GSW

GEORGIA SOUTHWESTERN
STATE UNIVERSITY

Undergraduate Research Symposium

Program

April 17, 2026

Symposium Schedule

Time	Event	Location
8:00 AM-8:25 AM	Orientation for speakers, moderators, and judges. Refreshments.	SSC Conference Rooms Foyer
8:30 AM-10:45 AM	Oral Presentations	SSC 2410, 2413, & 2417
11:00 AM-12:15 PM	Poster Presentations	Canes Central, online
12:15 PM-1:30 PM	Lunch	Cafeteria/ Dining room
1:30 PM-2:00 PM	Awards Ceremony	Private Dining room

Special Thanks to the Following for Their Support

Sigma Mu Pi Nursing Honor Society | The GSW Writing Center
The GSW Foundation | Cheri Paradise | Jonathan Hobbs

Volunteer Judges

Susan Bragg | Yongwon Cho | Ellen Cotter | Lauren DiPaula
Gary Fisk | Bonnie Gary | Jonathan Hobbs | Robert Hughey
Anne Jacobs | Sally Merritt | Debra Palmer | Yangil Park
Claudia Parker | Jennifer Ryer | Zhanxin Sha | Elizabeth Shiller
Brooke Stefancik | Anh-Hue Tu | Alexander Yemelyanov

Organizing Committee

Rachel Abbott, Provost | Anne Jacobs, Chair | Rebecca Bidwell
Susan Bragg | Ian Brown | Lauren DiPaula | Michelle Dykes
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Zhanxin Sha | Rhonda Slocumb | Brooke Stefancik

Moderators

Kennedy Daniels | Amelia Howard | Dori Nwagbara | Chris Pickett

Time	Talks in SSC 2410
8:30 AM	BirdDex: A Scalable Bird Identification and Data Modeling Platform **Presenters**: Charles Hiatt, Dominque Solomon, Zackery Payne **Mentor**: Jonathan Hobbs
8:45 AM	Validation of Pathogenic Germline Mutations in MSH6 Gene Associated with Colorectal Cancer Risk in Lynch Syndrome **Presenter**: Delaney Thomas **Mentor**: Surya Amarachintha
9:00 AM	Political Scandals and Their Effect on the Greater Political Divides in America **Presenter**: Connor Harrington **Mentor**: Glenn Robins
9:15 AM	How Monsters Are Made: Thomasin's Demonization in Robert Eggers' *The Witch* **Presenter**: Makayla Jackson **Mentor**: Eugenia Bryan
15-Minute Intermission	
9:45 AM	Societal and Cultural Shifts Following Periods of Panic **Presenter**: Jordan Ellis **Mentor**: Glenn Robins
10:00 AM	The Relationship Between Perceived Normalization of Substance Use and High School Students' Attitudes and Risk Perception **Presenter**: Kiawanna Thomas **Mentor**: Yongwon Cho
10:15 AM	Knowledge Ascension: Integrating Generative AI and Gamification for Structured Study Systems **Presenters**: Brandon Nlewem, David Oyebola, David McGinnis **Mentor**: Jonathan Hobbs
10:30 AM	No presentations scheduled.
10:45 AM	Break before poster session

Time	Talks in SSC 2413
8:30 AM	How to Interpret the Donroe Doctrine: A Case Study Approach **Presenter**: Tyler Johnson **Mentor**: Glenn Robins
8:45 AM	Digitizing Workflows: Ensuring Compliance and Traceability through Digital Logging **Presenters**: Jennifer Baltazar, Aidan Jordan, Jesse Mathis **Mentor**: Jonathan Hobbs
9:00 AM	Synthesis of New Antibacterial Agents **Presenter**: Demijanae Nurinda Aguilar **Mentor**: Jeanne Bolliger
9:15 AM	Judicial Review: Donald J. Trump's Executive Orders **Presenter**: Daniel Odom **Mentor**: Glenn Robins
15-Minute Intermission	
9:45 AM	Growing into Adulthood: How *Alice's Adventures in Wonderland* Teaches Children to Creatively and Critically Think **Presenter**: Taylor Poe **Mentor**: Jennifer Ryer
10:00 AM	BlueClue: Architecting a Context-Aware IT Support Ecosystem **Presenters**: Thomas Newcomb, Jacob Williams **Mentor**: Jonathan Hobbs
10:15 AM	Language, Leadership, and War: British Political Rhetoric Before and During World War II **Presenter**: Colby Hernandez **Mentor**: Jonathan Carter
10:30 AM	Testing the Limits of Power: How the Boland Amendment(s) helped shape the Iran-Contra Affair **Presenter**: Whitney Brown **Mentor**: Glenn Robins
10:45 AM	Break before poster session

Time	Talks in SSC 2417
8:30 AM	Perceptions of the Moral Seriousness of Minor Crimes Across Self-Identified Ethnic Groups **Presenter**: Alisha Kumar **Mentor**: Yongwon Cho
8:45 AM	Misreading the Map: Geopolitical Miscalculations in the Vietnam Conflict **Presenter**: Stephen McDonald **Mentor**: Glenn Robins
9:00 AM	Graph-Based Attack Path Visualizer (GBAV) **Presenters**: Ivey Knight, Christopher Hickman **Mentor**: Jonathan Hobbs
9:15 AM	Predicting Cardiovascular Disease **Presenters**: Cassidy Brunner, Jada Thomas, Hermela Zekarias **Mentor**: Kailash Ghimire
15-Minute Intermission	
9:45 AM	Faith, Policy, and the Politics of Gambling: Religious Influence on Sports Betting Legalization in the United States **Presenter**: Kristyn Griffin **Mentor**: John LeJeune
10:00 AM	Confrontational Conservatism: The Nature of the 1994 Republican Revolution **Presenter**: Jenna Scott **Mentor**: Glenn Robins
10:15 AM	How Polling Data Explains Trump's Presidential Wins and Losses **Presenter**: Siaomee Bagnost **Mentor**: Glenn Robins
10:30 AM	No presentations scheduled.
10:45 AM	Break before poster session

Oral Presentation Abstracts

listed alphabetically by presenter

Title: Synthesis of New Antibacterial Agents
Presenter Name: Demijanae Nurinda Aguilar
Faculty Mentor Name: Dr. Jeanne L. Bolliger
Abstract: Fungal and bacterial infections are commonly contracted by humans and can vary in severity—allergic reactions, skin-tissue infections, etc. Consequently, they affect over a billion people globally every year. By creating new, more efficient ways to target infectious pathogens, we aim to contribute to human health and at the same time reduce economic costs. This research is in pursuit of increasing antifungal and antibacterial activity of a lead compound against human fungal diseases. By making targeted structural alterations to the lead compound such as moving the methoxy group from the para- to the meta-position and synthesizing new analogs containing a variety of alkyl groups we hope to not only increase the activity of these compounds but eventually also to reduce their cytotoxicity. In a first step, we synthesized eight new analogs for which we are in the process of testing them against a variety of bacterial strains using a disk diffusion assay. We expect the activity of our analogs to show a dependence on the chain length of our alkyl group. In future, we hope to expand our testing to fungal pathogens.

Title: How Polling Data Explains Trump's Presidential Wins and Loses
Presenter Name: Siaomee Bagnost
Faculty Mentor Name: Dr. Glen Robins
Abstract: Donald Trump is one of the most controversial presidents in US history. Scholars and journalists have struggled to define him and his appeal. This paper examines polling data to help us understand Trump's win in the 2016 US presidential election and his loss in the 2020 election. I will construct a date set of twenty polls from Pew, Roper, and NPR. These polls will cover issues such as economic anxiety, immigration, and racial attitudes. The preliminary results show that in 2016, many American supported Trump because they were worried about losing jobs, changes in the economy, and immigration. This was especially true for American white working-class voters. In 2020, however, things were different. Some suburban voters changed their support, racial tensions became more important, and many people reacted negatively to how Trump handled major national problems, especially the COVID-19 pandemic. Overall, this study shows that voters' main concerns changed between the two elections, which helped Trump win in 2016 but contributed to his loss in 2020.

Title: Digitizing Workflows: Ensuring Compliance and Traceability Through Digital Logging
Presenter Names: Jennifer Baltazar, Aidan Jordan, Jesse Mathis
Faculty Mentor Name: Dr. Jonathan Hobbs
Abstract: One of the most important things for any company is regulatory compliance. Companies are expected to keep good records and be able to present those records for review by officials. Manual recordkeeping is prone to mistakes and errors; critical information may be missing, formatted incorrectly, or misfiled. We wish to investigate how a well-structured digital system can improve traceability and record accuracy by removing sources of human error. To test this proposal, we have designed a model digital system for recording routes made by company drivers. Route logging is a classic example of a workflow that requires heavy traceability for auditing and funds release, and it's often poorly logged. Drivers can forget to record initial mileage before a route or otherwise eyeball their numbers. Our system removes this ambiguity by automatically recording this data, removing a common source of human error. In our model users employ a mobile app to log routes with a press of a button; these route are then sent for efficient storage in our backend database, which employers can index and review from a website. Models like this display how digitized workflows reduce the capactity for human error, ensuring efficient regulatory compliance and information traceability.

Title: Testing the Limits of Power: How the Boland Amendment(s) helped shape the Iran-Contra Affair
Presenter Name: Whitney Brown
Faculty Mentor Name: Dr. Glen Robins
Abstract: In the 1980s the US government, under the leadership of Ronald Reagan, sold weapons illegally to Iran, which violated the Boland Amendment (prohibited government agencies involved in intelligence from using funds to overthrow the Nicaraguan government), funds from the illegal sale of the weapons were sent to the Nicaraguan Contras. The purpose of this presentation is to examine how congress responded to the violation of the Boland Amendment(s) and what legislation it proposed to ensure future compliance.
I'm going to examine the 2 parts of the Boland Amendments and what they hoped to accomplish after this scandal came to light. We look at scandals like the Iran-Contra Affair and how they challenge the balance between executive authority and congressional oversight.

Title: Predicting Cardiovascular Disease
Presenter Names: Cassidy Brunner, Jada Thomas, Hermela Zekarias

Faculty Member Name: Dr. Ghimire
Abstract: Cardiovascular disease is one of the leading causes of death worldwide. Early prediction of cardiovascular disease is crucial for prevention and timely medical intervention. In this study, we analyze a dataset consisting of different risk factors of heart disease. Two different approaches are used for prediction. The first approach is based on the concepts of multivariate probability distributions to model the relationships among the risk factors. The second approach applies a machine learning technique, specifically logistic regression, to classify whether a patient is likely to have heart disease. The performance of these two methods will be evaluated and compared in terms of their prediction accuracy and precision. The goal of this study is to determine how well statistical modeling and machine learning techniques can assist in predicting cardiovascular disease using multiple health-related variables.

Title: Societal and Cultural Shifts Following Periods of Panic
Presenter Name: Jordan Ellis
Faculty Mentor Name: Dr. Glenn Robins
Abstract: American society experienced a period of moral panic popularly called “The Satanic Panic”. This period was characterized by the widespread belief that organized Satanic cults were operating throughout the country and abusing children in ritualistic ceremonies. This period consisted of thousands of false accusations, numerous high-profile, lengthy trials based on little or no evidence, and countless wrongful imprisonments of innocent people. The catalyst of the Satanic Panic was largely sparked by the publication of the book Michelle Remembers, in which Canadian psychiatrist Lawrence Pazder shares the recovered memories of his patient Michelle Smith. By examining court cases and personal accounts from the time period documenting the supposed violence and mistreatment, I will explain how significant events can alter social structures. Specifically, I will examine how the widespread fear relating to the treatment of children in daycares impacted reform movements. The preliminary research shows that there were key shifts including the implementation of structure mandatory reporting laws, modified child interview techniques and prosecution strategies, and updated daycare regulations. Reflecting back on this societal experience is crucial for understanding how moral panics, largely fueled by unsupported claims and anxieties, can lead to widespread false accusations and reform.

Title: Faith, Policy, and the Politics of Gambling: Religious Influence on Sports Betting Legalization in the United States
Presenter Name: Kristyn Griffin

Faculty Mentor Name: Dr. John LeJeune
Abstract: Sports betting is now legal in 38 states, yet a cluster of states, most notably Georgia, continue to resist legalization despite strong public support. This research examines whether religious opposition shapes not only the resistance of lawmakers to legalize sports betting, but also the legal frameworks that sustain that resistance over time. When religious influence becomes embedded in state constitutions and statutory structures, it can create barriers to policy change that extend beyond any single legislative session. This study draws on four data sources: Pew Research religious demographic data correlated with state gambling law structures, legislative history and news coverage documenting faith-based opposition in key holdout states, academic literature on morality policy theory, and original interview data with Georgia State Senator Carden Summers, who is currently sponsoring legislation to legalize sports betting and casinos in Georgia. Preliminary findings suggest that religious opposition does more than produce political resistance. It can shape the legal architecture that legislators must navigate, even after public opinion begins to shift. Georgia, with its unique constitutional prohibition on gambling, serves as the central case study illustrating this dynamic across the United States.

Title: Political Scandals and their Effect on the Greater Political Divides in America
Presenter Name: Connor Harrington
Faculty Mentor Name: Dr. Glen Robins
Abstract: Scandals are a routine part of modern politics. The Iran-Contra Affair and the Lewinsky-Clinton Investigation were two of the most significant political scandals of the Regan and Clinton Presidencies. The purpose of this project will be to determine the different impacts that each of these scandals had. The analytic categories include the changes in presidential approval ratings, the different political consequences, and the major impact on the media coverage of each scandal. The preliminary results indicate different outcomes for each president. During the Iran Contra, President Regan's approval ratings fell by 16% within two months, while Clinton saw a rise in approval ratings after the Lewinsky Scandal. Both Reagan and Clinton saw much higher levels of political scrutiny with Reagan experiencing the effects of many congressional hearings and Clinton having to navigate a presidential impeachment trial. Both also had to deal with an increase in media coverage concerning their scandals. These scandals are significant because after analyzing them we are able to see in great detail how political scandals can impact an entire nation.

Title: Language, Leadership, and War: British Political Rhetoric Before and

During World War II
Presenter Name: Colby Hernandez
Faculty Mentor Name: Dr. Jonathan Carter
Abstract: When we think of the rhetoric of the Second World War, we typically think of the wartime speeches of Churchill, Roosevelt, Hitler, and Truman. The rhetoric of these leaders and how we understand the war are largely influenced by the speeches and debates of British inter-war period. I performed a comparative analysis of a select number of speeches by the Prime Ministers of the United Kingdom leading up to and during WWII, Stanley Baldwin, Neville Chamberlain, and Winston Churchill, to find out what language they used, how they used it, and why they used it when they did. My research uncovered the commonalities, and more importantly, the differences of the three men in the ways they addressed the war, the defense of the homeland, and what they meant by the people of Britain.

Title: How Monsters are Made: Thomasin's Demonization in Robert Eggers' *The Witch*
Presenter Name: Makayla Jackson
Faculty Mentor Name: Dr. Genie Bryan
Abstract: The puritan values reflected in Robert Eggers' *The Witch* were those of gender hierarchies and shame. The witch trials of the era were based more on shaming women by demonizing them for behaviors we see as normal today. The Puritan community created a monster through their treatment of Thomasin. This presentation will explore how Thomasin was forced into becoming a witch rather than being tempted into it through sin. How did Thomasin's treatment reflect the experiences of real women who lived in Puritan societies? This thesis can be supported with evidence from real historical accounts of the Puritan era and instances in the film in which she was mistreated by her family.

Title: How to Interpret the Donroe Doctrine: A Case Study Approach
Presenter Name: Tyler Johnson
Faculty Mentor Name: Dr. Glen Robins
Abstract: The United States of America's foreign policy has taken a remarkable shift under President Donald Trump. While many commentators across the globe are fearful of America's approach and wonder how it will impact global relations; I intend to show that President Trump's foreign policy in the Western Hemisphere is a continuation of the United States historical approach to global politics. This starts with the establishment of the Monroe Doctrine and now culminates in a return to a more forceful Monroe Doctrine that is being coined as the Donroe Doctrine. My main research question is: What is the Donroe Doctrine? My methodological approach will

be a literature review of US Gov documents, news clips, and speeches. The predicated results are a detailed and coherent plan of foreign policy as it relates to the Western Hemisphere and predictable actions of the United States when it comes to enforcing their policy. This is significant because it is important to define and explain because this will be the leading policy of the United States for at least 4 years and possibly the leading policy for the Republican Party in the US for a Decade or more.

Title: Graph-Based Attack Path Visualizer (GBAV)
Presenter Names: Ivey Knight, Chris Hickman, Olivia Henderson
Faculty Mentor Name: Dr. Jonathan Hobbs
Abstract: Traditional vulnerability reports often present security weaknesses as isolated findings, making it difficult for organizations to understand how multiple weaknesses can combine to form attack paths. This project investigates how graph-based modelling and visualization can improve cybersecurity risk analysis within a small business IT environment by helping organizations analyze attack paths. Enterprise systems and services are represented as nodes in a directed graph, while attacker actions are modeled as edges connecting those systems. Each edge is assigned a weight representing the relative difficulty of performing the attack step. The system stores node, edge, and mitigation data in a relational database and dynamically reconstructs the graph through a data abstraction layer. Because businesses vary in their infrastructure and services, the system must dynamically adjust the graph structure and attack path analysis to reflect different configurations. As graph complexity increases, challenges related to layout, rendering performance, and maintaining readability also emerge. The visualization emphasizes detail, accuracy, dynamic layout, and interactivity to support exploration of potential attack paths. This work demonstrates how vulnerability and infrastructure data can be translated into actionable attack path insights that help organizations better understand their security posture and identify mitigation strategies that reduce the likelihood of successful attacks.

Title: Perceptions of the Moral Seriousness of Minor Crimes Across Self-Identified Ethnic Groups
Presenter Name: Alisha Kumar
Faculty Mentor Name: Dr. Yongwon Cho
Abstract: Moral judgments based on crimes can vary depending on cultural norms, socioeconomic values, and our experiences. Prior studies in psychology suggested that individuals from different ethnic groups may interpret crimes differently depending on cultural norms. However, limited research has examined how different perceptions influence judgments of

minor crimes, including petty theft, jaywalking, shoplifting, and other rule violations. This study examines whether moral judgments of minor crimes differ among self-identified ethnic groups. By understanding these differences, we understand how these perceptions may influence law enforcement and how societal norms affect our community.
Participants will include voluntary undergraduate psychology students recruited from Georgia Southwestern State University, anonymously. The participants will be asked basic demographic information, including age, gender, and self-identified ethnicity. Participants will rate how morally wrong each minor crime is based on their judgment with a scale from (1 = not morally wrong) to (7 = extremely morally wrong). The scenarios in the survey include shoplifting, cheating on exams, illegal downloading, jaywalking, and stealing items. A one-way ANOVA in SPSS will be used to analyze differences in moral judgment scores across ethnicities. This is expected to demonstrate significant differences across ethnic groups and how cultural norms may influence perceptions of minor criminal behaviors.

Title: Misreading the Map: Geopolitical Miscalculations in the Vietnam Conflict
Presenter Name: Stephen McDonald
Faculty Mentor Name: Dr. Glen Robins
Abstract: The Vietnam War (1955–1975) was fought during the Cold War, when the United States sought to contain the spread of communism. As the conflict deepened, U.S. leaders made several political miscalculations that shaped the trajectory of American involvement. This project examines three key errors: the misreading of Vietnamese nationalism as purely communist expansion, the overreliance on the domino theory, and continued support for an unstable South Vietnamese government. Drawing on the scholarship of George C. Herring, George Donelson Moss, and a Vietnam War overview provided by *A&E* HISTORY, the study evaluates how Cold War assumptions distorted policymaking. It argues that these early decisions produced lasting consequences for U.S. legitimacy, alliances, policy commitments, public trust, and diplomatic standing, ultimately contributing to a deeper and more protracted American intervention in Vietnam. By reassessing these foundational misjudgments, the project demonstrates how early strategic assumptions limited U.S. flexibility and complicated later efforts to disengage from the conflict on favorable political terms and international credibility.

Title: BlueClue: Architecting a Context-Aware IT Support Ecosystem
Presenter Names: Clayton McGough, Jacob Williams, Thomas Newcomb
Faculty Mentor Name: Dr. Jonathan Hobbs
Abstract: Today's help desk systems scatter context for each ticket, chat, and

escalation across separate forms, requiring staff and end-users to provide redundant information. Organizations struggle to build and maintain reusable support knowledge accessible to everyone. This study investigates the following engineering question: Can a service-oriented architecture unify multiple IT support channels into a shared context-aware platform while maintaining scalability and reliability? BlueClue answers this challenge by maintaining institutional knowledge through a central, shared relational data model. Channel-specific workflows are decoupled in the backend so each can be managed and extended independently. This is essential when loosely coupled features must be referenced by more than one channel for the same support context. AI classification is implemented as a separate microservice with a known fallback, preventing failures or degraded classification quality from blocking ticket submission to the core system. Our work demonstrates that multi-channel support with shared context can be successfully consolidated; however, it introduces significant architectural depth and coordination overhead. These findings provide operational insight into technology decision makers weighing the costs and benefits of modernizing their infrastructure and consolidating support interfaces into a scalable, sustainable service platform.

Title: Knowledge Ascension: Integrating Generative AI and Gamification for Structured Study Systems
Presenter Names: Brandon Nlewem, David Oyebola, David McGinnis
Faculty Mentor Names: Dr. Jonathan Hobbs
Abstract: Many students struggle to keep effective studying habits, which lessen interest to course material and have a detrimental effect on academic performance. Many students also irresponsibly use AI for work rather than fully comprehending material. The research question examined is: How can generative AI be used in learning application to make study content while also promoting responsible use of AI in an academic environment?
To answer the question, we created Knowledge Ascension, an educational website that can be accessed using mobile phones and computers. People are able to post content in the form of study guides, presentation slides, and docs. These materials are handled by Gemini's 2.5 AI model that restructures the material as multiple choice questions. Questions generated are used in a game in which the users can play in a co-operative or competitive game modes by answering questions. This gamification helps students with knowledge retention. There are controls to keep AI generated questions within the bounds of proper learning material.
The findings are relevant to the existing discourse on the place of generative AI in education by showing a potential way to use AI-generated learning content on a web-based learning platform and focusing on responsible use of

AI systems.

Title: Judicial Review: Donald J. Trump's Executive Orders
Presenter Name: Daniel Heath Odom
Faculty Mentor Name: Dr. Glen Robins
Abstract: The number of executive orders has increased exponentially over the past 50 years. These orders are issued by the President of the United States and do not require consent from Congress. Executive orders can address but are not limited to issues which concern foreign policy, civil rights issues, economic policy, industrial regulations, immigration, and healthcare issues. This paper will examine those executive orders issued by Donald J. Trump that have been challenged in federal and state court. A database of cases will be compiled, and a review will be made to determine if there is any particular category of executive orders that have been challenged more than others. The preliminary results suggest that the executive orders of President Donald Trump have been challenged at an unusually high rate as it pertains to those cases associated with civil rights issues. These questions are important for determining why Trump has had a high number of executive order reviews and also for identifying what constitutional issues have attracted the most attention. This paper also considers the role that executive orders play in modern politics.

Title: Growing into Adulthood: How Alice's Adventures in Wonderland Teaches Children to Creatively and Critically Think
Presenter Name: Taylor Poe
Faculty Mentor Name: Dr. Jennifer Ryer
Abstract: Children, naturally bright and creative individuals, are frequently underestimated when it comes to their ability to process difficult concepts. Often, the act of engaging in social commentary is deemed too complicated for a child, so they are taught far later in life how to think independently. How do we teach young children the art of conversation in complex subjects? This study analyzes how Lewis Carroll uses his stories Alice's Adventures in Wonderland and Through the Looking Glass to explain concepts of the failed education system, Darwinism's effect on philosophy, and political corruption to children. Through close reading of the two texts and analysis of scholarly journals, this study shows how storytelling invites young readers into the adult world of social discourse by engaging them through narrative voice, plot, poetry, and illustrations. Carroll's books show the importance of literature in teaching children to form and articulate personal ideas, which readies them for adulthood.

Title: Confrontational Conservatism: The Nature of the 1994 Republican

Revolution
Presenter Name: Jenna Scott
Faculty Mentor Name: Dr. Glenn Robins
Abstract: In 1994, the Republican Party gained control of both houses of Congress for the first time in 40 years, and driven by dissatisfaction with President Bill Clinton and perceived Democratic corruption, this tidal wave was characterized by a push to enact the "Contract with America." This project examines the question, "What was the nature or essence of the Republican Revolution?" The methodology of this study is to examine what I consider the most confrontational aspects of the Republican Revolution, such as Newt Gingrich and his "Contract with America," with its most confrontational parts: the Citizen Legislature Act, the Common Sense Legal Reform Act, and the Fiscal Responsibility Act, along with Rush Limbaugh's radio host presence. I shall examine what happened in this period through journalist accounts in books and political articles covering the topic to make my own interpretation of this question's answer. This question is important to answer because it illustrates how the ideologies of a few in a political party influenced a greater majority to the point of pushing a whole party into a deeper polarization that prevails today, and it gives us a chance to measure whether it was a revolution or an evolution.

Title: BirdDex: A Scalable Bird Identification and Data Modeling Platform
Presenter Names: Dominque Solomon, Zackery Payne, Charles Hiatt
Faculty Mentor Name: Dr. Jonathan Carter
Abstract: How can a mobile architecture be designed to scale and accommodate the integration of artificial intelligence, cloud storage, and biological classification? The design would be through integration of biological classification data, user-generated imagery, and geospatial observation records. That data would be used for the purpose of supporting species identification and ecological observations. The BirdDex application is an Android-based platform designed to model and manage bird observation data received from users in real-time. It utilizes a Firebase Cloud Firestore NoSQL database to store biological data, including common names, scientific names, species, and family, along with user data, captures, and metadata. Images are processed via an automated AI identification process, where the imagery is analyzed using an AI vision model and then verified via the eBird API provided by Cornell University to cross-reference species data. The media assets are stored twice, with and separately from the user metadata, to enhance scalability and Ai training to improve biological identification. The integration of the biological classification modeling, geospatial modeling, and cloud-based verification pipelines makes the BirdDex platform suitable for the development of scalable systems. Explicitly for supporting artificial

intelligence-based species identification and ecological observations.

Title: Validation of pathogenic germline mutations in MSH6 gene associated with colorectal cancer risk in Lynch Syndrome
Presenter Name: Delaney Thomas
Faculty Mentor Name: Dr. Surya Amarachintha
Abstract: Lynch Syndrome is hereditary with a major predisposition for colon cancer, resulting from pathogenic germline mutations in DNA mismatch repair genes like *MSH6*. Loss of functional MSH6 disables mismatch repair (MMR) proteins to recognize and repair mutations, leading to accumulation of mutations, instability, and ultimately causing cancer. In this study, using bioinformatics, we selected two pathogenic MSH6 mutations (1290del, 2991del) reported in patients and aimed to test their association with colorectal cancer. To induce DNA mismatches, normal mouse colon epithelial cells (mCECs) were treated with H_2O_2 (0.1mM, 1mM, 10mM). 10mM proved lethal to the cells. Immunofluorescence revealed elevated levels of γH2AX foci formation in 0.1mM (7.93±4.06, $p<0.0001$) and 1mM (9.32±4.41, $p<0.0001$) compared to untreated (3.75±1.77), suggesting DNA damage with single and double strand breaks. Further, increased expressions of MSH6 with 0.1mM (0.74±0.56; $p<0.001$) and 1mM (0.28±0.08; $p<0.01$) compared to untreated (0.21±0.05) demonstrated that lower doses of H_2O_2 can successfully induce DNA mismatches. Next, to test pathogenicity of the two mutations, CRISPR Cas9 gene-editing technique was used to generate mCECs expressing Cas9 protein, which can mutate MSH6 gene using a guide RNA. Currently, we are investigating if mutated MSH6 promotes cancer initiation. Overall, our study helps to validate germline mutations of MMR genes in pathogenesis of Lynch Syndrome.

Title: The Relationship Between Perceived Normalization of Substance Use and High School Students' Attitudes and Risk Perception
Presenter Name: Kiawanna Thomas
Faculty Mentor Name: Dr. Yongwon Cho
Abstract: This study examines the relationship between high school students' perceived normalization of substance use and their attitudes and risk perceptions toward engaging in substance-related behaviors. As substance use becomes increasingly visible in media, peer groups, and community environments, adolescents may begin to view these behaviors as typical or socially acceptable. Using a correlational research design, this study explores whether higher levels of perceived normalization are associated with more favorable attitudes toward substance use and lower perceptions of risk. Participants will complete an anonymous survey measuring normalization, attitudes, and perceived harm. Data will be analyzed to determine the

strength and direction of the relationship between these variables. Based on existing literature, I predict that higher levels of perceived normalization will be associated with more favorable attitudes toward substance use and lower perceptions of risk. In other words, students who view substance use as common, typical, or socially acceptable are expected to show greater openness toward engaging in these behaviors and to underestimate the potential harm. Understanding how normalization influences youth decision-making is essential for developing effective prevention strategies, school-based interventions, and community programs. Findings from this research aim to contribute to ongoing efforts to reduce adolescent substance use by highlighting the importance of perception, environment, and social influence in shaping youth behavior.

Poster Abstracts

listed alphabetically by presenter

Posters will be available for early viewing by the morning of April 17th.

Title: How can we reduce CAUTI rates in the hospital?
Presenter Names: Taylor Baptista, Allie Dalton, Emily Davis, Trinity Johnson- BSN Nursing Students
Faculty Member Name: Bonnie Gary
Abstract: Catheter-associated urinary tract infections (CAUTI) are one of the most common hospital-acquired infections and remain a significant concern in many hospitalized patients. These infections contribute significantly to longer hospital stays, increased healthcare costs, and patient morbidity rates. The evidence-based project uses peer-reviewed articles to examine whether the use of external urinary catheter systems reduces the rate of CAUTIs compared to the use of indwelling urinary catheters in hospitalized patients. Our research was guided by the question, “In hospitalized patients, how do the catheter-associated urinary tract infection rates of indwelling catheters compare to the external catheter system?” The articles reviewed showed a consistent reduction in the CAUTI rates within the hospital with the use of external catheter systems. Reducing CAUTI rates will improve patient safety, comfort, and will decrease hospital costs and increase time for higher priority patient care. The results of our research show the critical role nurses play in patient care and safety, infection prevention, proper device maintenance, and ongoing assessments throughout the patient’s hospital stay. The incorporation of external catheter systems into routine practices within the hospital can reduce preventable hospital-acquired infections and increase the quality-of-care patients receive.

Title: Growth Dynamics and Interspecific Interactions Between *Staphylococcus aureus* and *Pseudomonas aeruginosa* in Mono and Co-Culture
Presenter Name: Noah Bridges
Faculty Mentor Name: Dr. Ian Brown, Dr. Anh-Hue Tu
Abstract: How do interspecific interactions influence microbial population growth when two bacterial species occupy the same environment? This study examines the ecological relationship between *Staphylococcus aureus* and *Pseudomonas aeruginosa* when grown individually (monoculture) and together (co-culture). To address this question, bacterial growth dynamics were measured under controlled laboratory conditions. Growth curves were generated by measuring optical density at 600 nm (OD600) at regular time intervals, and viable cell counts were obtained through serial dilution and plating to determine colony-forming units (CFU/mL). These methods allowed comparison of lag phase duration, exponential growth rate, and final population density across treatments. Preliminary observations indicate that *S. aureus* exhibited the fastest growth rate in monoculture, while *P. aeruginosa* grew more slowly. Co-culture treatments appear to alter population growth patterns, suggesting interspecific competition between the two species. These findings contribute to understanding microbial competition and broader ecological processes governing species interactions and population dynamics.

Title: Crystallization of Copper(II) Sulfate in Various Organic Solvents
Presenter Names: N. Bridges, K. Daniels, J. Galvan, J. Haddow, O. Morey, K. Poole, C. Rodriguez
Faculty Mentor Name: Dr. N. Iordanova, Dr. A. Ugrinov
Abstract: Copper(II) sulfate pentahydrate is a well-known crystalline substance widely used in agriculture as fungicide, algaecide, and herbicide. Copper(II) sulfate pentahydrate crystalizes easily in aqueous solutions and can form large single crystals or smaller bulk crystals, depending on the conditions. The process occurs with the inclusion of five water molecules in the crystal lattice of the copper(II) sulfate. This research study focuses on crystalizing copper(II) sulfate single and bulk crystals in various organic solvents: methanol, ethanol, acetone, cyclohexanol, and cyclohexane. Our study will use single crystal X-ray diffraction and powder diffraction methods to characterize the lattice structure of the copper(II) sulfate. The goal is to determine if the organic solvent molecules will become weakly bound to the crystal ions like the inclusion of water in the pentahydrate. Preliminary results show excellent agreement between

the lattice characteristics determined using single crystal X-ray and powder diffraction methods for copper(II) sulfate pentahydrate crystalized in aqueous solution. We anticipate the further characterization of the copper(II) sulfate crystallized in a variety of organic solvents will possibly lead to new copper(II) sulfate crystal lattices.

Title: Population Growth Rates of *Turbatrix aceti* [Panagrolaimidae: Nematodes] in Wildtype and Monoxenic Culture
Presenter Name: Lakyria Burden
Faculty Mentor Name: Dr. Ian Brown
Abstract: *Turbatrix aceti* are free-living nematodes commonly found in acidic environments such as vinegar. This study examines how monoxenic culture impacts the growth rate of *Turbatrix aceti* compared to growth rates in wildtype culture. The monoxenic culture consisted of the nematode *Turbatrix aceti* and the bacteria *Acetobacter aceti*, whereas the wildtype nematode cultures contained multiple species of bacteria and yeast found in unpasteurized apple cider vinegar. The wildtype culture was developed using unpasteurized apple cider vinegar, distilled water, sugar, and apple slices. The monoxenic culture was created by treating wildtype cultures with ampicillin and cycloheximide for 72 hours to remove the wildtype fauna and replaced with a liquid culture of *Acetobacte aceti*. Growth rates were determined from nematode counts. Culture purity was assessed by streaking agar plates to check for contaminants. Wildtype cultures currently show steady growth rates, while monoxenic cultures are expected to show consistently slower growth rates.

Title: Pressure Ulcer Prevention
Presenter Names: Kassidy Clack, Anzley Jarrett, Makayla Chavous, and Lydia Anne Jenkins
Faculty Mentor Name: Bonnie Gary
Abstract: Pressure ulcers are the number one concern for patients in hospital settings, requiring immediate attention to prevent further health issues and remain a significant concern within hospital stays for prolonged periods of time. Pressure ulcers can cause prolonged hospital stays, infections, increased healthcare costs, and affect overall patient health status. This is why pressure ulcer prevention is a top priority when caring for patients in the hospital setting who require proactive intervention to lessen hospital stays and improve scores on the Braden Scale. This evidenced-based project uses peer-reviewed articles to evaluate how the utilization of structured pressure ulcer prevention bundles can help to reduce the development of pressure ulcer complications for patients with long-term stays within the hospital. The question guiding the research “In hospitalized adult patients at risk for

pressure ulcers, how does the implementation of structured pressure ulcer prevention bundle relate to higher scores on the Braden Skin Assessment affect the prevalence of hospital-acquired pressure ulcers within a 6 month period?". The result of the literature review demonstrates effective pressure ulcer prevention provides benefits not just in patient care but also assists the hospital and its employees.

Title: Desiccation Resistance in Mosquito Eggs: How Long Can Eggs Last?
Presenter Name: Abigail Clower
Faculty Member Name: Dr. Ian Brown
Abstract: Mosquitoes are found all over the world due to their diversity and adaptability. Different species of mosquitoes often employ different survival strategies to ensure maximum fitness. The questions this study aims to answer are will the viable eggs only hatch upon the first flooding, or will the eggs hatch staggered among multiple flooding events? These questions will be addressed by incubating mosquito eggs captured on oviposition papers collected by previous undergraduate students and recording how many mosquitoes hatch from those eggs. The dates with the most number of eggs laid and the least number of eggs laid will be incubated, as well as eggs that were collected after 7 days had passed. Hatch rates, male to female ratio, egg counts before and after incubation, and species of mosquitoes hatched will be recorded. Multiple replications will be conducted simultaneously. Results that have been found to date are that mosquito eggs still remain viable after a period of up to five months.

Title: The Effect of Self-Efficacy, Self-Esteem, Problematic Behavior, and Depression on Academic Aspirations and Achievement in College Students
Presenter Name: Hanae Colquitt
Faculty Mentor Name: Dr. Yongwon Cho
Abstract: In college classrooms, academic success is often treated as a matter of being intelligent or exerting effort, yet many students experience challenges that grades and hard work alone cannot reveal. Behind declining GPAs, there may be other struggles with motivation, self-belief, problem behavior, or depression. However, these factors are rarely assessed as a whole, and neither do they operate independently. 452 college-aged students attending the Los Angeles Unified School District were recruited to complete a self-report survey assessing self-efficacy, self-esteem, problematic behavior, depression, academic aspirations, and GPA. A series of hierarchical regression analyses were conducted as methodological approach. The analyses conducted provided partial support for the proposed hypotheses. Self-efficacy was positively related to academic aspirations and GPA, while problem behavior was negatively related to GPA. However, in controlling for

depression, self-efficacy was suprisingly positively associated with problem behavior which, in turn predicted lower depression levels. This unexpected finding prompted the second portion of the study where depression was assessed as a moderator between the two self-constructs and problem behavior. The results showed that the relationship specifically between self-efficacy and problem behavior was significantly stronger amongst students who reported higher levels of depression. These findings showed that self-constructs do not offer clear-cut resolve in limiting delinquent behavior or predicting positive academic outcomes. Together, findings indicate that self-beliefs, behavior, and depression operate in a multiplex manner instead of exerting singular effects, highlighting the importance of psychological context when evaluating student success.

Title: Cognitive Impairment Medications: Effects on Fall Incidence and Injuries
Presenter Names: Katherine Dennard, Patrice Drains, Takera Williams
Faculty Mentor Name: Bonnie Gary
Abstract: Falls resulting in injury are a major issue faced by hospitals. Considered a “never event,” falls with injury in a hospital can extend hospitals stays, impact patient health outcomes, and open healthcare organizations to litigation. Research findings indicate that hospitalized patients with cognitive impairments are at an increased risk for falls, especially when taking medications that treat cognitive impairments such as dementia. The main research question guiding this study is “For hospitalized patients with cognitive impairment, how do medications to treat cognitive impairment, compared to those medication's side effects, influence the risk of suffering from a fall that results in injury?” Answering this question is important because nurses are directly involved with preventing patient falls and reducing the risk factors that increase falls. The evidence-based project used a literature review of multiple studies and reports that discussed the topic of medication and the impact on patient falls.

Title: Do Eastern Gray Squirrels (*Sciurus carolinensis*) Show Food Preferences in Southwest Georgia?
Presenter Name: Grayson Freeman
Faculty Mentor Name: Ian Brown
Abstract: As Georgia deforestation wreaks havoc upon the eastern gray squirrel, the method of distraction feeding becomes a topic of discussion. Distraction feeding uses preferred foods to act as a lure to a specific animal species in order to draw them away from their previously established habitat in order for harvesting or logging to occur on the property without harming the species. This raises the question, do eastern gray squirrels (*Sciurus*

carolinensis) show food preferences in southwest Georgia? To determine which foods were preferred by the eastern gray squirrel, three previously established favorites; peanuts, corn, and sunflower seeds, were chosen to compete with one another across multiple populations of squirrels separated by a minimum of ten miles. By weighing the amount present before or after three days of squirrel feeding, the average loss rate that is the highest will determine the ultimate food preference of the eastern gray squirrel and can be effectively used in the act of distraction feeding to minimize squirrel harm. It is hypothesized that the larger and more nutritious food item, peanuts, will be chosen to be the preference. Preliminary results indicate that this is the case as well with peanuts being the most favored, followed by sunflower seeds, and then finally, corn.

Title: Investigations into the Formation of N-alkenyl triazolones
Presenter Name: Seth Gay
Faculty Member Name: Dr. Jeanne Bolliger
Abstract: Triazolones are common molecular structures found in biologically active molecules. For example, they appear in antifungal drugs such as posaconazole and itraconazole, and they are also found in various agrochemicals, including triazolone-based herbicides. Because of their broad applications, developing new synthetic methods for triazolones that allow access to previously unexplored substitution patterns is of interest in the chemistry field. Recently, the Bolliger group developed a simple strategy to synthesize previously unknown *N*-alkenyl triazolones via a rearrangement reaction. In this research we synthesized new analogs via a multistep synthesis and also investigated the reaction mechanism of the final novel step by isolating a reaction intermediate and resubjecting it to the reaction conditions to yield the final *N*-alkenyl triazolone product. The outcomes of this research included the successful synthesis of the final product on a small reaction scale. Based on these results, it is predicted that the final product can also be synthesized on a larger scale with high yields. Future steps in this research will include more in-depth mechanistic studies including computational experiments.

Title: How Does Prey Size Effect Predation Rates Using Caterpillar clay models?
Presenter Name: Malcolm Hawkins
Faculty Mentor Name: Dr. Ian Brown
Abstract: Predation is an important ecological factor that contributes to the evolution of various species. Differences in prey attributes, namely size, determine how easily a predator can capture its prey. The purpose of this experiment is to answer the question: how does prey size affect predation by

birds? To address this question, model caterpillars were used to measure predation rates on prey of different sizes. Forty models were created from evergreen-colored clay, consisting of twenty 25.4-mm models and twenty 50.8-mm models, each with a height and width of 3-mm. The models were placed on exposed branches and logs along the edge of a forest, secured with superglue, and left in the field for one month while being monitored weekly. The models will then be photographed, collected, and examined for avian attack marks identified by beak impressions in the clay. Predation rates will be compared between the two size groups. It is predicted that the larger caterpillar models will receive more attacks due to their increased visibility to birds. Understanding how prey size influences predation risk can increase our knowledge about how predators and prey interact, broaden our understanding of energy flow within ecosystems, and evolutionary pressures affecting prey species.

Title: What is "Glory" Within Sports Marketing?
Presenter Name: Landon Milton
Faculty Mentor Name: Becca Jones
Abstract: The primary purpose of this research paper is to identify what the term "glory" is within sports marketing. This is important because many marketers use this theme in their sports advertisements, but this theme does not have a proper definition yet. While other researchers could say the advertisements contain the theme of victory, not every advertisement has a victory appeal to their content. However, most of the advertisements have a more glorious appeal. The most efficient approach for this research is to examine the definition of glory across different cultures, such as religions and regions. The expected results are to be able to clearly define what the term "glory" means when utilized in sports marketing. So far, the only findings while conducting this research have been what religious people have described as glory. The results of this research can help sports marketers to be able to target their target market by better utilizing the term "glory." The next steps within this research are to identify the target population for this research.

Title: Survey of the Invasive Plant Species Across the GSW Campus
Presenter Name: Savannah Paros
Faculty Mentor Names: Dr. Ian Brown, Dr. Stephanie Harvey
Abstract: For this project, I will be determining which invasive plant species are the most prevalent (densest/ have the most canopy cover) across the Georgia Southwestern State University campus? In order to do this, I will be using apps such as iNaturalist and FloraQuest to identify and geotag specific individuals in randomly selected areas from a grid map of the campus. The

species of interest are kudzu (*Pueraria montana*), English ivy (*Hedera helix*), Chinese privet (*Ligustrum sinense*), tallow tree (*Triadica sebifera*), and Japanese honeysuckle (*Lonicera japonica*). Once all the individuals of interest are located and tagged both online and physically, I will measure the canopy outreach from the trunk or the crawling outreach from the base of the vine and compile the collected data into an Excel spreadsheet. Currently, I predict that either kudzu or English ivy will be the densest/most abundant species since their vine growth habit allows them to grow on other plants as well as architecture. From the plants I have seen so far, this appears to be supported; however, most plants have only very recently started to bloom (which is necessary for correct identification), so these preliminary results are non conclusive yet.

Title: Quantifying the Nitrogen Fixing Capacity of Bacterial Cultures Using a Spectrophotometric Assay
Presenter Name: Cameron Paul
Faculty Mentor Names: Dr. Ian Brown, Dr. Ahn-Hue Tu
Abstract: Synthetic nitrogen fertilizers contribute significantly to water pollution, nitrous oxide emissions, and eutrophication of aquatic ecosystems. Therefore, more natural sources of nitrogen such as nitrogen fixing diazotroph bacteria, are being investigated as potential substitutes. This study addresses the question; Can the spectrophotometric analysis of a color metric assay, successfully identify potentially high yielding, nitrogen fixing diazotrophs? The assay being assessed uses a cost effective and time efficient spectrophotometric assay to estimate the nitrogen fixing capacity of diazotrophs by implementing a colorimetric Nitrogen-Free Bromothymol Blue pH indicator. Absorbance values when compared to a standard curve determine the amount of atmospheric nitrogen fixed by potential diazotrophs. To date the bacteria *Klebsiella pneumonia* and *Enterobacter cloacae* have both been identified as diazotrophs. These findings support the use of this inexpensive spectrophotometric method for the identification of future potential diazotrophs and the assessment of their nitrogen fixing capacity.

Title: The Impact of Support on Campus Involvement Among College Students
Presenter Name: Raelyn Porter
Faculty Mentor Name: Dr. Yongwon Cho
Abstract: Commuters tend to have more diverse support systems than residents and rely to a greater extent on spouses, relatives, friends, employers, and others off campus to negotiate the demands of a college education (Jacoby, 2000a). Multiple studies have shown that commuters are

less involved on college campuses than residents. These findings are important because they show that there is room for improvement for support for commuters, in order to get them more active on campus. The purpose of this study is to find out if commuters are less active than residents because they need more support. This study will be a quasi- experimental study. My research question is "Is there a difference between residence and commuters in terms of campus involvement?" Commuters and residence represent the two levels in the categorical predictor, and campus involvement is the numeric outcome variable. My hypothesis is: "Compared to residence, commuters will report higher campus involvement rates. Participants will be recruited from Georgia Southwestern State University. A total of 30 students will be assigned to take the campus involvement scale.

Title: Benefits of Video Monitoring and Patient Falls
Presenter Names: Rosemary Porter, Maykin Velasquez-Gonzalez
Faculty Mentor Name: Bonnie Gary
Abstract: Patient falls are one of the most common events that occur in a hospital setting. Fall rates remain high even when 1 to 1 monitoring for fall prevention is used which includes using bed alarms and hourly rounding. This study examines the research question: Does the implementation of continuous video monitoring reduce the incidence of patient falls in hospitalized adults compared to standard fall prevention measures alone? Using a literature review of peer-reviewed articles, studies report mixed but generally favorable outcomes for continuous video monitoring in reducing overall fall frequency without increasing injury severity. Overall, 1 to 1 observation and continuous video monitoring can decrease inpatient falls among patients with altered mental status, with selection best guided by patient acuity, behavioral risk level, and institutional resources.

Title: Predator Inspection Behavior Exhibited by the Eastern Mosquito fish *Gambusia holbrooki*
Presenter Name: Jacqueline Stokes
Faculty Mentor Names: Dr. Ian Brown, Dr. O. Thomas Lorenz
Abstract: Predator inspection is a critical anti-predator behavior in shoaling fish, allowing individuals to assess threat level while balancing predation risk. Social context, shelter availability, and species identity can strongly influence inspection strategies. This study investigates the question; How does *Gambusia holbrooki* exhibit predator inspection behavior? It aims to clarify how species identity and environmental structure interact to shape predator inspection strategies in Gambusia. Shoals of six fish (3 males and 3 females) were exposed to a single predator, *Bettas splendens* (Siamese fighting fish). Latency to inspection, inspection duration, inspection orientation (head

versus tail), and shoaling behavior were recorded over 10-minute trials using video analysis. An artificial plant was provided as cover to evaluate the role of shelter availability during predator inspection. It was predicted that the Gambusia would reflect strong survival-based behaviors such as shoaling or tit for tat strategies during inspection. Preliminary results showed that inspections more likely occurred with one Gambusia by itself, rather than a shoal. These findings suggest that environmental interactions and individual risk-taking behaviors may influence predator inspection strategies in Gambusia. Overall, this study will contribute to broader understanding of anti-predator behavior in social fishes.

Title: Substrate Type and Structural Cover Influence Behavioral Responses and Movement in Freshwater Crayfish (Procambarus sp.)
Presenter Name: Cassidy Ware
Faculty Mentor Name: Dr. Ian Brown
Abstract: Does habitat structure influence the behavior and habitat preferences of freshwater crayfish? Understanding how crayfish respond to different substrates is important because crayfish are key benthic organisms that influence sediment dynamics and freshwater ecosystem processes. To address this question, individual crayfish were placed in experimental arenas containing two habitat treatments: covered sand and covered gravel. Behavioral responses were recorded using an ethogram that categorized walking, burrowing, shelter use, and stationary behavior. Time spent on each substrate was measured to determine habitat preference. Based on preliminary results from six trials, crayfish spent more time on covered gravel in four trials and preferred covered sand in two trials. Walking and burrowing were the most observed behaviors during the trials. These preliminary findings suggest that crayfish may prefer gravel substrates when shelter is present, likely because gravel provides greater structural stability and potential refuge spaces. Understanding these habitat preferences can help clarify how substrate structure influences the behavior and distribution of benthic organisms in freshwater ecosystems.

Title: Population Studies on the Asian Clam (*Corbicula fluminea*) in Town Creek, Americas Georgia?
Presenter Name: Anna Wheatley
Faculty Mentor Name: Dr. Ian Brown
Abstract: A population study was undertaken to answer the question: What is the population status of the Asian Clam (*Corbicula fluminea*) in Town Creek, Americas Georgia? Towne Creek was accessed at four different locations to analyze the abundance, size, and health of the Asian clam. At each location, the creek bed was sampled using 8 randomly placed 30cm2 quadrats. The

sandy substrate in each quadrat was placed in a bucket and sieved to collect all live and dead clams. The length, height, and width of the clams were measured using a caliper, and the visible rings of the clams were counted to assess their relative age. Preliminary results from clams gathered from Magnolia Street, the most downstream location, suggest that potentially the fewest and largest clams will be found more downstream. It is also expected that more dead clams will be found downstream due to the current and increased sedimentation.

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