interactions influence chemical behavior, stability, and functionality, highlighting how these hybrid materials may be applied.
57. **Hybrid sol-gel materials to advance forensic fire debris analysis**
    Thomas Rice, Mentored by: Dr. Catrena Lisse
    A chemistry project based around the extraction and characterization of accelerants obtained from burn samples. This project will cover the standards in forensic analysis and the establishment of a standard procedure in doing so. The project will also cover the creation of an organic-inorganic hybrid sol-gel adsorption package as an alternative method to current standards.
58. **Design and Synthesis of a Sol-Gel Colorimetric Sensor for Methamphetamine Detection**
    Emily Mirth, Mentored by: Dr. Catrena Lisse
    A sol-gel was synthesized to be used in the detection of methamphetamine by entrapping Simon's reagent in the matrix. The goal is to create an easy-to-transport detection device for field usage by law enforcement.
59. **Synthesis and Characterization of Pigments: Comparison Study of Metal Ferrocyanide Frameworks**
    Benjamin Brown, Ansley Gardner, Whitney Lamb, Srilakshmi Nagisetty, Mentored by: Dr. Catrena Lisse
    Prussian Blue, first synthesized in the early 18th century, is recognized as the earliest synthetic inorganic pigment and became widely adopted due to its low cost and practicality. The pigment's characteristic deep blue color arises from the formation of an extended $Fe^{3+}(NC–Fe^{2+})_6$ lattice produced when iron(III) ions react with ferrocyanide. This study explores how substituting alternative metal cations into ferrocyanide-based coordination frameworks influences pigment formation, color, and spectroscopic signatures. Metal salts containing iron(III), copper(II), and zinc(II) were reacted with potassium ferrocyanide via double-replacement precipitation to generate the corresponding metal–ferrocyanide solids. The resulting materials were characterized using Fourier-transform infrared (FT-IR) spectroscopy, Raman spectroscopy, and X-ray fluorescence (XRF) to evaluate structural motifs and compositional differences. This presentation highlights the experimental design, synthetic methodology, and preliminary analytical results obtained by students participating in the undergraduate laboratory course
60. **Synthesis, Functionalization, and Characterization of Mesoporous Silica Nanoparticles**
    Elizabeth Abara, Kaylee Richard, Mentored by: Dr. Catrena Lisse
    This project explores the synthesis, functionalization, and characterization of mesoporous silica nanoparticles (MSNs) conducted through a first-year chemistry research experience. Using tetraethyl orthosilicate (TEOS), students synthesized MSNs and modified their surfaces with amine groups to enhance functionality. Dopants were also incorporated to introduce potential application properties. The nanoparticles were analyzed using FT-IR spectroscopy and light microscopy. allowing students to investigate structure and functional groups while developing research skills.
61. **Synthesis and Characterization of Aspirin: Comparison Studies of Acid Catalysis**
    Abigail Harkcom, Han Lam, Lilley Kate Gwyn, Madison Middleton, Mentored by: Dr. Catrena Lisse

In CHEM 1311L, students synthesized, purified, and characterized aspirin. Using literature-based methods, salicylic acid reacted with acetic anhydride using sulfuric or phosphoric acid catalysts. Reaction rate, crystallization, and purity were compared. Product quality was evaluated by melting point, iron(III) chloride testing, TLC, 1H-NMR, and FT-IR spectroscopy, highlighting overall experimental results.

62. **Reusability and Sensitivity of Porphyrin-Doped Silica Sol-Gels for Nitroaromatic Detection**
    Dakota Warren, Sophia Meere, Mentored by: Dr. Catrena Lisse
    This research develops reusable fluorescent silica sol–gel sensors doped with porphyrins to detect nitroaromatic explosives. The materials were tested for sensitivity, durability, and regeneration using UV–Vis and fluorescence spectroscopy. Results demonstrate detection, fluorescence recovery after reuse, and fine tuned porphyrin loading for stable, and reproducible explosive sensing applications.
63. **Qualitative Analysis of Illicit Drugs in Dyed and Non-Dyed Hair Samples Using GC/MS**
    Bailey Dassow, Mentored by: Dr. Catrena Lisse
    This presentation will discuss the research done on detecting substance use specifically methamphetamines in hair both dyed and natural. Extraction of amphetamines was performed two different ways one using SPE cartridges, and both derivatizing the samples to mimic methamphetamines. These extracted samples were run through the GCMS producing the spectras shown in this presentation.
64. **Alternative synthesis of octyl 4-methoxycinnamate**
    Mason Grant, Mentored by: Dr. Ronald Okoth
    A proposed alternative synthesis of octyl 4-methoxycinnamate with a focus on green chemistry and chemical education. Currently OMC is made in industry via extremely wasteful, non-recycleable means that leads to many byproducts and harmful waste. The proposed reaction operates on a 1:1 mol ratio, creates no waste, and uses commonly known organic techniques.
65. **Effect of pH changes on mesalamine capped silver nanoparticles for IBD therapy**
    Hope Spohn, Mentored by: Dr. Peter Rosado-Flores
    The effects of pH decreases and increases on mesalamine called silver nanoparticles were studied, indicating that a raised pH increases particle stability.
66. **Synthesis and Characterization of ZIF-8 Metal Organic Framework: First-Year Chemistry Research Experience**
    Kylie York, Kendall Sliver, Kaitlyn Teague, Mentored by: Dr. Peter Rosado-Flores
    This project explores the synthesis and characterization of ZIF-8, a zinc nitrate and 2-methylimidazolate based Metal-organic framework. By doing this, this project aims to further our current understanding of how different MOFs are synthesized, how synthesis methods impact characterization, and how a MOFs structure contributes to its many applications in modern chemistry.
67. **A Comparative Study of Extraction Methods for Anti-Inflammatory Compounds from Banana Leaves**
    Canna White, Mentored by: Dr. Peter Rosado-Flores
    Comparing methods of extraction from in order to obtain potential anti-inflammatory properties from banana leaves as an alternative to synthetic agents.
68. **Synthesis and Characterization of Azobenzene-4,4'-dicarboxylic acid, Azobenzene-3,4'-dicarboxylic acid, and Azobenzene-3,3'-dicarboxylic acid to form MOFs**
    Jeffrey Grayson, Noah Ford, Peter Rosado-Flores, Mentored by: Dr. Peter Rosado-Flores

Synthesis of three Azobenzene dicarboxylic acids and a look into their coordination with metals as ligands to form MOFs. The utilization of proton and carbon NMR spectroscopy, IR spectroscopy, thermogravimetric analysis (TGA), and Melting point analysis was used to characterize these crude ligands.

69. **Employing XRF (X-Ray Fluorescence) To Discover The Elemental Evolution of Image Replication Lithography**

    Camille Hodek, Mentored by: Dr. Peter Rosado-Flores

    A collaboration between GC&SU Chemistry and Art departments. Explores the use of X-Ray Fluorescence and lithography printing technique for the purpose of analyzing historical art and replicating pieces that contain heavy metals to be safe for viewing pleasure.

70. **Exploring the Synthesis of ZnO Nanoparticles for Academic Lab Settings**

    Talia Dobkin, Rebecca Huisman, Mentored by: Dr. Peter Rosado-Flores

    Zinc Oxide Nanoparticles exhibit unique qualities such as optical photoluminescence, antimicrobial properties and semiconductor enhancement, giving applications in the medical, forensic and water purification fields. The aim of this study was to effectively synthesize ZnO NPs, which demonstrate UV shielding at a high percent yield and with minimal impurities. This project is ongoing with the goal of presenting a sustainable and practical synthesis method, potentially utilizing recycled zinc, for an undergraduate laboratory setting.

71. **Portable Linear Electrostatic Particle Accelerator**

    Jonas Barfield, Jude Doredant, Mentored by: Dr. Ralph France

    This presentation will be documenting the progress of a long-term project attempting to manufacture a portable particle accelerator for nuclear physics research at GC&SU and other USG institutions like UNG.

72. **Consistency Over Intensity: How Do Our Study Habits Influence Success?**

    Hannah Roberts, Mentored by: Dr. Daniel Wu

    This study investigates the "Spacing Effect" by analyzing clickstream data from 32,000 students to determine if consistent studying outperforms last-minute cramming. Using Binary Logistic Regression and the Gini coefficient to measure study volatility, the research identifies study patterns that predict course failure. The findings provide a data-driven framework for early intervention, helping educators support at-risk students before their performance reaches a critical tipping point.

73. **The Probabilistic Analysis of Layoffs in the United States**

    Sam Samiya, Mentored by: Dr. Daniel Wu

    Job security has been a major topic of discussion amid the advancement of artificial intelligence in various domains. To validate how accurate these assumptions are and scrutinize them using data from the Bureau of Labour Statistics and the U.S. Census Bureau, this analysis will utilize the skills from data engineering and mathematics to visualize the most fundamental question of this economy: "Which professions are most vulnerable to layoffs?"

74. **Using AI to Automate Content Clipping and Distribution**

    Evan Hite, Mentored by: Frank Richardson

    This research aims to determine how effectively artificial intelligence is at creating and distributing of short form social media content. For this project we will build a system that converts long form media such as podcasts and trading card streams into short video clips and distributes them across many social

media accounts. The study will evaluate efficiency, consistency, and marketing performance compared with traditional human clipping workflows.

75. Artificial Intelligence in Short-Form Media Production

Evan Hite, Mentored by: Dr. Daniel Wu

This project is meant explore how effectively we can train an ai to detect highlights within long form video using machine learning. By modeling visual, audio, and optional transcript features the system will predict which moments are most important and select top highlights by time stamp. Ideally a system like this could replace a crucial manual part of an editors workflow when converting long form media into short form for platforms such as Instagram reels, TikTok, and YouTube shorts.

76. Predicting NBA Player Market Value Based on Performance and Experience

Maci Riley, Mentored by: Dr. Daniel Wu

This project uses machine learning regression models to predict NBA player salaries as a percentage of the league salary cap based on on-court performance, age, and experience. Models such as Random Forest and K-Nearest Neighbors are evaluated to estimate fair market value and identify over- and underpaid players.

77. Classification of U.S. Political Topics with Large Language Models

Ethan Montgomery, David Mears, Mentored by: Dr. Yi Liu

This is a presentation on an ongoing research project about building a political AI agent that would allow users to quickly understand trending topics and macroscopic sentiment on different topics.

78. Horror as a Form of Literacy

Kaitlin Scherer, Mentored by: Courtney Hitson

This presentation offers a deep dive into the genre of horror, specifically slasher films, and how the act of watching them functions as a form of literacy. Through the discussion of the rule-based narrative, a formulaic pattern, psychological effects, and personal narrative, the way in which horror films serve as an expression of literacy becomes evident.

79. A Deeper Look Into Movie Nights

Lillian Walsh, Mentored by: Courtney Hitson

This paper analyzes the ritual of movie nights and the deeper meaning behind these nights. Themes of isolation, fear of judgement, and the self-inflicted pressure in regards to academic validation are explored to understand why movie nights hold such a prominent place in my routine. By looking into these concepts, an understanding that these nights are more than just romcoms and comedies became apparent. These nights became a place of refuge, a place where there is no longer a need to perform

80. Confronting Drug Culture in Fast Food

Connor Martin, Mentored by: Courtney Hitson

This project is an analysis of my time working at Zaxby's, examining how the reality of fast food contradicts the promise of the American Dream. Through my experience, I evaluate the cause of drug use in the workplace, going beyond simple deviance, as it's rather a reflection of American Society.

81. My Experience with De-Quarantinalization

Nathan Tchamna, Mentored by: Courtney Hitson

This personal essay is a literacy narrative that explores my journey in writing, speaking, and communication overall. I examine how drastic changes brought about by the COVID-19 pandemic as well as my academic performance influenced my social development and in turn the deeper motivations guiding my literary and rhetorical work.

82. Autoethnographic Essay- Nightly Reading

Baylie Shumans, Mentored by: Courtney Hitson

This project is an autoethnographic essay analyzing the nightly ritual of reading before bed. It shows that a simple act reveals cultural values learned throughout one's life such as productivity and discipline, while also exploring how the act of reading became tied to identity. Additionally, it models generational identity, demonstrating how family habits shape identity.

83. The Environmental Costs of Cosmetic Consumption

Natalia Eason, Mentored by: Benjamin Elliott

With cosmetic usage being a daily occurrence for many individuals, this results in individuals being unaware that their actions are contributing to environmental damage. From the billions of units worth of waste produced from cosmetic packaging alone to the use of chemical additives that negatively impact marine and human health, we're no longer in a position to ignore the lasting damage the cosmetic industry has inflicted upon our environment and health.

84. The Importance of Pre-Kindergarten

Neko Kaplan, Mentored by: Benjamin Elliott

To sustain state-funded early childhood education programs, Pre-K must be recognized as a crucial step in education and a step towards closing the poverty gap. My research project argues the importance of Pre-Kindergarten, setting children up to lead successful and emotionally rich lives by supporting early cognitive growth, nurturing social, fine-motor, and emotional development.

85. An Analysis of H.G. Wells' 'The Time Machine'

Emily Lampe, Mentored by: Benjamin Elliott

'An Analysis of H.G. Wells' The Time Machine' is an essay that examines the novel's striking commentary on the intense class divisions that plagued England during the Victorian era. This essay focuses particularly on Wells' use of a seemingly utopian society with a terrifying dystopia lurking just beneath the surface, as well as the two distinct species present to create this commentary.

86. Fresh & Forthcoming: Crafting a Cohesive Identity for Peach through Physical and Digital Design

Emma Harding, Isabelle Anderson, Christina Faber, Mentored by: Dr. Kerry James Evans and Laura Newbern

This project analyzes the integrated brand identity of Peach, an annual literary journal established at Georgia College & State University. It examines how physical materiality—including paper selection, typography, and sensory-focused merch—is synthesized with digital platforms and a physical presence at the AWP Bookfair to create a cohesive institutional identity.

87. Reel Love: How Media Shapes Our Understanding of Romance

Simran Puri, Mentored by: Dr. Kaitlyn Newman

The essay, How Media Shapes Our Understanding of Love, is for the class Philosophy of Love & Sex, is about what we have been taught about love since childhood up to now.

88. Stewardship over Dominance: Christian Environmentalism

Benjamin Clark, Mentored by: Dr. Mark Causey

Despite strong theological foundations for radical environmental stewardship within Christianity, many Evangelical Americans and Conservative Christian communities show low support for, or outright rejection of, the policy initiatives towards a greener planet. This project aims to examine how political

polarization can reframe environmentalism as a partisan identity, rather than a moral obligation or the philosophical purpose (as proposed by Christianity) of Humankind.

89. **Perceptions and Practices of Generative AI Among students at Georgia College and State University**
    Addison Smith, Julianna Valcheff, Allison Jones, Madison Blakenship, Mentored by: Dr. Christina Smith
    Our project finds the uses and perceptions of generative AI amongst college students at Georgia College and State University.

10:30 AM – 11:15 AM

Poster Session III:
Magnolia Ballroom

90. **Tracking Nutrient Transformation in Georgia College Compost**
    Laura Harvey, Kristen Mueller, Mentored by: Dr. Allison VandeVoort
    Georgia College operates a large-scale in-vessel composter which diverts dining hall food waste into useable compost in local gardens. This study aims to monitor compost quality by observing physiochemical data over time, including moisture content, ammonium and nitrate concentrations, and pH. Each are markers of compost quality, and aid in assessment of aerobic decomposition and nitrification in the compost.
91. **The effect of lime application on pH and nitrification in compost**
    Yariel Delgado, Kristen Mueller, Laura Harvey, Mentored by: Dr. Allison VandeVoort
    Nitrification is an aerobic process that converts ammonium into nitrite and then into nitrate. Nitrosomas and Nitrobacter are essential to produce nitrate, an essential nutrient for plants. For the bacteria to thrive, the pH must be between 6 and 7.5. The goal of this research is to take acidic piles of compost and add lime to raise the pH to see its effects on nitrification and improve compost quality.
92. **Assessing Soil Treatment Effectiveness Following Kudzu Removal**
    Christian Chandler, Laura Harvey, Alanis Bernis, Mentored by: Dr. Christine Mutiti
    We are looking at the effects Kudzu has on the soil. After the removal of this invasive plant at the Greenway, there were 10 designated spots that were given different soil treatments. The goal was to monitor the affects those treatments had on the soil, so the data that we attained after 6 months could give us a possible answer as to which treatment option was most effective at maintaining the soil health.
93. **The ontogeny of movement: biotelemetry of known-aged rattlesnakes to explore the development of movement behavior**
    Carter Hathaway, Amber Stubbs, Jacob Gniadek, Domic DeSantis, Mentored by: Dr. Dominic DeSantis
    We hope to quantify the movement traits and to pioneer investigation into the ontogeny of movement behavior in Timber Rattlesnakes through multi-annual telemetry monitoring and eventual incorporation of implantable biologgers. With the recent advancements in miniaturization of animal-borne transmitting and datalogging technologies we can pursue this endeavor fully and glean information from the lives of Timber Rattlesnakes that would otherwise be mostly unknown.
94. **Comparing the spatiotemporal movement patterns in cooccurring pit vipers with distinct foraging strategies and diet breadths**
    Jacob Gniadek, Amber Stubbs, Dominic DeSantis, Mentored by: Dr. Dominic DeSantis

In predators, foraging mode and prey breadth are often key correlates of movement patterns and activity budgets. We propose an integration of radiotelemetry and accelerometry in cooccurring timber rattlesnakes and copperheads to evaluate how interspecific differences in body mass, prey breadth, and consequent foraging strategy relate to variation in home range size, movement distances, and activity timing and intensity.

95. **THERMAL LIMITS OF THREE GEORGIA CRAYFISH SPECIES: IMPLICATIONS FOR CONSERVATION UNDER CLIMATE CHANGE**
    Samantha Moore, Elias Aufderheide, David Weese, Mentored by: Dr. David Weese
    Our research is aimed to conserve crayfish species endemic to Georgia. We collected different species of crayfish from creeks local to Baldwin County to test their upper thermal limit (UTL). Approximately 61 individuals were tested to determine what temperatures they could withstand before physiological breakdown.
96. **RELATIONSHIP BETWEEN VEGETATION STRUCTURE AND SOIL CARBON IN A MANAGED FOREST**
    Alanis Bernis, Christine Mutiti, Victoria Alden, Rebecca Barringer, Mentored by: Dr. Christine Mutiti
    This research project concentrates on how litter on the forest floor influences soil carbon in the soil of Bartram Park, Milledgeville. On three different sites with different forest managements we measured for litter mass, soil organic carbon, and canopy cover. The results showed that the unmanaged site (hardwood) had the greatest amount of litter mass. Litter mass and soil organic carbon had a positive correlation, which indicates that litter and canopy cover influences the amount of carbon in the soil.
97. **VARIATION IN SOIL CARBON CONCENTRATION AMONG FOREST MANAGEMENT TREATMENTS**
    Becky Barringer, Victoria Alden, Alanis Bernis, Leah Bartleson, Mentored by: Dr. Christine Mutiti
    This project focuses on forest soil carbon, which plays a vital role in regulating atmospheric greenhouse gases. Varying forest management practices release and sequester different amounts of carbon, and evaluating these practices helps identify the best method of sequestration. This study was done at Bartram Forest and Andalusia, both located in Milledgeville, GA.
98. **Using GIS to assess soil carbon distribution under different forest management regimes**
    Victoria Alden, Becky Barringer, Alanis Bernis, Mentored by: Dr. Christine Mutiti
    This study aims to determine if differences in soil properties in forest stands with different forest management treatments can be explained by the physical parameters of a site and if Geographic Information Systems can be used to accurately interpolate field-collected data at large scales with the goal of evaluating sampling designs.
99. **Gene Discovery and Enzymatic Pathways in the Millipede Cherokia georgiana**
    Sarah Carter, Bruce Snyder, Arnab Sengupta, Mentored by: Dr. Bruce Snyder
    To address limited genomic data for Cherokia georgiana, we generated a de novo assembled coding transcriptome and annotated it using DIAMOND BLASTx to characterize adaptations including cyanogenesis and biofluorescence. AlphaFold3 structural prediction and sequence alignments identified candidate HNL-encoding genes. We cloned, expressed, and His-tag purified the selected enzyme and confirmed its identity by SDS-PAGE. Pterin extraction and TLC suggest pterin-6'-carboxylic acid and 7,8-dihydropterin carboxylic acid as biofluorescent pigments. Their functional roles will be verified through RNA extraction and differential gene expression analysis.

100. Determining food requirements of Sigmoria sp. by evaluating body mass changes in individuals

Rachel Witteman, Mentored by: Dr. Bruce Snyder

Millipedes of the genus Sigmoria are placed in microcosms with measured food sources. These food sources hold different proportions of essential nutrients. As the millipedes grow, one can learn more about their dietary requirements by observing the sequential gain or loss of weight, as well as through their overall survival in each condition.

101. Karyotyping Sigmoria

Ari Johns, Arnab Sengupta, Mentored by: Dr. Bruce Snyder

The following project aims to construct a karyotype for millipedes belonging to the genus Sigmoria. The karyotyping process will be carried out via analysis of spermatogonial cells collected from the dissected testes of a sample. Giemsa staining techniques will be used to reveal chromosomal banding patterns and subsequently arrange chromosomes in order by size.

102. A Life History Study of Cherokia Georgiana

McKinley Roth, Mentored by: Dr. Bruce Snyder

This study aimed to provide the first record of Cherokia georgiana from birth to death. Following collection, millipedes were put in mating pairs and maintained in an artificial laboratory environment. Once eggs are produced, offspring will be placed in a separate vivarium in which Plaster of Paris and specific watering methods will be utilized. These data will address a gap in our knowledge of this species and will aid future investigations.

103. Effects of Habitat Disturbance on Diplopod Communities

Mckenzie McIntyre, Mentored by: Dr. Bruce Snyder

Millipedes, belonging to the class Diplopoda, represent a group of diverse soil macrofauna. Although they play an important role in maintaining soil composition and quality, millipedes are sensitive to habitat disturbances, which may have deleterious effects on community structure. This study examined how habitat disturbances caused by agricultural land management practices impact millipede communities. Millipedes were sampled from sites in central Georgia using combined collection methods, and community structure was assessed using diversity indices.

104. Occurrence and abundance of Vibrio pathogens in freshwater lakes

Sara Serrano, Maya Lewis, Karagan Royer, Dr. Andrei Barkovski, Mentored by: Dr. Andrei Barkovskii

This project assesses the presence and abundance of pathogenic Vibrio species in Altamaha Sound and connected freshwater Lake Sinclair. In Altamaha Sound, water and sediment samples were collected from multiple sites and analyzed for Vibrio pathogens, and environmental parameters affecting their distribution and abundance were determined. Lake Sinclair is presently under study. This information will improve current understanding of the dissemination of Vibrio pathogens and help inform the local population about potential exposure risks.

105. Examining the Role of Adenovirus E4 11k Protein on IFN-Beta Expression

Odeya Atar, Lily Cox, Mentored by: Dr. Kasey Karen

Reverse Transcription quantitative PCR (RT-qPCR) is an effective tool for measuring gene expression by quantifying mRNA. We used RT-qPCR to demonstrate host cellular response to adenovirus and the potential mechanisms of infection by measuring RIG-I and interferon (IFN)-beta mRNA over a 48-hour time course. It has been demonstrated that DEAD-box helicase (Ddx6) colocalizes with the

protein E4-11k. We hypothesize that this colocalization modulates RIG-I and potentially decreases IFN-beta expression.

106. Adenovirus Protein E4 11k and the Innate Immune RIG-I Pathway**

Ansley Whitfield, Lizeth Luquin, Mentored by: Dr. Kasey Karen

Our research investigates how adenovirus affects RIG-I signaling pathway. We hypothesize that the viral E411K protein suppresses interferon beta production by relocalizing DDX6 to aggresomes. Using immunofluorescence with IMR90 and A549 cells, we will determine whether stress granules form during adenovirus infection and if their localization depends on E411K.

107. Discovery and Characterization of RNA Viruses in Millipede Species in the Middle Georgia Area

Dale Fulcher, Kasey Karen, Mentored by: Dr. Kasey Karen

This project aims to discover the RNA viruses living within local Millipede species. They serve as keystone species to their local environments, yet information about the viruses within them remains lacking. Uncovering this information about shed light on the innerworkings of millipedes and give greater insight into the evolution of viruses in invertebrates.

108. Defining the Structure and Regulatory Potential of the CIRBP 5'UTR to Understand Its Stress Response Role

Sarah Conner, Matthew Kirchner, Mentored by: Dr. Arnab Sengupta

We will be discussing the utilization of the SHAPE-MaP chemical probing technique and a luciferase assay system to simultaneously analyze the secondary structure of the CIRBP 5' UTR and the potential IRES activity associated with this secondary structure. We will outline the techniques being utilized, the data we have received from these techniques, the relevance of said data, and the intended future directions.

109. Utilizing mutageneic analysis and CRISPR-Cas9 to determine functionality of RPA2 IRES

Daniel Hastings, Crystabel Kwarteng, Conner Sivley, Mentored by: Dr. Arnab Sengupta

This project aims to expand our current understanding of internal ribosome entry sites (IRESs) in human/eukaryotic cells by performing in vitro mutagenesis and in vivo endogenous CRISPR-Cas9 edits. RPA2 is a cancer-related gene that contains an alternative mechanism for its expression under stress, making it a prime target for this project.

110. Translational control of pro-apoptotic PUMA via mRNA 5’ end regulatory elements

Brian Wirth, Nathan Choi, Mentored by: Dr. Arnab Sengupta

PUMA is a key pro-apoptotic gene whose translation is likely regulated by its 5' UTR structural features. To investigate this translational control, we applied SHAPE-MaP to model the secondary structure of the PUMA 5' UTR in A549 lung carcinoma cells. We identified structural changes under in-cell conditions that suggest RNA-protein interactions. Using RNP-MaP, we plan to map these interactions directly. Future work will examine how cellular stress alters PUMA 5' UTR structure and RNP binding.

111. Impacts of Neighborhood Type, Geology, and On-site Sanitation Systems on Groundwater Quality.

MUZILA Nchimunya, Megan Martin, Christine Mutiti, Mentored by: Dr. Samuel Mutiti

The study evaluated microbial diversity, species richness, and community structure in drinking groundwater using High-throughput Next-Generation Sequencing techniques. Through the combination of conventional water quality study approaches and advanced molecular techniques, the research aimed to identify indicators of contamination and possible pathways, unique environments.

This provided an improved understanding of groundwater microbial structures, informing safer groundwater management in regions that rely heavily on untreated groundwater for drinking water.

112. Landcover Distribution of Microplastics Across Milledgeville, Georgia Wetland Systems

Emily Granier, Mentored by: Dr. Samuel Mutiti

Microplastics are an increasingly prevalent pollutant in aquatic systems. This project investigates microplastic contamination in freshwater systems across Milledgeville, Georgia, highlighting how hydrology and land use influence the distribution of MPs. Water and sediment samples from ten sites with differing surrounding landcover types were collected and analyzed for microplastic abundance, size, and color, then compared using GIS.

113. Assessing Population Growth Patterns of Invasive Hydrilla verticallata Along Lake Sinclair's Shoreline

Ella Graceson Reese, Chloe Carroll, Mentored by: Dr. Kalina Manoylov

This project assesses Hydrilla verticillata coverage at seven public access sites along Lake Sinclair's shoreline. The easy dispersal and rapid growth of this invasive aquatic plant negatively impacts waterways that are utilized for navigation, recreation, hydroelectric power generation, and ecosystem services. The coverage data collected over a 5-week period along with pH, temperature, dissolved oxygen, and conductivity data differed from patterns previously reported in 2023 confirming changes in Hydrilla growth patterns.

114. The phenology of the Asian Longhorned Beetle host trees under changing climate

Anne Marie Adams, Matthew Kuipers, Sebastian Portalier, Mentored by: Dr. Sebastian Portilier

Asian longhorn beetles are an invasive wood-boring insect that has spread across North America, resulting in significant harm to their native tree hosts such as maple, elm, willow, birch, and poplar. The beetles and tree's life stages are both sensitive to changes in temperature. In this experiment, we will compare the global temperature change to the rate of development of the host tree's buds, ultimately relating it to the dynamics of the beetles.

115. Nurse-Driven Interventions to Address Cesarean Section Rates

Cavetta Tulloch-Lewis, Mentored by: Dr. Monica Ketchie

This project aimed to reinforce nurses' knowledge and use of evidence-based, nurse-driven labor support interventions while assessing staff readiness for practice change. It also evaluated maternal demographics and risk factors associated with primary cesarean birth, measured nursess' adherance to labor support techniques, and examined the impact of these interventions on cesarean rates.

116. Assessing Cardiovascular Disease Risk in Rural Populations in Georgia

Katelyn Ard, Ivey Breland, Karlie Galloway, Damian Francis,, Mentored by: Dr. Damian Francis

SPSS was used to analyze data gathered by the Center for Health and Social Issues (CHSI) Mobile Clinic. The study has two main goals. The goals are to identify whether the mobile clinic clients are at high risk of developing cardiovascular disease and to determine whether the data support the need for public health intervention to address CVD risk factors in rural Georgia communities.

117. Social media use and body image among college students: A narrative review

Sophie Zarate, Mara McGinley, Helen DuPree, John Moore, Mentored by: Helen DuPree

This narrative review will examine research looking at associations between social media use and body image outcomes among U.S. college students. Findings will be organized around key themes, including appearance comparison behaviors and exposure to idealized images. The review will consider how social

media may contribute to body dissatisfaction and overall eating disorder risk, and discuss implications for campus-based prevention initiatives and future research directions.

118. GLP-1s in Addiction Treatment: Reducing Cravings & Compulsion

Mara McGinley, Sophie Zarate, John Moore, Helen DuPree, Mentored by: Dr. John Moore

The following study examines the potential role of GLP-1s in the treatment and management of various behavioral and drug addictions.

119. "Why GCSU?": A Quantitative Assessment of Why Health Science Majors Choose Georgia College

Avery Halseth, Scott Butler, Johnny Moore, Helen DuPree, Joanne Spaldin, Corey Claxton, Mentored by: Dr. Scott Butler

This study assesses the reasoning behind health science majors' decision to attend GCSU. 645 students completed a questionnaire designed to quantify the perceived benefits of the liberal arts experience, why they chose GCSU, and participation in transformative experiences. Nearly all participants (99.2%) reported at least one benefit to attending a liberal arts institution. Findings have implications for the recruitment and retention of students enrolled in health sciences at GCSU and other public liberal arts institutions.

120. Relationship Between Eccentric Duration During Vertical Jump and Relative Back Squat Strength

Hannah Leavell, Sydney Hutchinson, Haley Broadnax, Mentored by: Dr. Austin Parks

The purpose of this study was to examine the relationship of a one-repetition maximum (1RM) relative back squat and eccentric duration during a vertical jump (VJ). The correlation between relative squat max and eccentric duration proved to be statistically significant. Greater relative strength led to an increase in eccentric duration. Force production is slower over a longer duration.

121. Relationship Between Body Mass and the Efficacy of Foam Rolling

Haley Broadnax, Sydney Hutchinson, Hannah Leavell, Mentored by: Dr. Austin Parks

The purpose of this study is to investigate the relationship between body mass and the efficacy of foam rolling. The correlation between body mass and foam rolling during the sit and reach test proved to be statistically insignificant. This supports the idea that a larger body mass does not lead to more effective foam rolling.

122. Monitoring Jump Height Trends and Neuromuscular Readiness Across a Collegiate Volleyball Season

Carlee Mauldin, Jenna Zapf, Mentored by: Dr. Joanne Spalding

This study monitored countermovement jump (CMJ) metrics, including jump height, reactive strength index, and peak velocity, at 13 time points during an NCAA Division II women's volleyball season. Significant increases in jump height and peak velocity were observed from Week 4 onward, whereas the reactive strength index remained stable. These findings suggest neuromuscular adaptation in response to training and competition. The observed increases in jump height and peak velocity likely reflect neuromuscular adaptations to training and competition, such as enhanced motor unit recruitment, coordination, rate of force development, and neural drive during the CMJ. The stable reactive strength index indicates that stretch-shortening cycle efficiency was maintained throughout the season, despite improvements in force production and velocity. In summary, NCAA Division II women's volleyball athletes demonstrated improved jump height and velocity over the season, with consistent reactive

strength. Monitoring CMJ metrics may therefore be valuable for tracking neuromuscular adaptation and informing training and recovery strategies to optimize postseason performance.

123. Assessment of Mental Health in Female Athlete vs Non-Athlete College Students

Sarah Mason, Anna Marriott, Evie Taylor, Maddie Todd, Tylia Brown, Mentored by: Dr. Joanne Spalding

The mental health of college students has become a growing concern in recent years, as increasing academic demands, social pressures, and transitional challenges contribute to stress, anxiety, and depression among young adults. Within this population, student-athletes represent a unique subgroup that experiences both the benefits and burdens of collegiate athletics. This study aims to determine whether there is a difference between athlete and non-athletes on mental health factors like how well they handle stress, levels of anxiety, and depression symptoms. Previous research shows that there is mixed evidence when comparing athletes vs. non athletes.

124. Changes in Repeated Sprint Performance and Heart Rate Recovery in Collegiate Men's Basketball Players

Terraius James, Joanne Spalding, Fiona Dodge, Mentored by: Dr. Joanne Spalding

This project examined changes in repeated sprint performance and heart rate variables in collegiate men's basketball players across three testing sessions over four weeks. Athletes completed a court-based "Ten and One" line drill while sprint time, maximal heart rate, and one-minute recovery heart rate were recorded. Results indicated significant improvements in sprint performance, while heart-rate recovery measures remained consistent over time.

125. Effects of a Competitive Season on Countermovement Jump Height and Match Performance Variables in NCAA Division II Female Soccer Players

Garrett Johnson, Mentored by: Dr. Joanne Spalding

The collegiate women's soccer season places high demands on the athletes. Athlete monitoring protocols can be set in place to manage and observe the load placed on the athlete physiologically. These load management protocols have become commonplace throughout high level athletics. Yet, there still remains a lack of research that examines the trends in countermovement jump and match performance variable over the course of a competitive season (preseason, season, and post-season) at the NCAA Division II level.

126. How Sleep Affects Reaction Time

Mariah Metros, Livy Brown, Kyle Hilsmier, Hunter Kigore, Bryce Arnold, Grady Horton, Mentored by: Dr. Joanne Spalding

Sleep deprivation is common among college students and may impair cognitive performance. This cross-sectional correlational study examined the relationship between prior-night sleep duration and reaction time using a 3-minute PVT-B in 50 undergraduates. Sleep duration was significantly negatively correlated with reaction time ($r = –0.676$, $p < .001$), indicating that shorter sleep was associated with slower responses.

127. What are the Barriers to Exercise for GCSU students aged 18-23?

Andrew Canterbury, Joanne Spalding, Mentored by: Dr. Joanne Spalding

This study looks into the barriers for meeting recommended exercise guidelines as outlined by the National Academy of Sports Medicine for GCSU students. The project details the barriers, as well as examining potential action steps that could be taken to help students meet their exercise needs.

128. A 10 Week Exercise Program on a 21-Year-Old Male with Repaired Tetralogy of Fallot

Andrew Canterbury, Kelly Massey, Mentored by: Dr. Kelly Massey

This program involved a 21-year-old male who suffers from Tetralogy of Fallot, a congenital heart defect characterized by four defects present at birth. The patient underwent initial screening before completing a 10-week exercise program. The same screening was used post program to measure changes in cardiovascular fitness as well as changes in body composition.

129. Comparative Accuracy of Apple Watch and Polar Chest Strap Heart Rate Measurements During the Bruce Treadmill Test

Morgan Bridges, Sara Brown, Marleigh Carson, Megan Christiansen, Rebecca Myers, Mentored by: Dr. Brittney Hardin

Investigated the accuracy and validity of the Apple Watch SE compared to the Polar H10 chest strap during the Bruce Treadmill test in college students. Statistical analysis showed that while the Apple Watch is highly reliable for general fitness, it averaged about 3.5 bpm lower than the chest strap. These findings help clarify when consumer wearables are sufficient and when clinical-grade monitors are still necessary for precision.

130. Theragun vs static stretching: Which improves hamstring flexibility the most in college students using the sit and reach test?

Maddie Sheldon, Mentored by: Dr. Brittney Hardin

The purpose of our study was to determine the best method to improve hamstring flexibility in college students by way of a static stretch or Theragun massage. Subjects were tested by way of the sit-and-reach test pre and post intervention. Both interventions improved hamstring flexibility with static stretching increasing hamstring flexibility slightly more than the Theragun.

131. Vertical Jump Vertec vs. Force Platform Measurements

Maggie Cannon, Mary Kathryn Nolan, Ellie Lance, Mentored by: Dr. Brittney Hardin

This study examined whether vertical jump height measured by a force plate agree with measurements from a Vertec device in young adults. Twelve college students performed two maximal jumps measured simultaneously by both instruments. No significant differences were found between the methods. The results suggest the Vertec provides comparable jump height values and serves as a practical, and accessible choice when force plates are unavailable.

132. A COMPARISON OF THE INBODY BIOELECTRICAL BODY COMPOSITION AND DUAL ENERX-RAY ABSORPTIOMETRY IN COLLEGE-AGED STUDENTS

Nikki Blake, Mentored by: Dr. Kevin Hunt

This presentation is assessing the accuracy of body composition assessment in college age students using the InBody bioelectrical impedance analysis compared to the gold standard, DEXA.

133. Post-Pandemic Reestablishment Of Service-Learning Study Abroad Health Assessments In Belize

Brenna Gallman, Mentored by: Dr. Kevin Hunt

Glucose, cholesterol, blood pressure, heart rate, body composition, and demographics together provide a picture of health, enabling risk detection and prevention of conditions such as cardiovascular disease and diabetes. Annual screenings in San Ignacio, Belize, show higher cardiometabolic risk among low-SES residents, reflecting limited access to healthcare. Through the College of Health Sciences' study abroad program, trained professionals deliver free screenings and education. This study analyzes biometric trends and evaluates intervention effectiveness over time longitudinally.

134. Leadership Beyond Borders: Intercultural Competence and Leadership in a Globalized World

Eve Briscoe, Erin Young, Mentored by: Chelsey Brantley

This GC Journeys Showcase explores how GCSU's Leadership Programs and study abroad experiences work together to shape globally minded student leaders and citizens. Through scholarship-supported opportunities, students engage in intercultural communication, develop cultural competence, and deepen their understanding of community, globalization, and leadership. This presentation highlights how study abroad combined with leadership instruction fosters personal growth and effective leadership development, both in campus communities and around the world.

Oral Presentation Sessions

Atkinson 107 & 108, A&S 270, 272, 275, & 370, Health Sciences Building 201 & 202, Willow Room, Music Rehearsal Hall

10:00 AM – 10:50 AM

Economics & Finance, Moderated by Dr. Brooke Conaway
Atkinson 107

135. Do Crimes Rates affect Divorce Rates?
Caleb Mitchem, Mentored by: Dr. Brooke Conaway
In this project I find whether crime rates affect divorce rates across the U.S. states. I use cross-sectional data from 2019 and run an OLS regression model with divorce rates as the dependent variable and crime rates as the key independent variable. Also controlling for economic demographic, education, and many others to determine whether crime rates affect divorce rates.

136. Does Athletic Participation Increase Income Earned in Labor Markets?
Blake Hiley, Mentored by: Dr. Brooke Conaway
My study seeks to further understand the causal relationship between income and athletic participation. I use an Ordinary Least Squares model with robust standard errors to evaluate this relationship.

137. Does Being Homeschooled Affect Mental Health Outcomes?
Celia McDaniel, Mentored by: Dr. Brooke Conaway
Using Add Health data, I estimate the impact of homeschooling on adolescent mental health. Previous research suggested homeschooled students may be less depressed than traditionally educated peers. However, my research found that homeschooled students report slightly higher depression levels than those in traditional schools.

138. Does the Birth Order of Children Affect Their Future Income as Adults?
Arianell Viall, Mentored by: Dr. Brooke Conaway
Using a nationally representative sample from the National Longitudinal Survey of Youth of 1979, I estimate the effect of birth order on the future income the individual earns in adulthood. With the relationship between education and income in mind, as well as other factors; race, occupation, health, and gender, I have found that as the birth order of the individual increases, their income does not significantly change because of their birth order.

Information Systems & Computer Science, Moderated by Dr. Daniel Wu
Atkinson 108

139. Analyzing AI Workflow in Application Development
Andrew Carver, Mentored by: Frank Richardson
This project analyzes AI's efficiency as a tool during application development and if it should be used as a replacement for human engineers. AI was used to outline, code, and debug a small video game

demonstration with a development time of 4 months. Throughout the course of developing this project, AI showed many strengths and limitations when compared to human development.

140. Analyzing Thiele Data with Machine Learning to Uncover Maintenance Expenditure Patterns
Ethan Montgomery, Linda Matheny, Yash Prajapati, Mentored by: Dr. Daniel Wu
This is a presentation on our Team's experience in an experiential learning project with Thiele Kaolin Company. We will go over the general project format, as well as what we gleaned from the experience.

141. Reef Resilience: Coral Cover Trends and Bleaching Vulnerability in the Great Barrier Reef
Andrea Guider, Mentored by: Dr. Daniel Wu
This project analyzes the patterns of coral cover and bleaching vulnerability across the Great Barrier Reef using long-term monitoring data from the Australian Institute of Marine Science. The analysis examines how coral cover changed over time, identifies regions most affected by bleaching, and explores the relationship between coral and other benthic groups to better understand reef resilience through data visualization.

142. Student Perceptions of Virtual Reality and Mental Health
Carley Perez, Gracie Taylor, Tucker Balch, Mentored by: Dr. Joy Godin
This study explores how college students perceive virtual reality meditation as a gateway to mental health resources. We hypothesized that students would report positive perceptions of immersive VR meditation as a method for introducing mental health support in the classroom. Students attending two southeastern universities completed guided VR meditation sessions using TRIPP and Hoame applications. Findings suggest VR meditation may offer an effective, stigma-reduced approach to connecting students with mental health resources.

Biological & Environmental Sciences, Moderated by Dr. Al Mead
A&S 270

143. A Comprehensive Analysis of the Spatiotemporal Distribution of Late Pleistocene Fossil-bearing Localities in Southeastern North America Using Paired Data from the Neotoma Paleontological Database and Supplementary Published Resources
Mary G. Dickens, Dr. David Patterson, Mentored by: Dr. Al Mead
This study evaluates the reliability of the Neotoma Paleoecology Database (NEOTOMA) as a standalone resource for reconstructing Late Pleistocene ecosystems in southeastern North America. By pairing NEOTOMA records with published fossil locality literature, the research addresses gaps in geographic coverage, chronological accuracy, and contextual data. The resulting hybrid dataset will enable systematic comparisons of ecological diversity patterns, ultimately clarifying NEOTOMA's strengths and limitations while advancing spatiotemporal paleoecological reconstruction across the Quaternary.

144. Effects of pH on Algal Transport within Sediment
Wiley Bundy, Katie Hitt, Mentored by: Dr. Samuel Mutiti
This project is on the ways pH affects the transport of algal groups within sediment. Surface-water/groundwater interaction are complex environments with many factors like flow rate, sediment type, organism characteristics, and local environmental conditions making studying this interface complex. By looking into algal transport we can determine how different factors control microorganisms movement in this complex environment.

145. Extended Effects of Lime and Compost Amendments on Nutrient Retention in Cecil Soil

Brannon Polk, Mentored by: Dr. Allison VandeVoort

This project evaluates how lime and compost amendments influence soil pH and phosphate retention in Cecil soil (fine, kaolinitic, thermic Typic Kanhapludults). Laboratory experiments included lime requirement determination, pH kinetics, compost buffering capacity, and phosphate desorption under varying amendment treatments. These results were integrated with GIS analyses of land cover change, erosion risk, and runoff potential in Morgan County to assess long-term soil improvement strategies.

146. Skull Morphological Differentiation in Southeastern Peromyscus

Michelle Crumley, Mentored by: Dr. Al Mead

This study aims to compare cranial measurements to distinguish between Peromyscus leucopus, Peromyscus gossipinus, and Peromyscus polionotus utilizing an approach that is accessible, inexpensive, and effective. Tooth-wear grading and 17 cranial measurements were analyzed on 99 skulls of specimens collected from Baldwin County, GA. All pairwise combinations of measurements will be plotted into 136 bivariate scatter plots. Preliminary visual inspection suggests the presence of morphological clustering within the sample; however, formal statistical evaluation is ongoing.

World Languages & Cultures- Spanish, Moderated by Dr. Mariana Stoyanova

A&S 272

147. An Examination of the Nahuatl language on Mexican Spanish

Eowyn Agullo, Mentored by: Dr. Mariana Stoyanova

This project seeks to analyze the indigenous Nahuatl language as it came in contact with Spanish and how it has survived as a lingua franca in Mesoamerica during and after the Spanish conquest. Furthermore, this project will synthesize research that confirms how Nahuatl continuously linguistically influences Spanish and other languages.

148. The Deliberate Development of the Spanish Language

Christina Bonacci, Mentored by: Dr. Mariana Stoyanova

By examining the sociolinguistic landscape of the thirteenth-century Iberian Peninsula and the role of King Alfonso X, this presentation analyzes the forces that deliberately shaped the evolution of Latin into modern Spanish. It argues that this linguistic transformation was not a passive development but an intentional process. The emergence of Spanish as a written and expansive language with prestige was driven by political ambition, intellectual initiative and large-scale translation efforts.

149. The Enduring Linguistic Contact Between Spanish and Quechua

Katie Howell, Mentored by: Dr. Mariana Stoyanova

This presentation aims to explore the long-standing linguistic contact between the South American indigenous language of Quechua and Spanish. By examining linguistic components such as lexical borrowings, phonological shifts, toponym sharing, and syntactic changes, this presentation will examine how the two languages act in a substratum and superstratum relationship and the mutual linguistic influences between them.

150. The Linguistic History of the Euskara Language Isolate

Ella Templeton, Mentored by: Dr. Mariana Stoyanova

Attend this presentation to gain a deeper understanding of what a language isolate is and its correlation with the Euskara language. The presenter will explain the linguistic history of the Euskara language and

expand on how the language changed throughout history due to specific moments of contact. Additionally, the presenter will analyze how speakers of the Euskara language effectively kept their language isolate alive.

Philosophy, Religion, and Interdisciplinary Studies, Moderated by Dr. Jim Winchester
A&S 275

151. An Ethical Quilt: A New Approach to Ethical Theory Crafting

Ryan Gue, Mentored by: Dr. Jim Winchester

For this presentation I have crafted a new ethical theory I have named the ethical quilt. This theory pulls from three well-established theories, Virtue Ethics, Care Ethics, and Simone de Beauvoir's Ethics of Ambiguity to try and craft a more well-rounded and more complete ethical framework. This presentation will go over what additions I have made and how I have combined these theories along with real-world applications of the theory.

152. Effective Democracy in Contemporary U.S. Capitalism

Derek Kim, Mentored by: Dr. Jim Winchester

This presentation discusses how resolving issues in lobbying, antitrust policymaking, and gerrymandering will rectify many other issues present in contemporary US society. Ancient and Enlightenment political theories influencing US economic and governmental systems will be analyzed. Active court cases and policies will also be presented. The research aims to inform the politically-conscientious US citizen about how a deliberate focus on these three underlying issues will lead to a more livable world.

153. Ethics and the Un'Kant'ious Mind

Cameron Sparks, Mentored by: Dr. Jim Winchester

This presentation explores the intersection of ethics and the mind asking the question: "Does human psychology limit our ability to act ethically?" By exploring the theories of Immanuel Kant and Sigmund Freud, it aims to shed light on the practicality of 'rational ethics.'

English, Moderated by Dr. Alex Blazer
A&S 370

154. Comus Glare: Subverting Social Establishment in John Milton's "Masque Presented at Ludlow Castle" and Comus's "First Utterance"

Thomas Creekmore, Mentored by: Dr. Jennifer Flaherty

Both John Milton's "Masque Presented at Ludlow Castle" and Comus's "First Utterance" use the mythological figure of Comus to deconstruct societal establishments while reordering the traditional design of each text's mainstream medium, critiquing contemporary norms relating to corruption and morality by posing a conflict between a corrupting governing force and an innocent figure labeled as the embodiment of chastity.

155. Immortal Amarant: A Sonic Evocation of Milton's "Paradise Lost" through Drone Music

Thomas Creekmore, Mentored by: Dr. Jennifer Flaherty

A breakdown of a musical project adapting John Milton's "Paradise Lost" with drone and dark ambient music. The project, currently titled "Immortal Amarant," aims to evoke the themes and narrative of Milton's literary epic with an experimental sonic landscape, using field recordings, ominous drones, and atmospheric dissonance to create a haunting and sorrowful soundscape.

156. Till Death Do Us Part: How Roman Polanski's Trauma Shaped Macbeth (1971)

Rebecca Price, Mentored by: Dr. Jennifer Flaherty

Till Death Do Us Part is about Roman Polanski and how the trauma he experienced surrounding his wife affected his interpretation of Macbeth (1971). This presentation will specifically explore how Polanksi interprets the characterization of Lady Macbeth and the Macduff murders in relation to his wife.

History & Geography, Moderated by Dr. Stephanie Opperman

Health Sciences Building 201

157. Dancing in Cuba

Anne O'Neill, Mentored by: Dr. Stephanie Opperman

This project will examine how Cuba's dancers' lived experiences at home and abroad influence their perception of the role that professional dance plays nationally and internationally. An analysis of both pre and post- Cuban dance culture will culminate in a digital presentation that centers the study of Cuba within the larger global history of dance in the twentieth century.

158. Empress Elisabeth: The Queen Who Did More than What She's Known For

Loren Simmons, Mentored by: Dr. Stephanie Opperman

Living in the 19th century, Empress Elisabeth of Austria was placed into a position she would soon despise. Often criticized as lazy, detached, or uninterested in court life, Elisabeth has been portrayed as an ineffective monarch. However, this interpretation overlooks the political and social pressures that she faced within the Austro-Hungarian Empire. Rather than being a bad ruler, Elisabeth was a misunderstood historical figure who put herself above a system that dismissed her.

Government & Sociology, Moderated by Dr. Steve Elliott-Gower

Health Sciences Building 202

159. "Going Downtown": An Ethnographic Analysis of Community Building in Milledgeville

Elijah Gates, Mentored by: Dr. Amy Johnson

This presentation explores how the act of "going downtown" contributes to community building in Milledgeville. Through ethnographic analysis, the act of "going" is recontextualized as a social activity that transcends spatial and temporal boundaries. Three themes of community building are explored, which illustrate the ways that "going" strengthens relationships in Milledgeville.

160. Perceptions of Institutional Change: "How do long-serving faculty and staff at Georgia College & State University perceive the evolution of the university's identity and mission?

Madelyn Jones, Sophie Powell, Mentored by: Dr. Stephanie McClure

This research focuses on our central question, "How do long-serving faculty and staff at Georgia College & State University perceive the evolution of the university's identity and mission in light of

recent demographic changes in the student population, and do they view its current direction as aligning with what they would want from their child's university?" We use in-depth interviews with long-serving faculty and staff to determine how they perceive the changes that have occurred since they began working there.

161. The Effect of County Law Enforcement Characteristics on Crime Rates in Georgia: Evidence Using a Panel Regression Model

Emily Wright, Mentored by: Dr. Min Kim

While law enforcement structure and deployment strategies are well-documented, their direct impacts on crime outcomes have not been explored in detail. This study addresses this gap by examining the influence of county-level law enforcement characteristics on crime rates in Georgia. Utilizing data from the GBI's Uniform Crime Reporting Program for years 2019-2023, I employ a panel regression model to evaluate the effects of dual-agency enforcement, vehicle deployment, and patrol hours.

162. Variation in Structured Literacy Implementation and Its Impact on Early Elementary Classroom Learning Conditions

Ella Hollands, Mentored by: Dr. Stephanie McClure

This presentation examines how variation in teacher implementation of structured literacy routines affects classroom learning conditions in early elementary education. Grounded in internship observations, the project builds on initial classroom experiences that led to deeper engagement with sociological research. It explores how teachers, as frontline implementers, make instructional decisions within institutional constraints, and how these variations produce unequal access to consistent, structured literacy instruction within the same school.

11:00 AM – 11:50 AM

Economics & Finance, Moderated by Dr. Brooke Conaway

Atkinson 107

163. Do Police Budgets Affect Civil Asset Forfeiture Rates?

Clay Butler, Mentored by: Dr. Brooke Conaway

This project is a study on the relationship between police budgets and civil asset forfeiture rates. Civil asset forfeiture is a law enforcement practice that allows departments to seize assets that are suspected of being involved in criminal activity, often without due process. Using ordinary least squares and a vector of control variables, I will be running a regression model estimating the effect that budgetary constraints have on civil asset forfeiture.

164. Do State Research Incentives Affect where Semiconductors are Manufactured?

Ethan Montgomery, Mentored by: Dr. Brooke Conaway

This is a presentation on a working paper. In this presentation, I give some background into the semiconductor industry and personal project motivation before talking about how I used empirical evidence and an econometric identification strategy to answer the research question by suggesting causality.

165. Does Parental Income Affect Children's Job Satisfaction?

Ella Thomas, Mentored by: Dr. Brooke Conaway

Rising college costs place financial pressure on families and may have lasting effects on children's career outcomes. This paper examines whether childhood socioeconomic status, measured by parental income, influences job satisfaction in adulthood. While prior research shows a positive relationship between household income and children's academic and economic outcomes, little attention has been given to long-term job satisfaction. Preliminary results suggest parental income is not statistically significant at the 5% level, indicating other factors shape adult job satisfaction

166. Does Parental Substance Abuse Affect Their Child's Marital Status?

Grace Webb, Mentored by: Dr. Brooke Conaway

Using individual-level data from the National Longitudinal Study of Adolescent to Adult Health (ADD Health), I study whether parental substance abuse affects the number of marriages that child has in early adulthood. My preliminary results indicate that individuals who had parents with substance abuse problems were more likely to have fewer marriages in their early adulthood compared to those with parents who did not.

Information Systems & Computer Science and Management, Marketing & Logistics, Moderated by Dr. Heather Patterson

Atkinson 108

167. Defining the landscape for N.I.L opportunities for Divison ll and Division lll Athletes

Johnny Ledford, Mentored by: Dr. Ward Risvold

My presentation will feature statistics, facts, and opinions on the NIL world of college athletics. Also, real world examples of college athletes that have capitalized on the new legislation within college sports. It will be interactive and hopefully capture whoever my audience is.

168. Improving Business Marketing Through Strategic Development

Mia Barone, Megan Morris, Will Howell, Jake Mooney, Mentored by: Dr. Heather Patterson

For our Capstone Strategic Marketing course, my team and I partnered with Ned Kelly's to develop a marketing plan to increase dinner sales and traffic. We collected quantitative and qualitative data through observational research and a customer survey to analyze demographics, customer preferences, brand awareness, and competitive positioning. Based on our findings, we proposed strategies to strengthen dinner demand. I independently designed promotional materials, including flyers and coupons, to support implementation of the strategic plan.

169. Why using Formatted datasets with XML can help prevent hallucination

Ray Khalon, Bo Phillips, Mentored by: Karen Schimdt and Micheal Schimdt

A powerpoint discussing orthogonality and how information organized in an XML format allows the AI to parse information easier, decreasing the errors when compared to a plain text format.

Biological & Environmental Sciences, Moderated by Dr. Dominic DeSantis

A&S 270

170. Acute and chronic responses to thermal stress in the Black Molted Crayfish (Procambarus enoplosternum)

Elias Aufderheide, Mentored by: Dr. David Weese

Investigates the short-term upper thermal limit (UTL) and long-term survival of Procambarus enoplosternum to thermal stress. Little information is known about the resistance of P. enoplosternum to environmental stressors. Our experiment aims to identify patterns of thermal tolerance among individuals that could aid in conservation efforts as global temperatures continue to rise, especially in the United States Southeast.

171. Behavioural responses to field observation in secretive species: case study with Timber Rattlesnakes (Crotalus horridus)

Ozzy Price, Amber Stubbs, Ziv Moench, John Powers, Danielle Bartlett, Jorge A. Vasquez Diosdado, Mentored by: Dr. Dominic DeSantis

We integrated radio telemetry with continuous acceleration recording to assess the potential impacts of regular field observation on the movement behaviour of Timber Rattlesnakes (Crotalus horridus). We found partial support for our broad hypothesis that human observers would be perceived as a potential threat, and that rattlesnakes would elevate activity and time spent moving in response to field observation. We make general recommendations for improved behavioural field study of vipers using radio telemetry and call for additional studies of observer effects on the behaviour of wild-ranging snakes.

172. Integrating Geophysical and Remote Sensing Approaches to Assess Saltwater Intrusion and Vegetation Shifts on Sapelo Island

Megan Martin, Haley Helms, Mentored by: Dr. Christine Mutiti

Despite their importance for coastal resilience, upland vegetation zones on barrier islands remain understudied. This project quantifies long-term changes in coastal vegetation health across major vegetation zones on Sapelo Island, Georgia. Vegetation vulnerability can be detected through several spectral indices including NDVI, EVI, Tasseled Cap Greenness and Wetness, Bare Soil Index, and NDWI which are used to track changes in canopy vigor, vegetation moisture, and surface exposure.

173. Long-term biologging reveals a thermal-activity syndrome in wild-ranging ectothermic mesopredators (Timber Rattlesnakes, Crotalus horridus)

Amber Stubbs, Nickolas Gulotta, John Powers, Mentored by: Dr. Dominic DeSantis

We leveraged recently validated biologging protocols for wild-ranging Timber Rattlesnakes to quantify within-individual repeatability in body temperature and activity. We found positive covariance between these traits, aligning with the thermal-behaviour syndrome hypothesis. Additional effects revealed possible size-mediated foraging strategies, with motivational state shifts in males during the breeding season. This project enables future investigations into variation in fitness outcomes across trait types, potential state-dependent shifts in type, and their role in additional key population-level processes.

World Languages & Cultures- Spanish, Moderated by Dr. Mariana Stoyanova

A&S 272

174. Constructing the Nation Through Song: Corridos, Revolutionary Ideology, and the Formation of Mexican Identity

Valeria Barrera-Vazquez, Mentored by: Dr. Aaron Castroverde

It's easy to classify the Mexican Revolution as a chaotic and divided revolution. However, it's the teachings and ideologies created from the revolution that began to define the Mexican Identity. Corridos, a traditional Mexican narrative ballad that function as storytelling, served as a powerful took

for revolutionary nationalism, shaping public memory by glorifying leaders and constructing a unified shared Mexican identity rooted in resistance and anti-elitism. Through art and literature corridos unified a divided Mexico and created a "Mexicanidad".

175. Historical Origins of Regional Accents in Mexican Spanish

Natelyn Solis, Mentored by: Dr. Mariana Stoyanova

This presentation explores the historical origins of the variation of different regional accents in Mexican Spanish. It explores how colonial expansion, geographical factors, indigenous contact, and social factors contributed to phonological and prosodic features across the central, northern, and southern regions of Mexico, using a historical-linguistic approach. This presentation argues that the accent diversity in Mexico is a natural result of the long-term linguistic and historical evolution; thus, it represents the role of historical processes in changing speech patterns.

176. Resilience and Revitalization: The Enduring Vitality of Chabacano in the Philippines

Valeria Barrera-Vazquez, Mentored by: Dr. Mariana Stoyanova

This presentation details the development of Chabacano language from Tagalog and Spanish, exemplifying its long linguistic vitality on the island. Chabacano, the common name for the Spanish-based creole language formed in the sixteenth and seventeenth century and a symbol of the Zamboangueño heritage. This initiative aims to preserve its distinct linguistic and cultural identity that managed to persevere over several centuries.

177. Spanish Semantic Change: The Unavoidable and Underrated

Liza Rogers, Mentored by: Dr. Mariana Stoyanova

This presentation will explore the causes and outcomes of Spanish semantic change, which is the change in meaning of words over time. This study explores the comparatively understudied topic and shows that, though purists are against many forms of it, semantic change is as necessary and unavoidable in Spanish as it is in any language. Through experiments and previously underappreciated works, this study will delve into Spanish semantic change: the reasons, results, and importance of the process.

Philosophy, Religion, and Interdisciplinary Studies, Moderated by Dr. Juli Gittinger

A&S 275

178. Play, Performance, and Identity Within Fursuiting

Diana Cazacu, Mentored by: Dr. Juli Gittinger

A research presentation focused on the modern phenomenon of "fursuiting" (an aspect of the wider furry community) as a distinctly human desire marked by play, performance, and identity. This discussion will examine this very recently developed subculture with the context of more established research on similar cultures and general human behavior.

179. We're All Doing Time: A Critical Analysis of Angela Y. Davis's Abolitionist Philosophy

Dasia Brown, Mentored by: Dr. Jim Winchester

Through Davis's perspective and secondary sources, this project argues that America's prison system is uniquely flawed, not set in stone, and that its abolition could foster a genuinely safer, more caring society. This thesis examines how these systems target certain demographics, create more danger than safety, and how alternatives are more suitable. It connects historical context to argue the inherent inequity of the system, detail its sociological normalization, and use recidivism data to argue the

punishment model fails. After establishing this basis, I finally engage Davis's key points to propose a shift from punishment to rehabilitation, addressing root causes of crime.

English, Moderated by Dr. Katie Simon
A&S 370

180. "Biotic Life in Abiotic Space: Environmental and Racial Injustice in Harriet Wilson's Our N*g"

Arya Sheth, Mentored by: Dr. Katie Simon

My research presents an ecocritical reading of Harriet Wilson's Our N*g to demonstrate that environmental injustice extends beyond polluted landscapes into racially oppressive domestic spaces. Through the concepts of "biotic" and "abiotic," I display how main character Frado's abused body from her indentured servitude to the Bellmont family is evidence highlighting the importance of how environmental justice must move beyond the outdoors to include lived experiences.

181. Big Man: Horror, Gender, and Punishment in Silent Hill 2

River MacIntyre, Mentored by: Jonna Smith

"Big Man" investigates the complex relationship between horror, gender, and punishment in the video game Silent Hill 2. With a combination of queer and feminist lenses, this essay juxtaposes the game's protagonist–James Sunderland–against the people (and creatures) who surround him, as well as their resultant relationships. These insights are used to uncover a broader understanding for the game's perspective on manhood, womanhood, and monstrosity.

182. Chronic Poetry: An Exploration of Identity through Pain

Maggie Creekmore, Mentored by: Dr. Kerry James Evans

Chronic Poetry is a short poetry volume including five poems themed after the stages of grief, mourning identities rewritten by or lost to physical pain. The poems, "One Last Time," "GOD?," "What if One Day Never Came," "Pretty Dead Girl," and "Look at Me (A Picture of a Blister)" use vicious symbolism associated with ballet to show the inherent grief behind chronic pain and criticize the performativity of suffering.

183. Race, Otherness, and Societal Impact in Medieval English Literature

Bella Young, Mentored by: Dr. Emily Pucker

This presentation examines Medieval English literary works, including The Canterbury Tales, Beowulf, and The King of Tars, while analyzing the bigotry and racism that exist in them. Analysis, without proper commentary, perpetuates the harmful stereotypes contained in these stories, while encouraging them in broader society. This presentation aims to examine the prejudice and discrimination in these works in order to discuss the consequences that come from teaching these works without properly criticizing what they include.

Health & Human Performance, Moderated by Dr. Scott Butler
Health Sciences Building 201

184. How Communism Impacted Sexuality and Sexual Health in Eastern Europe

Sarah Breen, Mentored by: Dr. Scott Butler

A research analysis examining the impact of Communism on both sexuality and sexual health in the Soviet Union and other Eastern Bloc countries from 1917 to the present day, specially focusing on state

policies and trends related to abortion, sexuality, and marriage, both before and after the fall of the Soviet Union.

185. Implementing Food Service Guidelines in Charitable Food Systems of Rural Georgia

Karli Galloway, Damian Francis, Georgia Weaver, Kaitlyn Mavor, Brooke Hoopes, Mentored by: Dr. Damian Francis

This study assesses the implementation of the Healthy Eating Research (HER) Nutrition Guidelines in five settings of the charitable food system (CFS) in rural Georgia. With the SWAP stoplight ranking system, technical assistance was provided by researchers for each food pantry that serves 1,600-2,000 individuals monthly, despite infrastructure and resource limitations.

186. Promoting Global Health Awareness Through Community-Based Health Screenings in Belize.

Alexa Allen, Brenna Gallman, Mentored by: Dr. Kevin Hunt

This five-year study examined health trends among study abroad participants by tracking glucose, cholesterol, blood pressure, heart rate, body composition, and related measures. Students were trained to conduct screenings in clinical and community settings in San Ignacio, Belize, using ACSM and NSNA protocols. Repeated-measures analyses showed consistent improvement across all metrics. Findings suggest that annual screenings and educational workshops effectively encouraged healthier behaviors and supported movement toward ideal health ranges throughout the intervention period.

Government & Sociology, Moderated by Dr. Amy Johnson

Health Sciences Building 202

187. Connecting the Controversial Origins of American Policing to Modern Day Practices

Sanai Irving, Mentored by: Dr. Matheson Sanchez

Policing in the United States has origins in slave patrols established to monitor and capture enslaved peoples in the antebellum American South (NAACP, American Bar). The current study assesses the extent to which these assertions are true by conducting a content analysis on relevant news and journal articles published within the past twenty years. Findings from this analysis will be presented.

188. Corporate Obstruction of Climate Progress

Haley Hargrove, Mentored by: Dr. Steven Elliott-Gower

I will be reviewing the literature surrounding corporations and how they continue to ignore climate change or how they actively influence public policy against binding regulation in order to protect their profits. This will be done by analyzing ecofeminism, corporate environmentalism, corporate citizenship, and compartmentalization in the context of global corporations in a primarily capitalistic world order.

189. Longitudinal Analysis of Demographic Changes in Undergraduate Student Enrollment

Riley Burns, Lillee Key, Mentored by: Dr. Stephanie McClure

This presentation includes the analysis of longitudinal data to determine changes in the enrollment of undergraduate students across the years 1980-2024 at 4 regional institutions. The demographic changes examined in this research are nontraditional students and the geographic origin of students. This will be examined as changes coincide with the declining Black undergraduate student population. Such changes will reveal patterns about the level of access students receive.

1:00 PM – 1:50 PM

Economics & Finance, Moderated by Dr. Brooke Conaway
Atkinson 107

190. Do Concealed Carry Laws Affect Handgun-Related Crime Rates?
Jack Braswell, Mentored by: Dr. Brooke Conaway
This project's goal is to see the effects on concealed carry laws on handgun related aggravated assault crime rates. Using a two-way fixed effect, difference and difference model with data from the FBI, this project is able to see the possible effects of concealed carry licenses.

191. Does Relocation During Adolescence Affect Education Outcomes?
Lauren Decker, Mentored by: Dr. Brooke Conaway
Currently, more than 25 percent of students move at least once during middle school or high school. This may lead to drastic changes in curriculum and friend groups during formative ages, which may hinder future academic performance. Using individual-level panel data from the Add Health data set, I examine the effect of relocation during adolescence on various measures of education outcomes. Previous research has contradictory findings, suggesting additional research is warranted. I find that relocation during adolescence negatively influences high school graduation and standardized test scores, but not bachelor's degree obtainment.

192. Does Scalping Affect the Price of Trading Cards?
JaQuan Moore, Mentored by: Dr. Brooke Conaway
A look into the long term effects of scalping on the price of trading cards sold globally. By looking at the differing gambling policy on trading cards sold in the United States and those sold in Japan this presentation discusses how this law regulated scalping, and how its effects are later represented in the cards prices.

193. Does The Legalization of Gay Marriage Affect Federal Tax Revenues?
Leah Smith, Mentored by: Dr. Brooke Conaway
This paper aims to predict the effects of the following judicial rulings; United States v. Windsor, Obergefell v. Hodges, and the Tax Cuts and Jobs Act. By controlling for political affiliation, population, and year and state fixed effects, using a two way fixed effects difference in difference model, federal tax revenues are understood to increase.

GC Journeys Showcase, Moderated by Dr. Emily Pucker
Atkinson 108

194. Applying Exploratory Data Analysis to Preventative Maintenance Records
Ashley Beaty, Hannah Roberts, Paige Adams, Maci Riley, Mentored by: Dr. Daniel Wu
This project focused on a team that used real-world preventative maintenance data, provided by the Thiele Kaolin Company, to analyze the data and then present recommendations to company executives regarding their findings. Through this project, the team learned and improved their data cleaning and exploratory data analysis skills with Python in Jupyter Notebook. In addition to presenting team results, the team would like to emphasize the benefits gained from this experimental learning opportunity.

195. Fundraising for the Chard Wray Food Pantry: Helping Fight Food Insecurity One Can at a Time

Jonathan Caulley, Hannah Ransom, Rebecca Young, Abigail Dasher, Nevaeh Jones, Mentored by: Dr. Emily Pucker

Our project evaluated the needs of the pantry through discussions with the pantry director and interviews of volunteers and we decided to make a fundraiser to promote and raise funds for the pantry.

196. Writing for the Public Good

Scarlett Cuetto, Jailey Ferrer Negron, Alllie Smith, Emma Jow, Mentored by: Dr. Emily Pucker

We plan to put food donation boxes around several high traffic areas on campus, and hang up flyers explaining what the boxes are for and encouraging students to participate in the food drive. They will remain there for a month, after which we will document which ones were the most successful. We will then use this information to determine which boxes should remain permanently to give constant donations to the food pantry

197. Writing for the Public Good (Brochure)

Breanna Epps, Liz Layati, Finley Pierce, Nicholas Vain, Mentored by: Dr. Emily Pucker

The creation of an updated brochure for the Chard Way Food Pantry.

Biological & Environmental Sciences, Moderated by Dr. Kristine White

A&S 270

198. Characterization of Novel Stress-Response Phenotypes in the sec6-49 Mutant of Saccharomyces cerevisiae

Rebecca DeRoth, Elizabeth Campher, Mentored by: Dr. Ellen France

This project investigates novel phenotypes of the sec6-49 mutant of Saccharomyces cerevisiae. The only known phenotype of the sec6-49 mutant is severe growth defect at 37 °C on rich media, and no other mutant phenotype has been examined. We chose to test effects of caffeine and diamide on the sec6 mutant. Identifying additional growth phenotypes will be important for designing new selection conditions for genetic screens using the sec6-49 strain to identify novel Sec6 interactors.

199. Documenting Halamphora (Bacillariophyta) Diversity in a Coastal Estuarine System

Chloe Carroll, Mentored by: Dr. Kalina Manoylov

This project examines the biodiversity of the newly elevated diatom genus, Halamphora, within Georgia's brackish coastal environment. The mixing of freshwater and seawater creates nutrient conditions that support diverse microalgal communities, reflected by the diatom assemblages observed in samples collected from this region. Several known Halamphora species were documented in addition to nineteen previously undescribed species, confirming the living presence of this genus as well as high biodiversity at this site.

200. Optimization of Electroporation-based Transformation for a High-Sensitivity Genomic Suppressor Screen in Saccharomyces cerevisiae

Elizabeth Campher, Rebecca DeRoth, Mentored by: Dr. Ellen France

This project optimizes electroporation condition in sec6-49 temperature-sensitive mutant yeast cells to improve transformation efficiency for our multicopy genomic suppressor screen. Because comprehensive screening requires at least 10^5 – 10^6 independent transformants, we aim to increase independent transformants and expand genomic coverage by systematically refining voltage conditions,

DNA concentration, chemical pre-treatment, and recovery conditions. These improvements will strengthen our ability to identify genes that rescue defects in Exocyst-mediated vesicle trafficking.

World Languages & Cultures- Spanish, Moderated by Dr. Mariana Stoyanova
A&S 272

201. Bilingualism & How It Can Help With Speech Disorders

Addison Stephens, Katie Rivera, Mentored by: Dr. Mariana Stoyanova

This presentation details the numerous benefits in speech and language development through bilingualism practiced in the home. Bilingualism is shown to have a positive impact on language processing, which is a primary factor involved in speech disorders, therefore, bilingualism, when implemented correctly, would be beneficial to language development and minimize certain speech disorders.

202. Latin American Identity in Modern Art and its Indigenous Roots

Kate Cartmill, Shelby Guerrier, Mentored by: Dr. Mariana Stoyanova

Modern Latin American art has taken a lot of inspiration from indigenous groups such as the Aztecs, Inca and Maya; not only with common motifs, but also with techniques, materials, political and social critiques, and more. The common characteristics from both periods exemplify Latin American identity. The impact of these artists throughout history and the work they create inspires new generations and allows for an enriching experience for the modern world to interpret and enjoy.

203. No Translation Needed

Roxanne Wroe, Rachel Hernandez, Mentored by: Dr. Mariana Stoyanova

Artists like Bad Bunny, Jennifer Lopez, and Marc Anthony have drawn on the roots of indigenous and Afro-Latin music, taken over the mainstream, and had great success, showing that bilingualism and resistance remain at the center of American pop music. These artists have also reshaped the music industry by challenging English-language dominance through Spanish lyrics and Latin rhythmic traditions.

204. Treatment of Hispanic Immigrants: United States Immigration Process

Alli Piatt, Mentored by: Dr. Mariana Stoyanova

This presentation examines the historical, societal, economic, and psychological implications of unethical practices within the United States immigration process as experienced by Hispanic immigrants during the 20th and 21st centuries. Using an investigative approach, this work aims to identify the long-term emotional, cognitive, and social effects Hispanic immigrants endure by analyzing public policy in the United States immigration process. The research focuses on evolving immigration procedures and political reforms that have negatively shaped experiences and community well-being of the Hispanic immigrant population.

Theatre & Dance, Moderated by Dr. Amy Pinney
A&S 275

205. Crafting a Classical Woman: How Alan Jay Lerner's and Frederick Loewe's My Fair Lady reinforces negative standards on women

Beatrice Rowan, Mentored by: Dr. Amy Pinney

In this presentation, I will be exploring the social and cultural impacts of My Fair Lady. Through dramaturgical analysis I will contextualize the musical detailing its impact upon women in modern days. I will discuss how My Fair Lady supports these harmful societal expectations by teaching young women that they must change who they are to be loved by someone.

206. Roll for Initiative: A Dungeon Masters' Guide to Dramaturgical Research in Qui Nguyen's She Kills Monsters

Claire Pluskota, Mentored by: Dr. Amy Pinney

Dungeons and Dragons is a fantasy tabletop role-playing game built on the constructs of friendship, love, and self exploration. Though vast and rich in its culture and history, many artists tend to overlook the importance of D&D culture and its correlation to the LGBTQ+ community.In this presentation I hope to explore these intersecting cultures in detail, and further push the conversation forward in an impactful light for further productions of Qui Nguyen's She Kills Monsters.

207. Well I'll Be: A Dramaturgical Analysis of the Southern-Gothic play, Dearly Departed

Sarah Barnhart, Mentored by: Dr. Amy Pinney

In this project, I will be exploring the social, political, cultural, and historical aspects of Dearly Departed and how the play relates to Southern culture today. For the cast, crew, and creative team wanting to put on this production, dramaturgy is one of the most important parts of putting on this show. Southern culture has evolved immensely since then, and there are many things we can learn from this script.

English, Moderated by Nancy Beasley

A&S 370

208. Flannery O'Connor and Her Use of the Skeptimental

Jackson Benoit, Mentored by: Dr. Matt Bryant Cheney

Flannery O'Connor, prolific Southern author, is a staunch opponent of literary sentimentalism. Through her use of violence, gore, and vicious Catholicism, O'Connor has established an aesthetic of deep un-sentimentality. In this writing, O'Connor exemplifies Devika Sharma's conception of "skeptimentality," an aesthetic mode which highlights social views of underrepresented communities by playing with sentimental assumptions and reversing them. This presentation studies how O'Connor utilizes this mode to critique Southern conceptions of ability, race, and class.

209. Peeta Mellark: The Revolution of Vulnerability & Masculinity

Eowynn Miller, Mentored by: Nancy Beasley

The Hunger Games at its core is about revolution and this does not end with the plot but through the representation of the primary male character as a revolution against the common belief of how men are to behave. This character, Peeta Mellark, is unlike other men in both the literary genre he belongs to and the story he lives within. He changes the cultural understanding of true masculinity.

210. The Present Tension: The Ethics and Practice of Literary Journalism

Dan Johnston, Mentored by: Dr. Kerry Neville

Literary journalism blends personal narrative with journalistic techniques while adhering to literary standards to both guide and entertain. This paper presents the methodology along with an analysis of the demands associated with practicing literary journalism and suggestions for successful project creation. In providing this methodology, craft examples from the author's and others' work will feature guidelines and discussion points.

ALSO: Please consider this as part of a stand-alone panel for Research Day on Creative Nonfiction. I am a GCSU MFA alum and current English MA student, and know that Richard Lassiter (current creative nofiction MFA-candidate) and others may be interested in participating in the discussion. I would be happy to coordinate and can assure the committee that we could fill a graduate timeslot. Thank you for your consideration!

Mathematics, Moderated by Dr. Susmita Sadhu
Health Sciences Building 201

211. Equilibrium Structure and Coexistence in a Managed Predator-Prey Competition Model
Wesley Whitehead, Mentored by: Dr. Susmita Sadhu
This project investigates a three-species predator-prey model with two competing predators and a shared prey, where classical theory predicts competitive exclusion. By introducing density-dependent management controls, such as predator rescue, subsidies, and suppression, we analyze how interventions reshape equilibria and stability. Using analytical methods and numerical bifurcation analysis, the study identifies conditions that promote coexistence, multistability, and transitions between ecological outcomes.

212. Solving Equations by Radicals: From Classical Formulas to the Big Idea of Galois Theory
Annemarie Hanna, Mentored by: Dr. Marcela Chiorescu
This talk presents a brief historical and conceptual journey through the problem of solving polynomial equations by radicals, culminating with the central idea of Galois theory. Beginning with the classical formulas for quadratic and cubic equations, it traces the search for general solution methods and the questions that arose from their limitations. The presentation highlights how Galois theory transforms a question about formulas into one about symmetry and structure.

Psychological Science, Moderated by Dr. Tsu-Ming Chiang
Health Sciences Building 202

213. Exploring Factors Contributing to the Longevity and Quality of Romantic relationships
Alex Bloodworth, Jasmine Davis, Sam Doll, Anne Travis Evans, Joon Sung Kim, Mentored by: Dr. Tsu-Ming Chiang
This project is designed to examine various factors that may contribute to romantic relationships. Multiple factors are examined through an online self-report survey to learn how they contribute to the longevity and quality of romantic relationships. Specifically, five factors are used: age gaps, average time spent together, distance between partners, online versus in-person meetings, and high school versus college relationships. Data collection is in progress. Results will be analyzed and presented at the Research Day.

214. How Celebrities, Moral Framing, Humor, and Skepticis Affect Attitudes and Persuasions
Marianna Hall, Kate Phillips, Mary Perez, Michael Zindel, Mentored by: Dr. Tsu-Ming Chiang
This research project explores how people are influenced by different attitudes and persuasions. An online self-report survey was distributed to college students to examine four specific factors. Specifically,

the project is designed to examine how famous people, humor, moral framing, and skepticism affect participants' attitudes in purchasing a product or donating to a cause.

215. Identifying the Self: Self-Concept and Esteem

Evelyn Lessl, Annabella Allen, Maggie Howard, Marisa Telipsky, Bebe Tanner, Mentored by: Dr. Tsu-Ming Chiang

This study explores how our self-concept and esteem affect us and how it affects the world. Students used an inquiry-based approach as well as literature review to explore topics such as if there is a difference in self-esteem between individuals from different cultures, self-identification of gender identity, difference in self-esteem between men and women, and the impact of self-perceived physical attractiveness on self-esteem.

216. Prosocial Behaviors

Emily Barnes, Kate Threadgill, John Jenkins, Victoria Conde, Mentored by: Dr. Tsu-Ming Chiang

The topic of prosocial behaviors relates to behaviors an individual engages in to help themselves or others. Our group has decided to research four different, but similar topics regarding prosocial behaviors and the benefits/costs to helping others. The topics we have chosen to research serve to inform the audience about certain helping behaviors and how these behaviors help the individual and the community at large.

Rhetoric Performance, Moderated by Dr. Colin Whitworth

Willow Room (located downstairs from the Magnolia Ballroom)

217. What's my Age Again?: A Performance of the Ages

Halle Bergstrom, Josh Jones, Holland Tait, Rachel Lumpkin, Mentored by: Dr. Colin Whitworth

Everyone feels like they are the wrong age at some point—whether it's a nostalgic longing for childhood, dealing with things that feel too adult, or growing up as an "old soul." Blending a variety of performance methodologies, join us as we ask, "What's my age again?"

2:00 PM – 2:50 PM

Economics & Finance, Moderated by Dr. Brooke Conaway

Atkinson 107

218. Do district AI policies shape student achievement in Georgia?

Lorena Cazora, Mentored by: Dr. Brooke Conaway

Generative AI is spreading in K–12 classrooms, yet Georgia districts differ in policies: none, mention-only, or explicit guidance. I merge 2022–23 and 2023–24 district-year EOG proficiency rates in ELA/Math with demographics, SES proxy, attendance, and finances. OLS with year fixed effects compares outcomes by policy strength and expected achievement differences.

219. Does Female Labor Force Participation Affect Alcohol Consumption?

Morgann Fay, Mentored by: Dr. Brooke Conaway

Utilizing a nationally representative survey that follows respondents from adolescence into adulthood from Waves I, III, and V of the National Longitudinal Study of Adolescent to Adult Health (Add

Health), I estimate the relationship between a female's reported hours worked per week and her alcohol consumption in mid-adulthood. My preliminary findings show that female work hours have no statistically significant effect on female alcohol consumption.

220. Does legal counsel have an effect on sentencing?

Leilani Watts, Mentored by: Dr. Brooke Conaway

Currently in the United States, 57% of men and 72% of women who are incarcerated were living in poverty prior to their arrest and could not afford a private defense attorney. The consequences of inadequate representation can be severe, as illustrated by Burdine v. Johnson (2001), in which a Texas defendant's court-appointed attorney was found to have slept through significant portions of the trial, resulting in a death sentence that was later overturned. Utilizing individual case level panel data from the Florida Department of Law Enforcement's Clerk of Court Case Reports, I estimated whether legal counsel has an effect on sentencing.

221. Does the Age at Which a Woman Has Her First Child Affect Her Future Income?

Sarah Blackstone, Mentored by: Dr. Brooke Conaway

This study examines how the timing of first childbirth may shape women's long-term earnings. Delaying childbirth may allow women to complete more education and gain valuable early career experience, increasing income potential. In contrast, having children earlier may reduce career interruptions later in life. The relationship exposes important trade-offs between human capital investment, labor force participation, and family formation timing.

Biological & Environmental Sciences, Moderated by Dr. Kasey Karen

A&S 270

222. Adenovirus Protein E4 11k and the Innate Immune RIG-I Pathway**

Ansley Whitfield, Lizeth Luquin, Mentored by: Dr. Kasey Karen

Our research aims to understand how the adenovirus protein E4 11k inhibits the production of type-1 interferons via the RIG-I pathway of the innate immune response. E4 11k can move the cellular protein DDX6 to aggresomes where it will be degraded, and we hypothesize that this relocalization of DDX6 disrupts the RIG-I pathway. So far, we have used immunofluorescence assay to visualize the translocation of IRF3 as well as the formation of stress granules.

223. Adenovirus Protein E4 11k is an Insufficient Inhibitor of the DNA-PK-dependent DNA Damage Response

Kindle Reeves, Dale Fulcher, Heather Vincent, Mentored by: Dr. Kasey Karen

This project aims to characterize the interaction between adenoviral protein E4 11k and the cellular double-strand break repair DNA-PK complex. Past research has suggested that E4 11k has a role in modulating the activation of DNA-PK, therefore inhibiting ligation of its genome. To investigate this, we quantify the levels of DNA-PK phosphorylation in the presence and absence of E4 11k and various control treatments.

224. Examining the Role of Adenovirus E4 11k Protein on Interferon-Beta Expression

Odeya Atar, Lily Cox, Mentored by: Dr. Kasey Karen

Adenoviruses are double-stranded DNA viruses that cause upper respiratory illnesses. E4 11k, a viral protein of adenovirus, disrupts the cell to generate an ideal environment for viral replication. RIG-I is a viral RNA sensor that activates a signaling cascade to stimulate a type I interferon response. Ddx6

enhances response by interacting with RIG-I. E4 11k redistributes Ddx6 to aggresomes. It is hypothesized that E4 11k binds to Ddx6, leading to a reduction in interferon-beta expression.

World Languages & Cultures- Spanish, Moderated by Dr. Aurora Castillo-Scott
A&S 272

225. Identity, Consciousness, and Othering in Julio Cortázar's "Axolotl"
Jacub Gonzalez-Labra, Mentored by: Dr. Aaron Castroverde
Julio Cortázar's short story "Axolotl," reconfigures how we talk about identity, consciousness, and otherness. Mind bending and ambiguous, the story bring a mirror to our face and look back at all we have inherited from oppression. Within that mirror, Cortázar warps our perception to dismantle false truths and escape from colonial and western production.

226. Language Barriers and Spanish Patients in the United States
Nevaeh Bohannon, Gracie Gillis, Mentored by: Dr. Aurora Castillo-Scott
This research project aims at analyzing, educating, and raising awareness of the experiences Spanish patients, who do not speak fluent English, face in the United States' medical system. Effective communication between patients and doctors is necessary in medical settings for proper safety, care, and treatment. When this communication is not present, research shows there are long term dangers that arise pertaining to the patients' physical and mental health.

227. Spanish as a Scientific Bridge: Language, Latin Roots, and the Global Spread of Medical Discovery
Sophia Beal, Samantha Jimenez, Mentored by: Dr. Aurora Castillo-Scott
This project explores how Spanish-speaking scientists have contributed to modern medicine and how the Spanish language has helped share medical knowledge worldwide. It explains how Spanish and its Latin roots connects scientific vocabulary across languages and makes discoveries easier to communicate internationally. This project highlights important scientists and shows how languages has helped medical ideas spread and influences global research.

228. The Necessity for Bilingual Nurses and How Bilingualism Can be Incorporated Into Nursing Curriculum
Ava Kline, Lilah Englert, Mentored by: Dr. Mariana Stoyanova
As rates of Spanish speaking immigrants within the United States grows, so does the need for Spanish speaking nurses, as they are vital for providing adequate care to Hispanics within the United States. The availability of Spanish speaking nurses can increase with proper education, leading to increased health literacy and quality of care for Hispanic individuals within the United States.

Theatre & Dance, Moderated by Dr. Amy Pinney
A&S 275

229. Shell of Grief: A Dramaturgical Exploration of How Alice by Heart Shows the Grieving Process During World War II
Vee Todd, Mentored by: Dr. Amy Pinney

This project aims to examine the stages of grief and the mourning process as demonstrated in the musical Alice by Heart. I will explore how public opinions on mourning shifted during World War II, how the musical score demonstrates the five stages of grief, and how the protagonist's perspectives as adolescents influences the story and their own understandings of grief.

230. To Anything Taboo: Framing Queer Erasure in American Past and Present Through a Dramaturgical Analysis of Jonathan Larson's Rent

Tess Davidson, Mentored by: Dr. Amy Pinney

Rent is a rock musical by Jonathan Larson that premiered in 1996 about poor artists living in New York during the AIDS crisis. In this project, I will use dramaturgical research about the musical Rent to contextualize the history behind the characters' struggle with AIDS and analyze how their issues and circumstances reflect the erasure of queer people today.

231. Women. Life. Freedom: A Dramaturgical Analysis of Characters' Sociopolitical Circumstances in Toossi's 'Wish You Were Here'

Wandisile Hadebe, Mentored by: Dr. Amy Pinney

The purpose of this research is to show how dramaturgical research is more than research for stories. Sanaz Toossi's Wish You Were Here tells the stories of reality for Iranian women, beyond the small picture we as Americans are shown, and it is necessary to bring that reality to light and build awareness.

English, Moderated by Dr. Matt Bryant Cheney

A&S 370

232. Declining Divinities: The Christian Rewriting of Gender and Power in Icelandic Literature

Allison Decker, Mentored by: Dr. Alex Blazer

This presentation examines the role of Freyja in 13th and 14th-century Icelandic texts, which, recorded at the tail end of the region's Christianization, alter earlier pagan myth through the lens of Christian moral frameworks. Freyja's repeated sexual and social humiliations in these works are uncharacteristic of earlier Icelandic gender models, which often allowed women some social standing and cultural respect. Her treatment reflects a shift toward stricter gender binaries and emerging Christian ideals of female modesty and purity.

233. ParaNorman and the Challenge of Queer Non-Acceptance in Social Spaces

Tatom Curtis, Mentored by: Dr. Alex Blazer

This project is a critical analysis and examination of queer non-acceptance in adolescent stories. This examination delves into how the Laika film, ParaNorman intertwines supernatural abilities with the experience of queerness, showcasing societal acceptance, and rejecting norms of the pre-established world. Norms of the world of ParaNorman will be explored to compare and contrast ramifications of the real world (our world).

234. Striking First: How The Superhero Boom Changed Teen Masculinity on Film Using The Karate Kid Franchise as a Barometer

Kyle Krug, Mentored by: Dr. Blue Profitt

An examination on how the superhero boom of cinema has changed teen male targeted filmmaking using The Karate Kid franchise as an example of the before and after

Education, Moderated by Dr. Kim Muschaweck
Health Sciences Building 201

235. Enhancing Reading Fluency in Students with Specific Learning Disabilities Using Reading Racetracks

Emily Bahena, Mentored by: Dr. Kim Muschaweck

The title of this project is "Enhancing Reading Fluency in Students with Specific Learning Disabilities Using Reading Racetracks". For students with learning disabilities, fostering foundational reading skills can be difficult. Reading racetracks is low cost, effective method that targets the reading skill areas of sight word recognition and reading fluency.

236. Equity in Education: Bridging the Gap for Gifted and Special Education Students

Julia O'Toole, Mentored by: Dr. Cynthia Alby

This project is an applied literature review, examining systemic gaps in gifted and special education programming for twice-exceptional (2e) students. Drawing on sociology of hope framework, educational research, and state policy analysis, my project proposes a multi-dimensional identification process and development model to expand inclusive gifted programming.

237. Examining the Effectiveness of Touch Math with Students with Special Needs

Heather Freeman, Mentored by: Dr. Kim Muschaweck

The purpose of this research was to examine the effectiveness of using the Touch Math curriculum to teach basic addition and subtraction skills to students with a learning disability. The study used a mixed methods design by examining the use of the Touch Math and learner perceptions of the curriculum and their ability to perform basic mathematical operations more functionally.

238. Recruitment and Retention Strategies for 6-12 Band Programs

Landan Frazier, Mentored by: Dr. Tina Holmes-Davis

This presentation hopes to give the reader/audience a better look at retention issues common in middle school band rooms and how to combat those issues with practical strategies.

Psychological Science, Moderated by Dr. Tsu-Ming Chiang
Health Sciences Building 202

239. How Prejudice Affects our Society

Kennady Green, Madelyn English, Meredith Walker, Isabella Cone, Mentored by: Dr. Tsu-Ming Chiang

Project Description: For our project, our focus is on how prejudice affects our society, mainly focusing on media, dating and attraction, social schemas, and medical care. We will go into depth for each one of these topics to explain what they are and how they affect our society and explain our findings from our research.

240. Perceptions and Experiences of Aggression Among College Students

Mary Margaret Ashcraft, Naomi Alvis, Joshua Mills, Katelyn Struchtemeyer, Mentored by: Dr. Tsu-Ming Chiang

This study examines college students experiences with aggression in school, online, and workplace settings. Our survey data explored peer conflict, social media use, emotional regulation, and family or domestic violence. Our findings show common triggers of aggression, barriers to reporting abuse, and strong support for increased campus advocacy efforts focused on prevention.

241. Tardigrades: Ethanol Interferes with Retention of Classical Conditioned Association

Chloe Jones, Hanna Alexandersen, Kendall McCabe, Kara Grieve, Sam Cerone, Walter Isaac, Mentored by: Dr. Walter Isaac

Two apparatuses were used to designate a Blue Zone and Dark Zone. Blue Light (CS) illuminated half of the apparatus and participants migrated to preferred zones. Results showed tardigrades associate CS with sucrose and low ethanol concentration. The 3% ethanol solution was appetitive. Results aligned with hypotheses that a 5% ethanol solution would disrupt blue light/sucrose association. We found only the FP Control condition yielded a significant preference for the Blue over the Dark.

3:00 PM – 3:50 PM

Economics & Finance, Moderated by Dr. Brooke Conaway

Atkinson 107

242. Do Concealed Carry Laws Affect Gun-Related Crime Rates?

Sawyer Spears, Mentored by: Dr. Brooke Conaway

This paper examines whether permitless (constitutional) concealed carry laws affect gun-related crime rates in the United States. Using state-level data from 2020–2023 from the FBI Crime Data Explorer and RAND, I estimate regression models with state and year fixed effects to analyze firearm-related murder, aggravated assault, and robbery. The results suggest no statistically significant relationship at the 95% confidence level, though findings vary by offense type and model specification.

243. Do Prison Education Programs Affect Mental Health?

Sam Kinney, Mentored by: Dr. Brooke Conaway

I used the Survey of Prison Inmates, 2016 dataset to estimate the effect of prison education programs on prisoners' mental health, as measured by depression and feelings of hopelessness. I find that as prisoners take part in prison education programs, they are less likely to feel hopeless, and there is no statistically significant effect on depression.

244. Does Parental Socioeconomic Status Affect the Future Gambling Habits of Children?

Zachary Novo, Mentored by: Dr. Brooke Conaway

Using gambling related questions from the third wave of the National Longitudinal Study of Adolescent to Adult Health, I estimate whether parental income affects the gambling habits of their children. Similar papers find gambling expenditures increase with income, but people with lower incomes spend more of their total budget on gambling.

Chemistry, Physics, & Astronomy, Moderated by Dr. Peter Rosado-Flores

Atkinson 108

245. Food for Fuel Enterprises: Anaerobic Digestion Business Proposal

Rebecca Huisman, Talia Dobkin, Mentored by: Dr. Peter Rosado-Flores

Food for Fuel Enterprises is a proposition for a company that will supply anaerobic digestion solutions for food waste produced by industrial restaurants. The mission of the company is to make sustainable

energy more accessible, and a practiced reality within the food industry. Business considerations such as location, departments, finances, and chemical processes have been included.

246. Synthesis and characterization of Novel Metal Thiosemicarbazone complexes and their bioactivity on Human Topoisomerase IIα

Jayden Kypri, Mentored by: Dr. Wathsala Medawala

This study will focus on the synthesis and characterization of novel alloxan and chalcone benzylthiosemicarbazones (ALL-BzTSCs), their divalent metal complexes, and bioactivity of the compounds on human topoisomerase IIα through enzyme assays using varying concentrations. The goal of this project is to selectively target and inhibit the ATPase domain of the topoisomerase IIα isoform in cancer cells, and to utilize this mechanism as a possible drug for further cancer research.

247. The Detection Of Nitroaromatic Explosives Using Fluorescent Porphyrins Entrapped In Silica Sol-gel Matrix

Sophia Meere, Mentored by: Dr. Catrena Lisse

I will be discussing the nitroaromatic sol-gel sensor that I have worked on developing. The sol-gel acts a colormetric sensor, with a visible change in the porphyrin from a burgandy color to a green color. This color change is due to a pH shift from the reaction between said porphyrin and the nitroaromatic compound. The methodology, reproducibility, and applications will be explored in this presentation.

Biological & Environmental Sciences, Moderated by Dr. Matthew Milnes

A&S 270

248. A Multidecadal Comparison of Intertidal Amphipod Crustacean Diversity and Community Structure on Sapelo Island, Georgia

Kali Holierhoek, Mentored by: Dr. Kristine White

Haustoriid amphipods (Subphylum: Crustacea) are imperative members of intertidal communities but remain poorly studied along the Georgia coast. The last survey of haustoriid diversity in Georgia was conducted in 1967, which documented their community assemblages and distribution across the intertidal zone on Sapelo Island, Georgia. To bridge this gap, we conducted seasonal sampling from 2024–2026 to assess any changes in haustoriid diversity, community composition, and distribution over the past 60 years.

249. Assessing Compost Maturity Through Germination Tests and Nutrient Analysis

Laura Harvey, Mentored by: Dr. Allison VandeVoort

Compost is a useful resource that is effective in agriculture, small gardens, and green infrastructure. It is nutrient-rich and greatly boosts the growth of crops, though it is important to ensure that the compost is fully mature before use, because immature compost can cause a toxic response in plants. This project entails a comprehensive germination index (GI) and nutrient analysis of Georgia College's compost and soil in different stages and contents.

250. Seasonal Changes in Oviduct Structure and Protein Expression of the Eastern Fence Lizard, Sceloporus undulatus

Lizzie Durham, Mentored by: Dr. Matthew Milnes

Reproductive tissues in the Eastern Fence Lizard undergo seasonal remodeling in response to environmental and hormonal cues. Activity peaks in spring and early summer, followed by reproductive quiescence in fall and winter. In this study, we combine histology and immunohistochemistry targeting

β-tubulin, α-smooth muscle actin, and estrogen receptor alpha to characterize structural and functional changes in the oviduct associated with ovarian activity and reproductive status.

251. Subtidal Crustacean Diversity and Distribution on Sapelo Island, GA

Elise Mirabella, Mentored by: Dr. Kristine White

Subtidal crustaceans are an important food source to many organisms and can also act as bioindicators or keystone species. However, their diversity may be influenced by abiotic factors such as wave action and sediment size. This study investigates the diversity and distribution of subtidal crustaceans on Sapelo Island, Georgia. Using a modified beam trawl, samples were taken seasonally throughout 2024 from both a protected and exposed beach.

World Languages & Cultures- Spanish, Moderated by Dr. Aurora Castillo-Scott
A&S 272

252. Amor, poder y equilibrio: cuestionando los desequilibrios de poder y la libertad en el amor romántico

Avery Treadwell, Mentored by: Dr. Aaron Castroverde

This presentation questions power imbalances, control, and possession in romantic relationships through three primary literary works by Kierkegaard, Atwood, and Pardo Bazán. The study analyzes the different historical contexts of these texts and aids in questioning what love and equality mean within the context of romantic relationships presently and throughout history.

253. How Spanish-Speaking Healthcare Workers Increase Efficiency in Healthcare

Alanis Bernis, Emma Wiggs, Mentored by: Dr. Aurora Castillo-Scott

This presentation will be about how language barriers have been an issue involving communication, most specifically, in the health care field. When there is a language barrier between a patient and a health care worker, it can bring a lot of misunderstandings that could cause serious consequences for patient safety and health. An increase in Spanish-speaking workers can drastically raise efficiency in healthcare. Interpreters can also be helpful but they can bring other complications. Direct communication between patients and doctors is most beneficial.

254. Spanish Speaking Americans Influence on the Political World

Meghan Moncrief, Jadyn Williams, Mentored by: Dr. Aurora Castillo-Scott

This presentation is in regards to Spanish Speaking Americans impact on the political world. As the spanish demographic is continueously increasing year by year, so is their involvement in our government and variety of issues. This research explores not only their influence but how this ethnic group is enticed through cultural identity.

255. The Use of the Spanish Language in U.S. Advertising: Analysis of Efficiency, Attitudes, and Perspectives.

Madison Hummel, Blake Hiley, Mentored by: Dr. Aurora Castillo-Scott

The marketing and advertising industries in the U.S. are constantly evolving. With the rapidly diversifying population, it is becoming important for advertisers and marketers to analyze and understand expanding growing markets. The largest racial and ethnic population in the country is the Hispanic population. For marketers and advertisers, it is more essential than ever to recognize the use of the Spanish language within campaigns as a tool to efficiently reach audiences, evoke positive attitudes and promote optimistic perceptions.

World Languages & Cultures- French, Moderated by Dr. Hedwig Fraunhofer
A&S 275

256. Christianity in French Literature and Beyond

Anna Marti, Mentored by: Dr. Hedwig Fraunhofer

What does the word "Christianity" mean in French literature? Reminiscent of contemporary discussions about the role and representation of Christianity in government, René de Chateaubriand's Le Genie du christianisme (1802) is an artistic marker of the start of the Concordat, which reunited the Roman Catholic Church and the French Republic. Émile Zola, Guillaume Apollinaire and Albert Camus also questioned the distinctions between religion, culture, and political power. I compare these authors' works to Biblical passages.

257. The Ecological Divine in French Literary Movements

Kinsley Stevens, Mentored by: Dr. Hedwig Fraunhofer

This is a presentation describing a research paper written with the purpose of conducting an investigation between three French literary movements, Existentialism, Surrealism, and Romanticism and their relationship to the Divine. This connection will be explored through their representations of Nature in three chosen primary texts representative of each movement.

258. Vivre le Camembert

Lily Cox, Mentored by: Dr. Libby Murphy

This presentation will be in French.

Centuries of precise cultivation has pushed Penicillium camemberti to the edge of functional extinction, and camembert to the edge of cultural extinction. Repeated asexual reproduction to preserve the cheese's distinct characteristics has induced a genetic bottleneck, risking future sporulation. Various methods of protecting P. camemberti have been explored, each with cultural pushback. In saving P. camemberti, do we risk losing what makes camembert camembert?

Communication, Moderated by Dr. Colin Whitworth
A&S 370

259. GC Home for the Holidays

Madelyn Agostini, Liberty Klopp, Piper Zegers, Hannah Deal, Talia Hayes, Mentored by: Angela Criscoe

This creative project is a holiday variety show featuring students, faculty, and community members, and was filmed, edited, and produced by volunteer Mass Communication students.

260. Was that the Bite of 87? The Rhetorical Intersection of Nostalgia and Fear in Mascot Horror Video Games

Halle Bergstrom, Mentored by: Dr. Nathan Bedsole

Mascot Horror is an emerging genre of horror video games that have caught the attention of millions through their complex settings, thought-provoking stories, and terrifying monsters. By looking at games like Five Nights at Freddy's and Poppy Playtime, I aim to analyze how these games weaponize childhood nostalgia to create profound fear. Through the rhetorical subversion of "safe" spaces and character designs, this study investigates why familiar and juvenile imagery becomes uniquely unsettling when corrupted through these games.

261. We Won't Be Alone: Digital Performances of Mourning during the COVID-19 Pandemic

Kellen O'Neil, Mentored by: Dr. Colin Whitworth

This review of literature observes the intersection between digital mourning during the 2020 COVID-19 pandemic under the lens of digital performance studies. By understanding the development of digital mourning and connecting it to the ephemeral nature of everyday performance, this review seeks to understand how those in grief utilize technology to make sense of loss, especially in times of collective trauma.

262. Where is the Trash Phoenix now?

Madelyn Rodrigquez, Mentored by: Dr. Colin Whitworth

What happened to the Puppets that were in the Power of Wonder Exhibit in the Atlanta Center of Puppetry Arts? Where did they go? Where are they now? After the Center of Puppetry Arts renovation in 2015, many things changed for the Center. Let's look at what all changed and what all exists now.

Music, Moderated by Dr. Dana Gorzelany-Mostak

Music Rehearsal Hall, Room 130

263. Music and the US Semiquincentennial

Dana Gorzelany-Mostak, Cassidi Buck, Kelsey Carpenter, Peyton Curry, Jacob Hall, Wesley Harper, Alyx Humayra, Ian Purdy, Katie Slaten, Kevin Stinson Gallegos, Autumn Taylor, Gabrielle Van Patten, Kai Williams, David Johnson, Mentored by: Dr. Dana Gorzelany-Mostak and Dr. David Johnson

The US will commemorate the 250th anniversary of the signing of the Declaration of Independence on July 4, 2026. This milestone offers the opportunity to reflect on the compositional practices of American composers. For this class exhibit, students will present research posters and musical performances based on the critical editions they create on the work of American composers.