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Honors Research Symposium Program Spring 2018

Georgia Southern University

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THESIS PRESENTATIONS
Nessmith-Lane Classrooms
Session 1  11:00 am - 12:00 pm

RECEPTION & POSTER PRESENTATIONS  12:15 pm - 1:15 pm
Nessmith-Lane Ballroom

WELCOME  12:30 pm
Nessmith-Lane Ballroom

THESIS PRESENTATIONS
Nessmith-Lane Classrooms
Session 2  1:30 pm - 2:30 pm
Session 3  2:45 pm - 3:45 pm
Session 4  4:00 pm - 5:00 pm
Welcome to the Eleventh Annual Honors Research Symposium. This event is designed to showcase the research and creative activities of the honors students of Georgia Southern University. This year, over 125 honors students will present their work, bringing the total number of participants to over 900 since 2008. The symposium program falls into two main components: poster presentations and thesis presentations.

**POSTER PRESENTATIONS**
Poster presentations are designed for freshmen, sophomores, and juniors. These students are presenting works based on research carried out in the context of honors classes, research based on experiential learning projects, or the preliminary studies for their Honors Theses. In all cases, poster presenters are eager to engage attendees and receive comments on their work. This is particularly true for juniors, who are, in most cases, just launching their thesis research projects.

**THESIS PRESENTATIONS**
Thesis presentations feature graduating seniors who are delivering oral presentations of the results of their Honors Thesis work. Every honors student, in order to graduate as an honors scholar, must complete an Honors Thesis or Capstone Project. As the titles and abstracts in this program indicate, these projects span the realms of inquiry and creativity available here at Georgia Southern University. Also listed in this program are the faculty mentors who have worked with each of these students, providing advice, support, and mentorship as the students have completed these projects.

**ENJOY THE SYMPOSIUM**
Please silence cell phones and do not text during sessions in order to give full attention to all the presenters. Please refrain from leaving sessions early or arriving late if at all possible. If you do plan to leave early to see a different session, please wait until the speaker has finished his or her presentation. Presenters using electronic presentations should load their presentations on the computer prior to the beginning of the session. Moderators will be in each session to make sure presentations run the appropriate length and to moderate Q&A sessions.

**THE UNIVERSITY HONORS PROGRAM**
The University Honors Program provides a small college atmosphere in the context of a large comprehensive university. The program is designed to foster the development of a critical sense of inquiry, a spirit of creativity, a global perspective, and an ethic of civic responsibility. A hallmark of the program is the emphasis on bringing ideas to life through undergraduate research, experiential learning, and service-learning opportunities.
Abigail Johnson
Exercise Science
An Examination of Optimism between Gender, Race, and School Classification of Millennial Students – An Exploratory Study
Dr. Daniel Czech

Optimism is defined as the expectation that good things will happen and bad things are a rarity, which depends upon culturally embedded values (Singh & Shukla, 2014; Lee & Mason, 2013). The purpose of this study is to investigate the differences between optimism, race, gender, and school classification in the Millennial Generation.

Chelsea Rodriguez
Exercise Science
An Examination of Goal Orientation and Motivational Climates between Millennial Student Racial Groups – An Exploratory Study
Dr. Daniel Czech

Motivation climates plays an instrumental role in goal perspective of athletes. An investigation of goal orientation among different racial classifications in a midsized southeastern university used a demographic survey and the Sport Orientation Questionnaire. A one-way ANOVA and Scheffe’s post-hoc test revealed the Asian subgroup scored lowest on goal orientation.
<table>
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<th>Room 2903</th>
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| **Kadien Hill**  
From Fact to Fiction: The Wuxia Experience and the Wushu Practice  
Dr. Juanjuan Peng |

Chinese martial arts, or wushu (武术), and the stories of martial heroes called wuxia (武侠) are related but not the same. Using ancient and modern examples, it will be shown how wushu and wuxia emerged and reveal the realities of their relationship.

**Michelina Restaino**  
The 1492 Jewish Expulsion: An Economic Perspective  
Dr. Kathleen Comerford

In 1492, King Ferdinand and Queen Isabella conquered the last Muslim stronghold and expelled the Jews from their kingdoms. This project explores the economic reasons behind why the expulsion happened and why it was aimed against the Jewish people.

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<th>Room 2904</th>
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| **Kevin Crosby**  
Reverting to the Right: Analyzing the Recent Reversion of Western Liberal Democracies  
Dr. Jamie Scalera |

This investigation analyzes the conditions that have led to the recent rise of far right movements to determine whether Europe may be experiencing a temporary political phenomenon or a more substantial break from previous policies of international integration and liberalism.

**Ashley Archer**  
Navigating the Double Bind: Exploring the Relationship Between Gender, Political Ideology, and Human Rights  
Dr. Courtney Burns

Do female chief executives on the political left exhibit better respect towards human rights than their counterparts on the political right? I study the interaction between a female political leader and her ideology and how this influences navigation of the political double bind and human rights practices within her country.

**Elizabeth Stovall**  
Recruitment of American Citizens to International Religious Extremist Groups Via Social Media  
Dr. Srobana Bhattacharya

This research focuses on how technological advances, particularly social media such as Facebook and Twitter, have made a direct impact on the recruitment processes of extremist terrorist groups such as ISIS on western audiences, particularly on American citizens in combination with other factors such as criminal history and mental illness.
Quinton Taylor  Biology
Size-Dependent Predation on Rough Earth Snakes (Haldea striatula)
Dr. Christian L. Cox

We determined the effects that differences in sex, morph, and size had on the likelihood that a rough earth snakes would experience predation. We examined preserved specimens for evidence of predation and performed a field study using clay models. We found that larger body size increased the likelihood of predation.

Caitlyn Hicks  Biology
The Behavioral Response of Mosquitoes to Different Snake Odors
Dr. William Irby

The response of mosquitoes commonly found in southeast Georgia to odorants produced by various snakes was investigated. Special emphasis was placed on Culex erraticus and Aedes albopictus, as these are thought to be associated with the transmission of Eastern Equine Encephalitis Virus from snakes to other vertebrates.

Kendra Moore  Biology
Morphological Comparison of Fourth-Instar Larvae from Various Populations of Wyeomyia smithii
Dr. William Irby

Populations of pitcher plant mosquitoes, Wyeomyia smithii, have exhibited recent shifts in blood-feeding behavior, likely in response to changes in climate and food availability. A comparison of various morphological structures in fourth-instar larvae was conducted to investigate the hypothesis that geographic and temporal dietary differences are reflected in changes in organismal size.

Tanner Avery  Geology
Temporal Changes in Submarine Groundwater Discharge in a Georgia Salt Marsh
Dr. Jacque L. Kelly

Submarine groundwater discharge (SGD) provides vital nutrients for marine and terrestrial ecosystems and varies spatially and temporally. Continuous radon surveys and marine electrical resistivity surveys suggest that SGD in a Georgia salt marsh estuary is strongly correlated to precipitation. SGD fluxes lag behind an increase in precipitation by 2-7 months.

Bailey Kirk  Mathematics
Mathematics Education Through College Algebra and Calculus
Dr. Ha Nguyen

Georgia Southern University’s faculty conducted assessments on College Algebra and prerequisite skills for Calculus. My research presents the further analysis of these data to show trends within the data that can be used to improve the teaching and learning of some concepts in College Algebra and prerequisite skills for Calculus.
Laurel Sabadosh  
Criminal Justice & Criminology & Psychology

The Inside-Out Prison Exchange Program: Attitudes Towards Prisoners as Reported by College Students
Dr. Chad Posick

The Inside-Out Prison Exchange Program allows students to interact with Smith State Prison inmates in hopes of receiving a deeper understanding of the justice system. The purpose of this study was to examine changes in attitudes towards prisoners of students enrolled in the Inside-Out Program compared to a lecture-based class.

Janice Simon  
Criminal Justice & Criminology

A Comprehensive Study on the Application of the Theory of African American Offending
Dr. Chad Posick

Racial disparity in the criminal justice system has always been a topic of discussion and the question of whether it exist or not. This study examines and confirms that racial disparity occurs at every level of the criminal justice system, subsequently explaining how and why society believes the stereotypes.

Darrell Fullmer  
Multimedia Communication

The Savannah Divide
Professor Abbey Hoekzema

The Savannah Divide is a documentary attempting to define community policing by following a member of a highly proactive unit in the Savannah Police Department. This presentation will discuss the film’s theme, but mainly focus on the production of the documentary and ethical implications faced when creating the film.

Micah Mills  
Mechanical Engineering

Process Improvement of Gulfstream Product Support’s New Business Development Group
Dr. Anoop Desai

Highlights of an extensive continuous improvement project within a business office of Gulfstream Aerospace’s Product Support. Using process improvement and project management techniques a “current state,” “ideal state,” and “future state” were identified. Implementation is expected to reduce man hours and confusion while improving the work environment.

Jefferson Doehling  
Mechanical Engineering

Nanoparticle Penetration of Respirator Masks at Construction Sites
Dr. Aniruddha Mitra

Significantly more nanoparticles are generated during construction activities than previously thought. Thus far, little attention has been paid to workers’ exposure to nanoparticles. Respirators commonly worn to protect against dust are rated to block particles larger than 0.3 microns. This research evaluates the effectiveness of respirators at the nanoscale level.
1. Angelica Tumminello
Surveillance of Mosquitoes in Bulloch County, Georgia, for Canine Heartworm in Canine-Positive Locations
Dr. William Irby

Canine heartworm disease is caused by the filarial nematode, *Dirofilaria immitis*. The nematode is transmitted by 25+ known species of mosquito vector. Surveillance for heartworm-positive mosquitoes was conducted in known heartworm-positive canine locations. One heartworm was identified during the course of this ongoing study.

2. Morgan Gallahue
Trematodes & *Neorickettsia*
Dr. Stephen Greiman

This study aims to increase knowledge about the dispersal of digenean trematodes and *Neorickettsia* in Mongolia. *Neorickettsia* is a genus of bacteria known to cause infections in humans, as well as fatal infections in dogs and horses. Digenean trematodes are parasitic flatworms which may transmit *Neorickettsia*.

3. Tyler Wagner
Synthesis of Au Nanorods with Pd4 Peptide-Capped Pd Nanoparticles Functionalization for Suzuki Coupling Reactions
Dr. Beverly Briggs Penland

Suzuki coupling is a reaction that allows coupling between boronic acids and aryl halides using a Pd catalyst. Although this reaction does not work with chlorinated substrates, attaching Pd nanoparticles to Au nanorods using CPd4 peptide to use as a catalyst should allow the reaction to be more favorable.
Alena Smith & Nathan Carpenter
The Improving Situation in La Carpio
Dra. Leticia McGrath
La Carpio has been given many appellations since being founded in 1992: refugee camp, slum, shanty-town, ghetto, precario, and others. However, its most important title for many is “home.” This presentation will review the evolving socio-economic situation in La Carpio, and how the future shows hope for continued improvement.

Taylor Close
Sexism and Degradation of Women in Reggaeton
Dra. Leticia McGrath
Reggaeton combines classic Latin rhythms like bachata with island beats of reggae. However, reggaeton lyrics further an ideal of machismo, an exaggerated sense of masculinity. This presentation will discuss whether reggaeton has worsened degradation of women, or if it highlights a cultural norm of sexism in Latin America.

Bethany Johnson
The Relationship between Masculinity and Stigma: Predicting Help-Seeking Behaviors in Men
Dr. Thresa Yancey
Based on the stigma associated with men’s mental health, the purpose of this ongoing study is to gain knowledge of help-seeking behaviors in men while evaluating the influences of masculinity and stigma on these help seeking practices.
10. Dashawna Anderson
The Perceptions of College-Aged African American Women on Sexually Transmitted Diseases Infecting other African American Women
Dr. April Schueths
Using a health equity lens, the purpose of this qualitative study is to examine how Black/African American college women living in the southeastern United States perceive the rates and transmission of sexually transmitted diseases (STDs) among the Black/African American female population living in the United States.

11. Amy Rustine
Developing Identity Among Third Culture Kids
Dr. Meca Williams-Johnson
The main issues discussed within research on Third Culture Kids (TCKs) are transition and identity. During transition, school is one thing in which most children are involved, and is therefore a hugely critical experience. This presentation investigates the identity development of college-age TCKs from a variety of educational backgrounds.

12. Alexandra Thompson
Diversity in Education Settings: How Human Diversity Affects Students in the Classroom
Professor Kelly Tharp
Human diversity requires students to be taught by various methods, according to their individual needs. Race, social class, religion, exceptionality, gender and sexuality each play a role in a student's educational experience. This presentation delves into each aspect of diversity and elaborates on how educators can be knowledgeable of these human characteristics so that each child has a positive and fair educational experience.

13. Catelyn Shipp
Shaping Student Study Strategies for Success
Dr. Trent Maurer
This project explores the effect of teaching the successive relearning study strategy to students on their self-reported study strategies for learning course material. It also asks students what instructors would need to do in order to convince them to use a new, more effective study strategy.

14. Victoria Riggs
Morality In the Face Of A Lack Of Objectivity
Dr. Joe Pellegrino
If one assumes “there is no objective truth,” one must conclude that morality is subjective. However, humans are moral beings, and we orient our lifestyles, behavior, and beliefs after our own moral codes. I will examine the extent to which morality can and should be generalized given its subjective nature.

15. Ashlyn Hartman
Comparing National Football League (NFL) Combine Performance to Draft Position for the 2017 NFL Draft
Dr. Greg Ryan
The NFL conducts an annual combine to assess athletic ability with a variety of tests on prospects. We normalized the performance and compare to Draft Round to determine if a correlation existed. A weak negative correlation existed overall, meaning that the NFL Combine performance is related to NFL Draft order.
17. Lillie Moragne & Jessica Ware
Athletes with Disabilities in the Olympic Games
Dr. Brent Wolfe
Looking at the advantages and disadvantages of disabled athletes competing in the Olympic Games. Contemplating the fairness of athletes with and without disabilities competing together.

18. Gabrielle Beasley & Garrett Godbee
Racism in Italian Soccer
Dr. Francis Desiderio
Our poster will explore racism in Italian soccer. We will describe how fans become violent and the different ways they harass opposing teams. We will also discuss the steps the country has taken to put an end to the issue.

19. Ainsley Sellars, Elizabeth Lacey, & Elizabeth Duncan
Women in Soccer
Dr. Francis Desiderio
Our research focuses on the sexualization of female athletes and the gender pay gap between the US Women's National Team and the Men's National Team. The research expands on Title XI and solutions for increasing gender equality.

20. Daniel Hardy, Edward Jennings, Temitope Jegede, & Zach Butler
FIFA Corruption
Dr. Francis Desiderio
With our research poster, our group will tackle the ever-present problem of corruption in the game of football. We will be focusing on the recent scandals surrounding FIFA and the role which the organization and some of its disgraced ex-members played in the adulteration of the sport.

21. Lauren Pearson, Austin Montecalvo, & Zach Mace
Stadium Architecture: Effects and Influences
Dr. Francis Desiderio
This research analyzes the design of different stadia through time and around the world. The aim is to see how they shape the fans and culture, and how the culture and fans shape them. The publications we investigated explore how the stadia are influenced by social, political, and economic factors.

22. Joseph Ham, Sawyer Champlin, & Laura Witteveen
International Soccer Performance Variables
Dr. Francis Desiderio
There are many factors that determine whether a soccer team will fail or succeed, such as economic background, societal appreciation, and effective training techniques. We are comparing teams around the world to understand why some teams like Brazil and Argentina thrive, and teams like Greece and Norway are cellar dwellers.
23. Sydney Forsythe, Cody Prentiss, & Stephen Thomas  
Exploring Player Development and How it will Affect Performance  
Dr. Francis Desiderio  

Our aim is to evaluate the effect of Manchester United’s emphasis on instilling confidence in their developing players. Using penalty kicks as a metric, we plan to test whether this focus on character and confidence building has caused a statistical difference in performance over the last decade.

24. Jessica Kolman, Andrea Appleton, & Katelyn Hughes  
Animal-Assisted Therapy and the Elderly  
Dr. Jerri Kropp and Dr. Trent Maurer  

Our research-based process encompasses the elderly population who suffer from various mental illnesses. The purpose was to see what effect animal-assisted therapy had on this population and how it increases their overall well-being, promotes awareness of AAT, and encourages nursing homes to invest in therapy animals as a treatment.

25. Abigail Martin, Briana Rhodes, & Alana Hall  
Child Sexual Abuse and Animal-Assisted Therapy  
Dr. Jerri Kropp and Dr. Trent Maurer  

Child abuse is a serious problem that can severely affect children globally. After experiencing abuse, these children are left traumatized and vulnerable. Post-Traumatic Stress Disorder is a huge concern for children who have experienced abuse. The research we have synthesized explains the effects that animal-assisted therapy has on these children.

AAT and PTSD  
Dr. Jerri Kropp and Dr. Trent Maurer  

Our research was about animal-assisted therapy (AAT) and its effects on people with PTSD. The research consisted of studies that looked at how AAT affected the severity of the PTSD symptoms in the participants. The research was mostly done using dogs or horses as the animal. Our results concluded that AAT helped reduce the severity of PTSD symptoms.

27. Kyle Combs, Morgan Kilpatrick, Natalie Woodward, & Robert Greene  
Animal-Assisted Therapy with Children with Autism Spectrum Disorder  
Dr. Jerri Kropp and Dr. Trent Maurer  

Our poster explores the benefits of various types of animal-assisted therapy involving horses and dogs. The population we studied was focused on children with autism spectrum disorder (ASD).

28. Johanna Dieudonne & Madison Brewton  
Whose Pipeline is it Anyway?  
Dra. Leticia McGrath  

The representation disparities between women and men in STEM related fields, including factors such as bias and pipeline issues, continuously push women out of the field. This leads to analysis on how far the gender gap has come and how far it still needs to go.

29. Lily Paculis, Maddy Cain, & Jacey Thomas  
Therapeutic Music  
Dra. Leticia McGrath  

Our group will create a poster about therapeutic music. We will discuss what therapeutic music is, the origins of therapeutic music, what genres of music are used, and its beneficial effects when used as another source of healing for patients.
30. Zachary Weiner & Yu Chang  
La Historia de La Carpio  
Dra. Leticia McGrath

In Costa Rica there exist a community known as “La Carpio” which is mainly comprised of Nicaraguan immigrants. Within Costa Rica, Nicaraguan immigrants are looked down upon as second class citizens. We will analyze how the Costa Ricans’ prejudice towards the Nicaraguans led to the formation of this community, the current situation of the people living in La Carpio, and efforts being made to improve the value of life for the community in La Carpio.

31. Alyssa Entrekin, Bodie Fox, & Cassia Mugge  
For-Profit Prisons: The Social and Economic Outlooks  
Dra. Leticia McGrath

Prison privatization or “for-profit prisons” involve the contracting of prison management to third parties within the private sector, thus reducing federal spending in prison management. As a poster topic, we would like to explore what “for-profit” prisons are as well as their pros and cons socially and economically.

32. Rachel Rubio, Gracia Dardano, & Amelia McNamee  
Influence of Hispanic Immigration on U.S. Pop Culture  
Dra. Leticia McGrath

The U.S. has long been known as the metaphorical melting pot of the world, but certain nationalities of immigrants, specifically Hispanic and Latino, have garnered a lot of attention. What impact does Hispanic/Latino immigration have on modern U.S. pop culture? Our poster seeks to answer this question.
Kaitlyn Hodges  
English  
Looking at the Onlookers: The Attitudes of Women’s WWI Poetry  
Dr. Joe Pellegrino  
Women’s WWI poems had differing stances toward the war. Many presented a nationalistic, glorified view of war, while others called into question those ill-informed, jingoistic opinions. A third, more meliorated, type came from women who had active roles in the war industry, writing about how their occupations affected their views.

Madison Heydinger  
Nutrition/Food Science  
Perceptions and Use of Nonnutritive Sweeteners Among College Students Based on Athletic Status, Gender, and Academic Major  
Dr. Joelle Romanchik-Cerpovicz  
Nonnutritive sweeteners may help reduce caloric and added sugar intake. This study determined college students’ sources of nutrition information and perceptions and consumption of nonnutritive sweeteners (NNS). Regardless of athletic status, gender, and academic major, most students relied on the Internet and had negative perceptions and low consumption of NNS. These results suggest a need for nutrition education on the potential benefits of NNS in this population.

Amber Ugbo  
Nutrition/Food Science & Exercise Science  
Adherence of Collegiate Level, Recreational/Intramural, and Non-Athlete College Students to the Mediterranean Diet  
Dr. Joelle Romanchik-Cerpovicz  
This study compared adherences of college students (collegiate, recreational/intramural, non-athletes) to the Mediterranean Diet (MD). Although, overall MD scores did not differ among students, individual scores showed that male athletes consumed more carbohydrates and protein than females. These results could be utilized to help develop specialized nutrition education for students.
Reid Loveless
Biology
Understanding Tumor Microenvironment Using Humanized Zebrafish Tumor Xenograft Model
Dr. Vinoth Sittaramane

Cancer patient mortality is most often a result of metastasis. Despite their implications, the mechanisms in which cancer cells migrate have yet to be fully understood. Using a humanized zebrafish tumor xenograft system, the role of ITGA6 in cancer metastasis and within the tumor microenvironment is explored.

Cassandra Pelton
Biology
Molecular Analysis of MCHM toxicity in Zebrafish
Dr. Vinoth Sittaramane

Chemicals in surface runoff have the potential to induce aquatic animal trait changes, such as altered movement and feeding, that can ultimately alter predator-prey dynamics in aquatic systems. 4-Methylcyclohexanemethanol (MCHM) was analyzed to understand the impact on expression of hsp70, p450, and cyp1a genes in Danio rerio species. QPCR was used to analyze these levels.

Ashley Williams
Biology & Psychology
Understanding the Mechanistic Roles of Integrin Alpha 6 in Tumor Development Using a Humanized Zebrafish (Danio rerio) Model
Dr. Vinoth Sittaramane

Human integrins, cell adhesion receptors, have become the focal points in tumor microenvironment studies, specifically Integrin Alpha 6 (ITGA6) which has been implicated in major tumor progression roles: metastasis and angiogenesis. The present study aims to identify the cellular role of ITGA6 by employing a humanized zebrafish model.
George Lavallin  
**Economics**

The Impact of Brexit Related Events on European and US Exchange Rates

Dr. Axel Grossman and Dr. Mark Yanochik

On June 23rd, 2016, the British public voted to leave the European Union. The purpose of this thesis is to gain an understanding over what effect ‘Brexit’ associated events and announcements had on exchange rates using univariate and multiple regression analysis. The study showed the event day exchange rate changes were mainly influenced by the referendum event.

Uzoma Okoye  
**Economics**

2008 Financial Crisis and the Deviation From the Taylor Rule

Dr. Mark Yanochik

This study analyzes the financial crisis from the point of view of monetary policy. In particular, did the Federal Reserve's policy actions deviate from a rules-based framework?

Jordan Salvador  
**Marketing**

Beyond Higher Ed Marketing: Unsanctioned User Generated Content

Dr. Lindsay Larson

This study aims to better understand how widely disseminated the impact of User Generated Content (UGC) on higher education marketing is among students, how they perceive this content and its impact upon their university, as well as what kinds of students are drawn to participate in and consume this content.

Bernadette O’Donnell  
**International Studies & Spanish**

Indigenous Tribes in the Brazilian Amazon: Finding a Balance between Sustainability and Economic Development

Dr. Matthew Flynn

If the factors inhibiting the preservation of indigenous tribes in the Brazilian Amazon continue, there will be further reduction of this population. This study answers the question: How can Brazil sustain isolated Indigenous tribes in the Amazon without compromising its own economic development?

Nicholas Matthews  
**Political Science**

Millennial Voting Patterns in a Politically Polarized America

Dr. Joshua Kennedy

What factors influence the low voter turnout of the Millennial generation in elections? I argue that the low turnout for millennials is a direct result of an increased polarization in government and the perception that the American government does not represent all people.

Emily Elizabeth Shannon  
**Political Science & Psychology**

How do Active Citizens and Political Maximalists Benefit the Individual and the Community?

Dr. Robert Pirro

Do active citizens experience the individual benefits promised by political maximalism? Theories of political maximalism suggest that individuals benefit cognitively, emotionally and imaginatively by active participation in politics. Active citizenship benefits the individual and the community as well through more stable government, more civic solidarity, and more egalitarian social relationships.
Recent advancements in cancer treatment have increased the pediatric cancer survival rate, but there is also an increased risk for developmental delays in these patients. This study examined the cognitive and social-emotional developmental outcomes of pediatric cancer survivors who currently receive or have previously received chemotherapy.

With the increasing number of cancer survivors and longer survival rates, the well-being of cancer survivors has become a vital focus for healthcare teams. This study examined the communication gap between healthcare teams and cancer survivors and how this gap might be affecting cancer survivors' quality of life.

Mental illness affects a fifth of the adult population every year, with many of these illnesses being triggered in peoples' college years. Unlike physical illnesses, stigma towards mental illness often prevents people from utilizing resources that could help prevent, identify, and treat these illnesses. Does this stigma impact GSU students?
David Jackson

*K2: The Savage Mountain*
Professor Lisa Abbott, M.F.A.

Throughout all history theatre has held a staple in all societies and cultures around the world. A lot of work goes into a production: play selection, research, design meetings, auditions, rehearsals, tech rehearsal, and performances. For my research capstone I have gone through the directing process for Patrick Meyer’s K2.

Kasi Bitter

*Ke hoe Family Short Stories*
Professor Ben Drevlow

*Ke hoe Family Short Stories* highlights Savannah, Georgia’s rich history of Irish immigration. Each of these three stories and one flash piece is fueled by archival and genealogical research, supported through the incorporation of original artifacts, and filled in with original prose.

Michelle Daly

*Magic Born*
Professor Laura Valeri

A young, orphaned boy, living in a medieval high fantasy world where magic is seen as a threat, learns that his mentor has been using his magic in a plot to resurrect the dead which the boy needs to stop before the spirits destroy the world and everyone in it.

Mitchell Mayes

Logistics & Intermodal Transportation

*Drone Implementation: Regulatory Barriers*

Dr. Matthew Jenkins

Drones and drone delivery have been around for years now, so what is stopping them from being implemented? With the help of an interactive matrix the issues with regulatory barriers to drone implementation and the approaches companies are making become clear.

Alea Simmons

Management

*Attitudes and Behaviors of Medical Students Towards Business Education and Training*

Dr. Steven Charlier

The study’s purpose is to gauge the importance of business education and training to medical students. We found that the vast majority believe that business education is important; however, MD/MBA programs do not appear to appropriately meet the needs of these students.

Xxavier Robertson

Multimedia Communication & Management/Hospitality

*Social Media Marketing Implications for the Hospitality Industry*

Dr. Stan Suboleski

The overall focus of this study is to describe the correlation between social media performance and financial profitability. This study documents social media performances of two organizations, correlates their performances with financial performances, and determines that there are benefits in understanding and applying conclusions drawn from social media interactions data.
Jenae Smith  Chemistry
Evaluation of Coated Gold Nanorods on Zebrafish Embryos
Dr. John Stone
Gold nanoparticle utilization has increased in the last decade. Depending on the materials used, nanoparticles can vary in toxicity. Zebrafish were used to evaluate the overall toxicity and effects of the nanoparticles. It has been demonstrated that we can selectively kill zebrafish injected with gold nanorods under near-infrared (NIR) irradiation.

Kristi St. Clair  Chemistry
Assessment of Catalytic Function of Gold Nanorod-Bound TEMPO under NIR Irradiation
Dr. John Stone
Gold nanorods absorb light which oscillates the electrons on the surface. The localized heating of rods via irradiation can be utilized to enhance the effectiveness of attached organic catalysts which allows the oxidation of alcohols at room temperature. Previously, similar catalytic systems required high temperatures, reducing the lifetime of the catalyst.

Carlie Novak  Chemistry
Quantum Chemical Analysis of Stable Noble Gas Cations for Astronomical Detection
Dr. Ryan Fortenberry
The search for possible, noble gas molecules has led to the quantum chemical, spectroscopic analysis of NeCCH+, ArCCH+, ArCN+, and ArNH+. Consequently, the result of this work provides high-level spectroscopic data to aid in the search for covalently bound noble gas molecules in observable regions of outer space.

Kathryn Keith  Anthropology
Examining Origins and Reasoning for Beliefs Surrounding Contraceptive Practices in College Women
Dr. Jennifer Sweeney Tookes
This research studies how students’ perceptions, actions, and thoughts around contraceptive practices develop over time and through college, focusing on how educational background, religion, culture, and relationships influence their choices.

Amanda Sexton  Anthropology
Covering the Costs of Curation: A Comparative Analysis in the Southeastern United States
Dr. Matthew Compton
Many anthropologists have acknowledged that archaeology has been experiencing a curation crisis. They also agree that one of the leading causes of the curation crisis is a lack of funding. To explore this idea, surveys have been sent to repositories to ask about their policies and fee structures.
Vernon Herrington  
Civil Engineering  
3D Modeling using Close-Range Photogrammetry via UAV  
Dr. Gustavo Maldonado  
This research compares the accuracy of distance measurements in models generated via Close-Range Photogrammetry (CRP) to a model generated using laser scanning. The two different processes of creating these models are also compared to determine the efficiency of CRP for practical purposes in the field of civil engineering.

Kayla Allen  
Civil Engineering  
Analysis of Tensegrity Structures Using Abaqus  
Dr. Gustavo Maldonado and Dr. Shahnam Navaee  
This project involves modeling and analysis of a tensegrity structure using the finite element approach utilizing the Abaqus software. A tensegrity structure is a special type of assembly consisting of a series of straight solid members, arranged in various geometrical configurations in three-dimensional space and held together by a series of cables.

Trey Miller  
Construction Management  
A Comparison of Traditional Education and Project-Based Education in Construction Management  
Dr. John Dryden  
The skills needed to run a job site effectively are unique to the Construction Management field. In many cases students receive an engineering-focused education instead of a project-management focused education. By structuring classes around an applied project, students will more directly apply their education to a future career.
Sydney Wright  
**Biology**  
**Analysis of Genes Encoded by a Chromosomal Insert in**  
*Rickettsia philipii*  
Dr. Marina Eremeeva

*Rickettsia philipii* is an emerging human pathogen. PCR-based methods were used to detect eleven unique genes encoding for proteins which may contribute to virulent properties of *Rickettsia*. Bioinformatic tools were utilized to identify homologous proteins in *Rickettesiales* and other bacteria, and to exploit their putative functions in *R. philipii*.

Danielle Souza  
**Biology**  
**Testing Viability of Oligonucleotide Primers on Microsatellite Markers Amplified by Polymerase Chain Reaction on Dermacentor variabilis Samples from the Bulloch County Region of Georgia, USA**  
Dr. Quentin Fang

Six oligonucleotide primer pairs were published for *Dermacentor variabilis*, however, not all were working equally well for polymerase chain reaction. This study is to test the primers 3B, 5E, 6F, Est120, DVA28, and DVA31 on DNA samples of *D. variabilis* to determine their efficiency at amplifying microsatellite markers with PCR.

Madison Kelly  
**Biology**  
**The Combined Effects of Atrazine and Tetracycline on Primary Producers and Zooplankton in Freshwater Microcosms**  
Dr. Risa Cohen

Agrochemicals enter aquatic systems in mixture, but toxicity is usually measured for individual chemicals. Therefore aquatic plants, algae and grazers were exposed to herbicide and antibiotic alone or together. Aquatic plants in mixture experienced the most damage while algae responded only to herbicide, indicating potential for altered aquatic community composition.
Claire Zecha  
Nursing  
Nurse Practitioners Integrating Spirituality Into Practice  
Dr. Rose Mary Gee

This research study aims to determine the extent to which nurse practitioners value and integrate spiritual care practices in the clinical setting. It is hypothesized that nurse practitioners will believe spirituality is a key component of holistic care but fail to actually implement spiritual care practices with their patients.

Jonathon Hall  
Psychology  
Navigating a Minefield: Interactions Concerning Psychopathy, Stress Resilience, and Mock Interrogations  
Dr. Amy Hackney

This study seeks to simultaneously invert and synthesize much of the existent body of literature on the topics of both interrogation proceedings and psychopathy. The scope of this project focuses on factors that allow the guilty to resist confession via manipulative tendencies stemming from psychopathic personalities in an experimental setting.

Ashley Williams  
Psychology & Biology  
Discovery of Novel Quinoline Derivatives as Psychotherapeutic Agents  
Dr. Janice Steirn

The discovery of novel psychotherapeutic agents which exhibit high potency and low toxicity remain in high demand. The present study aims to identify the psychotropic potential of quinoline-derived compounds. The initial screening of ten quinoline-derivatives revealed a varying degree of effects on motor function in fish.

Ashleigh Marion  
Early Childhood Education  
Read, Write, and Relax: Teachers’ Perspectives on the Decrease of Naptime in Kindergarten  
Dr. Meca Williams-Johnson

The purpose of this study is to understand teachers’ perspectives of the decrease in nap time. I interviewed kindergarten teachers who have experience teaching in classrooms with and without naptime. The participants described their views and experiences with the decrease of naptime. They also explained why naptime is decreasing.

Emily Deyton  
Music Education /Choral Sequence  
Best Practices for the Changing Male Voice in Secondary Choir Classrooms  
Dr. David Langley

The goal of this study is to determine if the best practices described by scholarly literature on the changing male voice are being put into practice in secondary choir classrooms in Georgia and, if so, how effective they are perceived as being.

Megan Fromme  
Special Education  
Special Education Teachers’ Response to Consistent Changes in Curriculum Standards  
Dr. Meca Williams-Johnson

This research explored how the changing standards have influenced special education teachers’ efforts to meet the needs of their students and the teachers’ perceptions of the consistent changes in standards. A narrative, qualitative design was used, which involving eight participant interviews.