Symposium on
Undergraduate Research
2019



Wednesday, April 3
Tallahassee Community College
Fine and Performing Arts Center

Presented by the Tallahassee Community College Council on Undergraduate Research

Thanks to our Sponsor

This year's Undergraduate Research Symposium would not have been possible without the very generous support of the TCC Foundation. A College Innovation Fund grant provided much of the financial support for this year's symposium, including refreshments, production of publicity materials, the printing of high-quality full-color posters, and the cost of printing this booklet. We are so grateful to all of the TCC Foundation's generous donors for their support of this worthy cause.



Faculty, Students, Friends of TCC,

On behalf of the Tallahassee Community College Undergraduate Research Council, we welcome you to the first annual TCC Undergraduate Research Symposium. TCC faculty routinely support student research, yet there has never been one event highlighting these efforts across all disciplines. This year, because of the generous support of the Tallahassee Community College Foundation's College Innovation Fund Grant, our students will display their research for the first time. We invite you to see the remarkable efforts and talents put forth by our students: papers and oral presentations, performing or visual arts, film presentations, or posters. It is with great pride that we showcase the accomplishments of our students. These efforts, however, would not be possible without the mentoring of our faculty who partner with students to produce quality results. Faculty bring their wisdom, their disciplinary knowledge, and their experience; students bring their intellectual curiosity and their enduring optimism. Together, they not only advance knowledge, they provide infinite hope for the future.

We are pleased that you are joining us in the first of many TCC Undergraduate Research Symposiums. We are confident that this event will be a catalyst for our students, many of whom will progress to more advanced research after they leave TCC. We hope that you enjoy your day with us.

Tallahassee Community College Undergraduate Research Council Co-Chairs;

Dr. Richard Murgo

Dean,

Behavioral Social Sciences and Education

Dr. Tracy Woodard

Dean,

Communication and Humanities

PROGRAM AT A GLANCE

9:00-9:30	**Performing Arts and Film Presentations** **CH 158**
9:45-10:45	**Oral Presentation Panels** **FPAC 104 and FPAC 121**
11:00-12:00	**Oral Presentation Panels** **FPAC 104 and FPAC 121**
12:15-1:15	**Lunch and Speaker** **FPAC Lobby**
1:30-2:30	**Oral Presentation Panels** **FPAC 104 and FPAC 121**
2:45-3:45	**Visual Arts *Artist Talks*** **Fine Arts Gallery**
4:00-5:00	**Poster Presentation Student Talks** **FPAC Lobby**
5:00-6:00	**Reception and Awards** **FPAC Lobby**

FULL SYMPOSIUM SCHEDULE

9:00-9:30 — Performing Arts and Film, CH 158

Moderator: Tricia Rizza

"The Calliope Effect"
Original Composition on Piano
Autumn Maxwell
Faculty Advisor: Vijay Subramanian

"The Sprain Arrestor"
Original Film
William Gilmore
Faculty Advisor: Dr. Renee Gordon

9:45-10:45 — Oral Presentations

FPAC 104
Moderator: Stephen Banister

"Unsung Heroes of Research"
Lauren Cocke
Faculty Advisor: Nicolette Costantino

"The System D Economy"
Samuel Goetz
Faculty Advisor: John Schultz

"The Roots of Jasmine"
Sierra Eklund
Faculty Advisor: Dr. Melissa Soldani-Lemon

"The New Water Filter: Atmospheric Water Generator"
Sidney Lyght
Faculty Advisor: John Schultz

"A Family of Patriots"
Aaron Amidon
Faculty Advisor: Dr. Melissa Sodani-Lemon

FPAC 121
Moderator: Rick Murgo

"National Memorial for Peace and Justice"
Tourean Underwood
Faculty Advisor: John Schultz

"Beyond the Blue Sphere"
Antwain Parker
Faculty Advisor: Dr. Everett Montgomery

"APA James Archie Still Remains"
Erica Sirmans
Faculty Advisor: Dr. Melissa Soldani-Lemon

"The Friendship Bench"
Esmeralda Lucio
Faculty Advisor: John Schultz

"Cummings-Pyles/Myles Family Tree"
Marcayla Cummings
Faculty Advisor: Dr. Melissa Soldani-Lemon

11:00-12:00 — Oral Presentations

FPAC 104
Moderator: Carol Miller

"Genealogy Research"
Annika Berentsen
Faculty Advisor: Dr. Melissa Soldani-Lemon

**"From Darkness to Light:
A Call for Cultural Change"**
Jazmen Green
Faculty Advisor: Sarah Marchessault

"Research on Edwin C. (Billy) Burkhalter"
Galen Goram
Faculty Advisor: Dr. Melissa Soldani-Lemon

FPAC 121
Moderator: Renee Gordon

"The Removal: How They Lost Their Homes"
Ansley Corson
Faculty Advisor: Dr. Melissa Soldani-Lemon

**"George Wilson and Mable Fortner
Research Casefile"**
Tye Leishman
Faculty Advisor: Dr. Melissa Soldani-Lemon

"Diversity in Entertainment"
Mia Kahn
Faculty Advisor: Dr. Donya Samara

**"Measures for Increasing Driver Safety
Among Older Adults: Implications
for Florida's Aging Population"**
Averie McDaniel
Faculty Advisor: Daniel Beugnet

12:15-1:15 — Lunch and Speaker, FPAC Lobby

1:30-2:30 — Oral Presentations

FPAC 104
Moderator: Kelli Herm

"Will E-Books Destroy the Future?"
Lauren Cocke
Faculty Advisor: Nicolette Costantino

"Abstract Expressionism in Art History"
Catherine Lessard
Faculty Advisor: Jen Robinson

"The Art of Acculturation"
Robert Sanderson
Faculty Advisor: Vijay Subramanian

"Artificial Intelligence in the Healthcare Industry"
Migdalia Cordova
Faculty Advisor: Rachel Laudadio

FPAC 121
Moderator: Rick Murgo

"How Blogging Has Changed Over Time"
Jazmine Hawkins
Faculty Advisor: Daniel Beugnet

"Power Needs No Gender"
Katherine Rogers
Faculty Advisor: Tom Waller

"The World Book of Tippins"
Sierra Knowles
Faculty Advisor: Dr. Melissa Soldani-Lemon

"The Impact of Increasing Political Polarization on Political Discourse"
Aaron Amidon
Faculty Advisor: Tricia Rizza

"Hedda's Need of Feminism"
Maria Castorena
Faculty Advisor: Dr. Donya Samara

2:45-3:45 — Visual Arts *Artist Talks*, Fine Arts Gallery

Moderator: Julie Schmidtman-Baroody

"Light and Shadow"
Isabelle Hayslip
Lilijana Obradovic-Edmiston, Faculty Advisor

"On a Walk"
Keara Dana
Lilijana Obradovic-Edmiston, Faculty Advisor

"The Island Nation of Vanuatu"
Jack Peddie
Melissa Scalzi, Faculty Advisor

"You Hope for Something Holy, Something Bright to Hold Onto"
Xylia Jackson
Lilijana Obradovic-Edmiston, Faculty Advisor

"Gun Violence and Contemporary Art"
Delana Duca
Lindsey Smitherman-Brown, Faculty Advisor

"Mask-Inspired Jewelry"
Shelvin Pilot
Julie Schmidtman-Baroody, Faculty Advisor

"Flower of Life"
Emma Wharton
Julie Schmidtman-Baroody, Faculty Advisor

"Color Value Self Portrait"
"Current Topic Stipple Art"
Amora Randolph
Lilijana Obradovic-Edmiston, Faculty Advisor

"Invasive Parrots"
Sophia Amidi
Lilijana Obradovic-Edmiston, Faculty Advisor

"Master Copy of Caravaggio's Saint Peter"
Sean Cain
Lilijana Obradovic-Edmiston, Faculty Advisor

"Rangoli Art: Traditional Floor Drawing in India"
Mousumi Banerjee
Lilijana Obradovic-Edmiston, Faculty Advisor

"Vermeer Study Over a Japanese Kimono Pattern"
Yasuko Miyamoto
Lilijana Obradovic-Edmiston, Faculty Advisor

"Self Portrait: Color Value"
Josiah Fontenot
Lilijana Obradovic-Edmiston, Faculty Advisor

4:00-5:00 —– Poster Presentations, FPAC Lobby

Moderator: Teresa Paliwoda

"Vaccination-Induced Longevity and Safety"
Joshua Reynolds
Dr. Renee Gordon, Faculty Advisor

"Methods of Ambient Mass Spectronomy"
Sagan May
Dr. Renee Gordon, Faculty Advisor

"Chinese vs. Western Medicine in Women's Health"
Melissa Sims
Shakonda Diggs, Faculty Advisor

"Haiti and Its Importance to the Francophone World"
Jenny Duval
Melissa Scalzi, Faculty Advisor

"Teaching Methods for a Productive Primary Class"
Danielle Brown
Sara Marchassault, Faculty Advisor

"Animal Testing and Animal Rights"
Paige Williams
Coleman Mackie, Faculty Advisor

"Margaret Browning's Abortion Farm"
Susie Childers
Dr. Melissa Soldani-Lemon, Faculty Advisor

"The Communist Control Act of 1954"
Brandyn Davis
Dr. Melissa Soldani-Lemon, Faculty Advisor

"The Social and Governmental Aspects of Djibouti"
Qaaree Abdul-Bari
Melissa Scalzi, Faculty Advisor

"The Warp Drive: Hyper Fast Travel Within General Relativity"
Nicolas Timmons
Rex Albert, Faculty Advisor

"Alternative Biomass"
Chantal Brown
Dr. Renee Gordon, Faculty Advisor

"Ventricular Heart Failure and Mapping of the Heart"
Daniela Orellana
Dr. Renee Gordon, Faculty Advisor

"Holocaust Newspaper Design"
Brenna Smith
Teresa Paliwoda, Faculty Advisor

"Violent Video Games and Aggression"
Alesha Benjamin
Dr. Renee Gordon, Faculty Advisor

"Building Leaders Through Service Learning"
Steven Rivero
Melissa Scalzi, Faculty Advisor

"The Millennium Tower"
Kaylan Stapleton
Dr. Renee Gordon, Faculty Advisor

"Aviatrix, Actress, and Writer"
"Eva Rablen, Housewife or Murderer?"
Sarah Forner
Dr. Melissa Soldani-Lemon, Faculty Advisor

"Should Bacteria Be Genetically Engineered to Treat Diseases?"
Alexandra Rosario
Dr. Renee Gordon, Faculty Advisor

"Artificial Intelligence in the Healthcare Industry"
Migdalia Cordova
Rachel Laudadio, Faculty Advisor

"Effective Motivation Strategies Used By Teachers"
Aedan Reed
Sarah Marchessault, Faculty Advisor

"Diabetes in Youth and Middle-Aged Adults"
Kisha Lucate
Dr. Renee Gordon, Faculty Advisor

"The New Water Filter: Atmospheric Water Generator"
Sidney Lyght
John Schultz, Faculty Advisor

"Diagnosis of Alzheimer's Disease Based on Cognitive Evaluation Using Virtual Environments"
Olaseni Adedeji
Dr. Renee Gordon, Faculty Advisor

"High Dynamic Range Imaging (HDR) in the Entertainment Industry"
YaSin Abdul-Musawwir
Dr. Renee Gordon, Faculty Advisor

5:00-6:00 — Reception and Awards, FPAC Lobby

Presenter Abstracts

*Abstracts are alphabetized by presenters' last names.

THE SOCIAL AND GOVERNMENTAL ASPECTS OF DJIBOUTI

Qaaree Rakhshanda Abdul-Bari

Faculty Sponsor: Melissa Scalzi, Behavioral, Social Science and Education

This poster will present a concise summary of the unique history of how the Francophone country, Djibouti, developed its unique cultural identity and governmental structure. This will include the earliest origins of Djibouti as well as its long history for independence from European, specifically France, and other African countries. There were many cons to the French's conquering of Djibouti, but one advantage is that it did; however, open the country to many new ideas and introduce a diversified people and culture. On the downside, since its newly gained independence in 1977 Djibouti has been forced to deal with different issues, in particular, the fact that Djibouti is not a self-reliant country and is deeply dependent on other countries for sustenance.

HIGH DYNAMIC RANGE IMAGING (HDR) IN THE ENTERTAINMENT INDUSTRY

YaSin Ali Abdul-Musawwir

Faculty Sponsor: Dr. Renee Gordon, STEM Program

This project will compare cinematic three-dimensional (3-D) technology with the emerging digital media format – High Dynamic Range Imaging (HDR). 3-D was recently seen as cutting-edge Hollywood production, but is now being phased out by other immersive theater experiences. From television to the silver screen, technology and entertainment industry insiders now identify HDR as the future of digital media production. This project will assess the nature of HDR and its advantages over other formats within the entertainment industry. Using reviews of entertainment leaders, manufacturers, and postproduction and visual effects houses, the following will be assessed: 1) Ease of use, 2) Cost of implementation, and 3) Popularity within the entertainment industry. From these findings, the best digital media format with the highest value for the entertainment industry will be determined.

DIAGNOSIS OF ALZHEIMER'S DISEASE BASED ON COGNITIVE EVALUATION USING VIRTUAL ENVIRONMENTS

Olaseni Adedeji

Faculty Sponsor: Dr. Renee Gordon, STEM Center

Virtual Environments were utilized for cognitive testing to detect early-onset Alzheimer's Disease. By using virtual rooms instead of pen-paper test, virtual environments focused on the patient's memory loss related to common objects and events. This was achieved by incorporating advanced Human Computer Interaction systems. Results of human testing utilizing virtual environments displayed the ability to distinguish between test subjects that were diagnosed with Alzheimer's Disease and those that were labeled as healthy adults.

INVASIVE PARROTS

Sophia Amidi

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

This piece is discussing the issue of parrots becoming invasive species. Many places are having major issues with pet parrots being released into the wild, thriving, and being parasitic to the areas' ecosystems. Many states are making certain species illegal for this reason. This piece shows the damage these animals are capable of, while also representing how innocent they are since they do not know what they are doing. This is done by showing the destruction of a field while the parrots have playful looks on their faces. This piece was for my illustrations class referencing what we have seen in the news. This stuck out to me because I rescue parrots.

A FAMILY OF PATRIOTS

Aaron J. Amidon

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

The Amidon family has an extensive history of military service dating back to the Revolutionary War. This paper examines the whereabouts and interactions of Capt. Henry Amidon and his son Sgt. Moses Amidon. These patriots were involved in events ranging from serving under the command of General George Washington in the battle of White Plains to the enlistment in the Lexington Alarm. Military rosters and unit tracking, ancestral data and event descriptions will show the historical path of these two men as wells as the methods in which they were compensated for their participation in the war. As a result of the valor displayed in fighting for American independence, a tradition of military and public service has been a characteristic of the Amidon family, which continues to this day.

THE IMPACT OF INCREASING POLITICAL POLARIZATION ON POLITICAL DISCOURSE

Aaron J. Amidon

Faculty Sponsor: Tricia Rizza, Communications and Humanities

This paper exhibits how increased divisions in political ideologies has resulted in a reduction of political discourse in recent years. The act of conforming to a specific political identity has led to a growing behavior of social predetermination of an individual’s ideals based on party affiliation. Factors including group think, political identity, self-serving bias and the withdrawal of political expression are analyzed. The completion of this analysis, in addition to the correlation formed between growing political polarization and the decline of political discourse, further illustrates the repercussions of a divided America.

RANGOLI ART – TRADITIONAL FLOOR DRAWING IN INDIA

Mousumi Banerjee

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

This art project paper covers the types and techniques of Rangoli art forms, the traditional floor decorative drawing for house beautification. Rangoli art is closely associated with Hindu religious festivals. This floor art of ancient to modern India has slightly different forms in different areas of India. Popularly, natural substances, like grains, sand, flower petals etc., are used to create this art. This paper includes history of origin, different forms, patterns, materials and significance of Rangoli art.

VIOLENT VIDEO GAMES AND AGGRESSION

Alesha Benjamin

Faculty Sponsor: Dr. Renee Gordon, STEM Center

This project examines the correlation between real-world aggression and video games. Video game purchases within the United States are far less than that of other leading nations, when compared globally. Previous studies suggest that unhealthy amounts of time of violent video game usage potentially affect emotional aggression. Emotional aggression influenced by video games usage will be observed, whether mildly or extremely aggressive. This study will review self-reported methods and duration of observed free-play. The analysis will provide statistical data regarding the number of violent crimes and cross-reference violent video game usage by the hour, while comparing the U.S. to other influential countries.

GENEALOGY RESEARCH

Annika Berentsen

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

The internet is a wealth of information from a variety of sources which can be used to piece together an individual's life through a series of documented events such as birth announcements, wedding announcements, the census, city directories, military records, school records, newspaper accounts of social activities, and death certificates. Photos are also available online from personal genealogists, newspaper articles, school yearbooks, and cemetery records. By adding research on current events from the period you are researching, it is an interesting way to view a period in time. While researching Herbert Hooper, I found that research can be a fun and exciting way to look at history.

ALTERNATIVE BIOMASS

Chantal Brown

Faculty Sponsor: Dr. Renee Gordon, STEM Center

This paper examines the use of oil seed crops as an alternative source of renewable biomass for liquid fuel and energy generation. Oil seed crops are the largest group of renewable biomass, and their oils have been considered as an alternative for emergency fuels and diesel engines. They have a high heat content, and their properties are comparable to diesel fuel. The usage of plant-based fuels to replace diesel is not possible because of its high viscosity. Also, the oil seed crops are limited in the use of modern engines. A solution to this is to transesterify these oils with a simple alcohol such as ethanol. Using plant-based biodiesel would decrease the cost of producing fuel by replacing the usage of diesel, which comes from crude oil. It is environmentally friendly because of the low emission of carbon dioxide into the air and is less flammable. It could also be mixed with crude oil to reduce its harmful effect on the environment.

TEACHING METHODS FOR A PRODUCTIVE PRIMARY CLASS

Danielle Brown

Faculty Sponsor: Sara Marchessault, Behavioral, Social Science and Education

This paper will examine the teaching methods employed in primary classrooms, and the degree to which these methods enhance the educational process or enable the students to learn more efficiently. In an effort to compare the levels of success for each of these techniques, this paper will also outline the many metrics that are used to determine how success is measured. This research will be supported by primary classroom site visits and observations at a variety of grade levels and locations. These observations will give insights into the strengths and weaknesses of each type of teaching concept used, and how responses can vary in a diverse classroom setting.

MASTER COPY OF CARAVAGGIO'S SAINT PETER

Sean Cain

Faculty Sponsor: Ljiliana Obradovic-Edmiston, Communications and Humanities

I am submitting my master copy of the Painting by Caravaggio painted titled "the Crucifixion of Saint Peter." I was inspired to do this piece both for its dramatic effect and historical significance. I was struck by the idea that a man could be so convinced that he saw Jesus of Nazareth rise from the dead that he would endure a violent death rather than recant his proclamation. The piece took approximately fifty hours to complete.

HEDDA'S NEED OF FEMINISM

Maria Castorena

Faculty Sponsor: Dr. Donya Samara, Communications and Humanities

This essay explores the relevance of current views of feminism to the nineteenth-century play *Hedda Gabler*. *Hedda Gabler* by Henrik Ibsen was first performed in January 1891, in Norway, and revolves around a newlywed woman who decides to marry an aspiring scholar because it was time for her to wed. This essay analyzes aspects where feminism that could have been of help in the lives of certain characters. Here, I will look at struggles such as motherhood, marriage, purpose, femininity and masculinity, all of which create conflicts and tragedy in the play. Accordingly, I will look at the history of women's rights and surge of feminism in order to examine how feminism might have helped certain characters in the play. In this presentation, I will discuss *Hedda Gabler* and its continuous relevance in 2019, as these issues still retain a place in the lives of women despite their change of circumstances.

UNSUNG HEROES OF RESEARCH

Lauren Kelley Cocke

Faculty Sponsor: Nicolette Costantino, Communications and Humanities

This paper is a profile on librarians and the amount of work they do in their workplace. The paper also examines how librarians not only do work for their school, but they also support their communities through helping people with scientific research. The main reason behind the paper, however, is to discuss how, despite all the work librarians do for their schools and communities, they do not get enough recognition for it. This is due in part to the stereotype that has been given to librarians over the years, that they just check out and shelve books all day. My goal in this paper is to shed light on what librarians really do so that they get the recognition they deserve.

WILL E-BOOKS DESTROY THE FUTURE?

Lauren Kelley Cocke

Faculty Sponsor: Nicolette Costantino, Communications and Humanities

This Research paper is an analysis on an article called “E-Books Will Widen the Digital Divide” by Christopher Mims, where he discusses why eBooks, which are books that are digitized to be read on a device called an e-Reader, are bad for people to get behind. The paper analyzes the points the author brings up and why they make a compelling argument against eBooks through the three rhetorical appeals, logos, pathos, and ethos. His use of emotional appeal through bringing up feelings of nostalgia, his logical appeal by bringing up the cost of eBooks and e-Readers, and his use of ethical appeal by examples of famous people in history like Abraham Lincoln and Bob Dylan are the ways Mims is convincing in his Argument against eBooks.

ARTIFICIAL INTELLIGENCE IN THE HEALTHCARE INDUSTRY

Migdalia Cordova

Faculty Sponsor: Rachel Laudadio, Science and Mathematics

The goal of this project is to explain how biotech companies, organizations, healthcare providers around the world are collaborating by developing pathways to include AI to innovate such industry. In this specific technology versus man industry perspective, it is important to understand that AI won’t replace human consciousness completely meaning that human input will still be required for this technology to move forward. This healthcare and cloud computing initiative will work side by side with major experts in the healthcare industry and programming. I have chosen to address the adaptive biotechnology such as transferring data and workloads to the cloud such as Azure since I will address how AI is aiding the healthcare industry by analyzing the info given such as patient data example: symptoms, patient history, tests results and other important factors that are fully disclosed to the public. This new modern technology has made sure to also comply with privacy policies such as HIPPA. I will focus on developing a claim of how AI and cloud computing evolves around these projects developed by Microsoft.

THE REMOVAL: HOW THEY LOST THEIR HOMES

Ansley Corson

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science, and Education

I have chosen to focus on the relocation and removal of two families in North Carolina. I hope to answer the question of how these families were chosen for relocation and what impacted those decisions. This topic was a result of my interest that developed in my American History class in the discussion of the New Deal. It took place in the mid 1900's, during Franklin D. Roosevelt's presidency, lasting until our entry into WWII. This can be addressed in a research topic, for it correlates with my previously stated question. I viewed casefiles adorned with information and photographs of families experiencing removal and relocation. I intend to use these casefiles from Ancestry.com to further explore my research topic. Because there were hundreds facing relocation, I assume there was specific reasoning for the occurrence and that individual's socio-economic status stood as a factor for the severity of their relocation.

CUMMINGS-PYLES/MYLES FAMILY TREE

Marcayla Cummings

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science, and Education

I recently did a case report on a woman named "Agnes Marie Brown", I found out a lot about a woman whom I have never met before just by using Ancestry. For this research symposium I am going to do research on my own family tree. I do not know much about my family history at all, being that I am from a small town I am related to quite a lot of people there. That alone tells me that there must be a lot of history dealing with my family that goes back a few generations. I am excited to see what I am going to find out about my blood line. I plan on using Ancestry again for this research symposium because I found it to be highly informative. For my presentation style I plan on using the "PowerPoint Presentation".

ON A WALK

Keara Dana

Faculty Sponsor: Lilijana Obradovic-Edmiston, Communications and Humanities

For this piece I wanted to use representational figures to show a whimsical concept. I wanted my piece to look as realistic as possible while subverting the viewers' expectations by placing an unexpected element in an otherwise ordinary scene. I drew an illustrative scene of a person walking their pet but instead of a dog like one would expect to see, a bat tugs at the end of the person's leash. I took reference photographs of my own when planning my illustration, and ultimately decided to use a collage of stock photographs I found online. I printed different images, cut them out, and collaged them together and scanned my final collage. I then printed the final collage and traced the image onto my illustration board by layering graphite onto the back. I used graphite pencils of varying softness to achieve the values I wanted.

THE COMMUNIST CONTROL ACT OF 1954

Brandyn M. Davis

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

This paper will analyze the Communist Control Act of 1954. The Communist Control Act was passed by Congress during the first decade of the Cold War under the Eisenhower administration. This paper will address the ongoing threat of the Cold War and the rise of communism during the years following World War II. Additionally, this analysis will document the two dominant ideologies of capitalism and communism that separated the United States and the U.S.S.R during the Cold War. This paper will detail the number of communist spies in the United States Government and various organizations within the U.S. In addition, this analysis will document U.S. propaganda that would manipulate the views of U.S citizens as well as citizens of foreign nations.

BUILDING LEADERS THROUGH SERVICE LEARNING

Jonathon Davis, Jeremiah Fries, and Stevan Rivero

Faculty Sponsor: Melissa Scalzi, Behavioral, Social Science and Education

Our poster presentation aims to explore ways in which we can enhance leadership skills through civic engagement and community outreach. We will evaluate the leadership process and ways to refine and develop individual leadership skills, strengths and philosophies. Our presentation will include research about FL Cares, Inc., the organization we are partnering with to benefit disabled seniors within our community. The poster will also include first-hand testimonies from the founder of FL Cares and the seniors whom our project is benefiting. Our poster will also explore research about leadership theories.

GUN VIOLENCE AND CONTEMPORARY ART

Delana Duca

Faculty Sponsor: Lindsey Smitherman-Brown, Communications and Humanities

Gun control has become a very frequent topic amidst the continuous gun violence and massacres that plague the United States. There have been marches, calls to Congress, organizations made, speeches, articles, yet it seems the progress is stagnant. This presentation dives into how contemporary art may be a new and stronger tool in bringing purposeful attention and action to gun control. Several artists are speaking out on the need for gun control. Through the use of sculpture, music, and other art forms, artists are calling for attention to gun control. The intense and purposeful art allows viewers to get a deeper insight into the effects of gun violence. The question we must ask is what will open our eyes and force us into action? Will contemporary art be the door that moves people enough to stand up and make changes to the current gun epidemic we face?

HAITI AND ITS IMPORTANCE TO THE FRANCOPHONE WORLD

Jenny Duval

Faculty Sponsor: Melissa Scalzi, Behavioral, Social Science and Education

This poster presentation aims to highlight the importance of Haiti and the francophone culture. Research will include Haiti and its culture and also how Haiti itself became a francophone country. I intend to conduct research online, peer reviews and scholarly journals. I also intend to immerse first hand testimonials from native of Haiti. With this presentation, I anticipate that it will enlighten the audience more of the francophone colonization history and its independence. Being a person with roots of the Haitian culture I also aim to gain knowledge of how Haiti itself became a francophone country.

THE ROOTS OF JASMINE

Sierra Rose Eklund

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

This presentation exemplifies the process of using research to find my biological family. The evidence retrieved helped me connect roots to an unknown persona of myself. By embodying the ability to analyze documents, link time events, and deciphering an unspoken story, I was able to apply this to my two other adoptive brothers and find their birth families as well. Through this presentation I'll take you through my research process and emotional outcome.

LEAF-INSPIRED JEWELRY

Kaitlin Evans

Faculty Sponsor: Julie Baroody, Communications and Humanities

I am inspired by nature and all of the regular and irregular forms that make up our natural world. I am fascinated by the order among chaos that is constantly revealed by looking closely at the organic forms that surround us. I started this particular piece with the idea of a simple leaf in sterling silver and tried, through an iterative process to achieve a believable “natural” looking form. I wanted to have an interplay of positive and negative space within the form and incorporated holes – or open places within the form to add interest and engagement. When creating the bale, I wanted to make sure that form followed function, so I tapered the bale wire and incorporated it into the design of the actual leaf by making it the center vein. My goal with the piece is to create a tangible reminder of the beauty of nature.

SELF PORTRAIT – COLOR VALUE

Josiah Fontenot

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

This painting is the result of research and practice of the value of color. The subject of the painting is a self-portrait of Josiah Fontenot. The image selected for reference has deep shadows and bright highlights: perfect for the study of value. Ranging from light to dark, the primary hue, red, along with grayscale is used to contrast and highlight key features of the art piece. A brightly tinted yellow covers the background, drawing the eye of the observer to the richly saturated red that governs the face. With the focus on lighting and value, abstract shapes of varying saturations work together to increase overall realism and depth.

AVIATRIX, ACTRESS, AND WRITER

Sarah Joyce Forner

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

This paper focuses on Evelyn Rosencrantz, also known by her real name, Patricia Reid. Evelyn always had an air of mystery around her as she always had an alias, she was a consistent felon, and her self-proclaimed career was that she was an aviatrix. The intentions of analyzing her life are to: look at her upbringing and connect why she led her life of consistent crime, investigate her familial ties and how they influenced her life, and find the true story behind the cult she joined in Holy City, California. This cult that she joined was the driving force behind her planned flight from California to Rome, Italy; and it also resulted in her turbulent relationship with cult leader “King” Edward Riker.

EVA RABLEN, HOUSEWIFE OR MURDERER?

Sarah Joyce Forner

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

This paper focuses on the life of Eva Rablen, a mail-order-bride from the early 20th century who was convicted of murdering her husband, Carroll Rablen. In more detail, the key aspects that are being analyzed through research are: the circumstances that led Eva to move from Texas to California to marry Carroll Rablen, their life in their year and a half marriage, Carroll’s life prior to their marriage, the overwhelming, nationwide press coverage and its effects, the theories on if Eva truly killed her husband, and what her life was like following her sentencing.

THE SPRAIN ARRESTOR

William Gilmore and Shanavia Jacobs

Faculty Sponsor: Dr. Renee Gordon, STEM Center

The Sprain Arrestor is an orthotic wedge, where with proper placement inside the shoe, offers the user an inexpensive alternative to bulky bracing or elastic, minimally supportive bandages and wrappings. Traditional wrappings can restrict circulation and range of motion. The research study focuses on players of the TCC Basketball Team who suffer from chronic ankle injuries and complications. These players compared traditional injury wrapping versus the Sprain Arrestor as a prevention tool against ankle injury due to inversion. This research study attempts to show direct benefits of the Sprain Arrestor which include increased range of motion, shorter preventive prep times, an increase in player performance and confidence, as well as a decrease in injuries during high performance athletic activities.

THE SYSTEM D ECONOMY

Samuel Goetz

Faculty Sponsor: John Schultz, Communications and Humanities

This paper examines the mechanics, macro-economic impact and societal implications of The System D Economy. The System D Economy very simply put, accounts for all of the trade that occurs in an economy without government licensing, taxation or regulation. This massive economic sector accounts for roughly ten trillion dollars of commerce every year. Operating under System D has allowed many citizens of developing nations to maintain stable livelihoods. The analysis demonstrates that the unregulated nature of System D is both its beauty and it’s a detriment. The analysis further highlights the problems that arise when governments enforce stringent regulations and corporations unethically exploit the workers of this sector to cut costs. The research presented ultimately concludes that cooperation and comprise between policymakers and the informal sector are necessary variables to ensuring a sustainable global economy and most importantly; achievable ends to which we must aspire.

RESEARCH ON EDWIN C. (BILLY) BURKHALTER

Galen Eli Goram

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science, and Education

In this data-based research I hope to find something extravagant about what would seem to be an ordinary man. I start with the Texas Death Certificate of a man named Edwin Burkhalter. Since Mr. Burkhalter is from the early 20th century, I hope to find notes that ascertain or conclude that Burkhalter's great-grandparents fought on opposite sides of the Civil War and that he was involuntarily placed in a mental hospital during his lifespan.

FROM DARKNESS TO LIGHT: A CALL FOR CULTURAL CHANGE

Jazmen Green

Faculty Sponsor: Sara Marchessault, Behavioral, Social Science and Education

"From Darkness to Light: A Call for Cultural Change" is an argumentative essay that not only provides a distinctive look on black culture, but also a critical analysis of messages within hip-hop music videos and lyrics and their effects on the black community as a whole. This essay thoroughly explains the potentially damaging state of hip-hop today and stresses the importance of positive messaging and imagery while utilizing support from credible sources. This research essay emphasizes the pressing issues in hip-hop and provides a solution all while being relatable and relevant to audiences of all backgrounds.

HOW BLOGGING HAS CHANGED OVER TIME

Jazmine Nicole Hawkins

Faculty Sponsor: Daniel Beugnet, Communications and Humanities

In my essay "How Blogging Has Changed Over Time," I discuss whether or not blogging is a dying art. This paper gives the history of how blogging came to be all the way up to the point of how it is surviving in the world of social media platforms such as *Twitter* and *Instagram*. This essay dives into how blogs are thriving and not dying, contrary to popular belief. This essay further discusses how blogs are just as prominent in today's society as other social media platforms since blogs technically are a type of social media based on research by blogging experts.

LIGHT AND SHADOW

Isabelle Hayslip

Faculty Sponsor: Lilijana Obradovic-Edmiston, Communications and Humanities

This is a still life from the ART 1300 Drawing 1 class. The purpose of this assignment was to work on perspective, value, and texture. In finding the composition for this drawing, I took several pictures of the still life to find the best angle, and made several thumb sketches to help me decide on the placement of objects in the picture. One of the pictures I had taken was a close-up image in which the focus was not on the individual objects, but on the shapes of the objects and their shadows. This perspective of the still life magnified the effects of light and texture, which I found interesting because this was a perspective one would not normally encounter.

YOU HOPE FOR SOMETHING HOLY, SOMETHING BRIGHT TO HOLD ONTO

Xylia Jackson

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

Done in graphite pencil on illustration board, the drawing “I. You hope for something holy, something bright to hold onto” was an illustration project undertaken with the guidelines that the drawing must be photorealistic referencing a collage made for the project. This illustration served as a study into composition and value, though one wing was left unfinished. An overall theme of religion is constant throughout the work with the focus on the angel statue looking towards the heavens with ram horns representing permanence/death and the unholy irony of the angel. The crystals further the theme of spirituality. Although these objects serve to last longer than we do, they will eventually fade, so in hopes to “live” forever, they hope for something holy, something to hold onto.

DIVERSITY IN ENTERTAINMENT

Mia Lea Kahn

Faculty Sponsor: Dr. Donya Samara, Communications and Humanities

One thing that we can always rely on to disappoint is Hollywood media and it's use of "diverse representation" in the entertainment industry. In 2015, a study came out stating that members of the Academy of Motion Picture Arts and Sciences were 94 percent white, and 76 percent male, which led to the social media campaign #OscarsSoWhite. When the entertainment industry is run by only white males, we lose the opportunity to represent diversity, we lose the chance to see characters that are people of color, or characters that suffer from mental illness, or even a simple Jewish female on screen is out of reach. When a cartoon like "Loud House" has a black character who was adopted by two men on the show, that means somewhere in the world there's a black kid with two dads that feels normal, it gives the child a chance to relate. But when every character on screen is white and straight, and male, those who don't fit in that category lose the chance to see themselves, and that's not fair.

THE WORLD BOOK OF TIPPINS

Sierra Knowles

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science, and Education

For this presentation, I will be discussing my findings from *ancestry.com* as well as *newspapers.com*. The research I am concentrating on consists within my family. Likewise, my mother lent me a book on the history of the Tippin family, her father's side. Additionally, I will be fact checking this book and confirming the authenticity of its content. Moreover, this book is titled, *The World Book of Tippins*, and embraces the history of how the Tippins immigrated to North America, how the Tippin surname was formed, what the name means, and the Tippin registry. Ultimately, I will use *ancestry.com* and *newspapers.com* to confirm the accuracy of the information within this book.

GEORGE WILSON AND MABLE FORTNER RESEARCH CASEFILE

Tye Leishman

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

This paper examines a man named George Wilson and his wife, Mable Fortner. I started with their divorce record from the Virginia Divorce Records in 1962 and traced their family all the way back to the mid-1700's. This paper isn't researching something that has already been done but to make your own research, research that has never been done before. I kept digging using ancestry.com and found that one of Marble Fortner's great grandfathers was a confederate soldier who fought over forty battles during the 1860's during the civil war. I was the first to conduct this research and found other interesting things about George Wilson and Mable Fortner's family history. I was able to write four pages with only being given a Virginia divorce record to start with.

ABSTRACT EXPRESSIONISM IN ART HISTORY

Catherine Lessard

Faculty Sponsor: Jen Robinson, Communications and Humanities

This paper will examine the abstract expressionism period of art history and how it influenced new emerging artists of that period and even artists today. It will focus on two of the most well-known abstract expressionists Jackson Pollock and Mark Rothko. While they both fall under the abstract expressionism period they have very polarizing styles and techniques displayed within their works. The analysis will cover what techniques were used to create the piece, the materials, and the lack of subject in the pieces that were still given one by art historians at a later time. The analysis will also see how the work of these two artists changed over time taking them from more realistic work into abstract work, and then into what they are most know for abstract expressionism.

DIABETES IN YOUTH AND MIDDLE-AGED ADULTS

Kisha Lucate

Faculty sponsor: Dr. Renee Gordon, STEM Center

Many Americans today have diabetes or at least know someone with diabetes. It has been a common issue on the prevention of diabetes and the cause of this disease. Studies show that Type 2 diabetes is becoming more common in youth between ages 10 and 19, and also middle-aged adults ages 45 and 64. This research will discuss the most common causes of diabetes and focus on the two age groups: youth and middle-aged adults. This study hopes to find the root cause of the problem and methods of prevention.

THE FRIENDSHIP BENCH: AN EXPANDING INITIATIVE

Esmeralda Lucio

Faculty Sponsor: John Schultz, Communications and Humanities

This paper analyzes the Friendship Bench, an initiative that trains older women to help people suffering from depression in Zimbabwe. An analysis of how the program works and he therapy sessions are examined. In addition, the program's goals are dissected. One of the main goals of the Friendship Bench is to put a spotlight on mental health in Africa. This paper also addresses the implications of the program. The program's expansion into the western countries such as the United States and Canada, and the danger of inconsistent training for the workers and clients. Articles and interviews were researched to formulate the answers and as a result can conclude that the Friendship Bench will continue to expand further across the United States and ensures treatment for those who cannot afford it.

THE NEW WATER FILTER: ATMOSPHERIC WATER GENERATOR

Sidney Myles Lyght

Faculty Sponsor: John Schultz, Communications and Humanities

Listed as one of the Sustainable Development Goals by the United Nations, the demand for a reliable source of clean drinking water is becoming more visible. Some of the members within the international community don't have the same access to drinking water either by limited supply, or contamination of said water supply. Thankfully, a recent piece of technology has been developed that may become a viable solution for the global community as a whole. Atmospheric Water Generators are what the world needs to survive and have the perfect opportunity of being introduced. The presentation of this project will explain and examine the functionality of them and its foreseeable application within the world. Atmospheric Water Generators are another key example of technology being developed for the advancement of humanity and assisting those in desperate need.

HACK THE BRAIN OF THE HACKER

Sidney Myles Lyght

Faculty Sponsor: Dr. Renee Gordon, STEM Center

The term hacker has been given a negative connotation due to the fact that individuals have utilized expertise in Computer Technology for nefarious purposes, whether it be financial gain or causing chaos in the domestic or international space. With cyber security being pushed forward as the major focus in the technology industry for both civilian and government use, it presents the next battlefield in both safety and security on the global scale. Being deemed a hacker has different meanings and the general public does not understand the methodology of a hacker. This research project analyzes the mindset of a hacker and examines how script and code are developed and used for either the betterment of society, or the destruction of public safety as a whole.

THE CALLIOPE EFFECT

Autumn M. Maxwell

Faculty Sponsor: Vijay Subramanian, Science and Mathematics

This performance is an exploration of the usage of musical elements such as genre, instrumentation, lyricism, and harmony to convey the songwriter's message. The examples provided are original compositions that discuss topics such as depression in young adults, the dangers of American consumerism, growing personal self-esteem, and the simple joys of being in love. Both the lyrics and themes will be discussed, as they include metaphor, references to literature, and melodic choices to evoke tone and emotion.

METHODS OF AMBIENT MASS SPECTROMETRY IN FORENSICS

Sagan May

Faculty Sponsor, Dr. Renee Gordon, STEM Center

In this poster, the benefits of advancements in forensic technologies are examined. It is important in the collection and analysis of forensic evidence to be able to test the evidence in question with as little damage to the original evidence as possible. The less damage done to the evidence, the better to prove that your results are in fact from said evidence and the results can be duplicated without having to get a new sample. With new technological advancement, there now comes such ways to analyze evidence without the destruction of the sample taken. For example, Ambient Mass Spectrometry can give a direct analysis of a forensic sample without disturbing the original evidence. Methods of Ambient Mass Spectrometry include desorption electrospray ionization, plasma assisted desorption ionization, and extractive electrospray ionization. These methods will be analyzed and ranked for best technique.

MEASURES FOR INCREASING DRIVER SAFETY AMONG OLDER ADULTS: IMPLICATIONS FOR FLORDIA'S AGING POPULATION

Averie McDaniel

Faculty Sponsor: Daniel Beugnet, Communications and Humanities

This research paper explores why elderly drivers should face stronger restrictions when renewing their license in the state of Florida. The paper explains how deteriorating cognitive and motor skills correlate and how they both have an impact on elderly driving. The threat that immobility can have on one's health, and the lack of alternative transportation is addressed as well. This paper gives examples of and explains multiple tests that could be implemented in the license renewal process. Also, some action that is being taken internationally to restrict elderly drivers and the results of these precautions is discussed in the paper.

VERMEER STUDY OVER A JAPANESE KIMONO PATTERN

Yasuko Miyamoto

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

When I first saw the "Girl with a pearl earring," I felt her clothes were exotic. They were probably not original from the artist Vermeer's country Holland. Therefore, I thought if I compare Eastern (Japan) and Western culture, it would make chemistry. Then I arranged Japanese traditional patterns from a Kimono that I created through an original design, and I also combined honey comb that is popularly found in Western and Japanese cultures. The girl looks innocent, so I painted a Japanese cluster of flowers within some tiles. I also used empty space because too many flowers would provide tranquility rather than chaos in the background. The combination of the color of background and honey comb tiles provide a harmoniousness background.

VENTRICULAR HEART FAILURE AND MAPPING OF THE HEART

Daniela Orellana

Faculty Sponsor: Dr. Renee Gordon, STEM Center

Ventricular heart failure is when the heart beats are faster than the average rate (60-100 beats per minute). When the beats increase, the average rate could cause a tachycardia. Every age is at risk of a ventricular heart failure but the most affected group are the elderly. To decrease the rate of heart failure, a non-contact Electromechanical optical mapping system is used to provide 3-D imagery to investigate cardiac electrophysiology in hearts. Before this system existed, the implantable defibrillator therapy was used in patients, but this technique has been reduced by 50%. The mapping system has not only helped to identify a future failure but to reduce the failure that is already in the heart. Usually the heart is mapped by colors and sections allowing doctors to see the affected areas. The mapping system has transformed the health-care industry allowing doctors to diagnose and prevent heart conditions earlier and increasing the life span of patients.

BEYOND THE BLUE SPHERE

Antwain Parker

Faculty Sponsor: Dr. Everett Montgomery, Business, Industry and Technology

This paper examines the economic feasibility of colonizing Mars. The potential colonization of Mars will be a significant piece of human history. This paper maps out the financial and economic resources that are needed to make the voyage a possibility. In addition, the research tackles the potential challenges that will be faced socially and environmentally. The research examines four basic questions:

1. How much will it cost to get there?
2. Who will the money come from?
3. What will we need to survive there?
4. What are the economic advantages of being there?

The research has shown that because of the potential threats in our solar system, being a multiplanetary species is not only advantages but a key part in our survival. In addition, scarcity of resources is significantly important.

THE ISLAND NATION OF VANUATU

Jack Peddie

Faculty Sponsor: Melissa Scalzi, Behavioral, Social Science and Education

This graphic was developed using a combination of map-making software Wonderdraft and photo-manipulation software Photoshop. Originally created as part of a cultural experience project for Elementary French I, this graphic seeks to introduce the audience to Vanuatu, a nation of islands in the South Pacific Ocean. The map portion of this graphic accurately illustrates the geography of the francophone archipelago, complete with political layout and major population hubs. Additionally, the text overlay presents a glimpse into the history, culture, government, and socioeconomics of the country.

MASK-INSPIRED JEWELRY

Shelvin Pilot

Faculty Sponsor: Julie Baroody, Communications and Humanities

This particular body of work is inspired by masks from a variety of world cultures, including African and Tahitian. I begin my research by investigating different shapes and textures for facial features. I work with sterling silver and fabricate my pieces entirely by hand. My goal is to reduce the human face to its most archetypal elements. I enjoy experimenting with texture and scale to achieve a rich, nuanced and varied surface. They are intended to go beyond gender in both the depiction and in the wearability. I hope to convey the multi-cultural heritage of my inspirations in these modern pieces.

COLOR VALUE SELF-PORTRAIT

Amora Randolph

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

This artwork is a painted self-portrait that follows guidelines of having separated values (colors mixed with increasing levels of white or black) of colors to reflect shapes, shadows and highlights of the subject of the artwork. The painting is primarily photorealistic and follows themes of the realism movement but uses arbitrary colors. Composition, positive space and negative space, and balance of color are all factors taken into consideration in this painting. The painting was started by taking or selecting a photo of oneself, transferring line art to the final canvas and then carefully painting each separated color value to compose a self-portrait, using the photo as a guide. To ensure clean and precise paint application, tape was used to separate areas of differing values. The end-result for the painting was successful.

CURRENT TOPIC STIPPLE ART

Amora Randolph

Faculty Sponsor: Ljiljana Obradovic-Edmiston, Communications and Humanities

The artwork is a stipple illustration that reflects a current event or current topic in an original composition. This artwork reflects recent weather and climate change in the U.S., it depicts Earth with a human body and two thermometers (one frozen in ice and the other melting while in flames) sticking out in two different places (the northeastern region and the southwestern region of the U.S.), to reference the early 2019 polar vortex and the 2017 Arizona heat wave.

EFFECTIVE MOTIVATION STRATEGIES USED BY TEACHERS

Aedan Reed

Faculty Sponsor: Sara Marchessault, Behavioral, Social Science and Education

This submission will explore strategies used by elementary, middle, and high school teachers to motivate students in their present learning environments, and setting them up for future success. In elementary school motivation sets a precedent for learning in the future and can encourage good/positive behavior for the rest of a students' academic pursuits. In middle and high school motivation can determine how a student works, which can affect overall work performance, what they do, and how they act in the years following a typical K-12 learning experience. This poster will display the methods teachers find to be the most effective in their classrooms, and why they are so important for molding a successful student and person.

VACCINATION-INDUCED LONGEVITY AND SAFETY

Joshua Reynolds

Faculty Sponsor: Dr. Renee Gordon, STEM Center

Vaccination works to establish preemptive barriers to disease. Vaccine effectiveness and safety are clear benefits to the fundamental health aspects of modern society. By ensuring vaccination at an early age and through critical developmental stages, patients are able to garner immunity to disease and increase their probability of healthy lives. Parental refusal of childhood vaccination is a growing philosophy in the United States. The anti-vaccine stance supports that vaccines contain harmful ingredients and chemicals, cause serious side effects, and that the diseases associated are no longer a modern-day threat. Through comparative analysis, immunization benefits were examined on the basis of comparing those who have been immunized to non-immunized individuals. Additionally, the associated risks and safety regarding the choice to vaccinate or not vaccinate were evaluated. Research presented as a poster.

SHOULD BACTERIA BE GENETICALLY ENGINEERED TO TREAT DISEASES?

Alexandra Rosario

Faculty Sponsor: Dr. Renee Gordon, STEM Center

This research paper discusses the advantages, disadvantages, and different ways bacteria can be engineered to eliminate a variety of diseases and conditions. Genetic engineering is defined as the alteration and manipulation of an organism's DNA to obtain the desired characteristics, also known as the phenotype. To come to a conclusion on this topic, I researched the topic extensively, by reading multiple articles, scientific findings, and other research papers. The findings helped me determine that the advantages outweigh the disadvantages, due to the fact that it is possible to modify a strain of the bacterium E.Coli to treat metabolic disorders related to ammonia accumulation, it has also been modified to produce a compound called NAPE, which suppresses appetite, therefore, helping people who are obese lose weight. In addition, scientists are working on finding a way to alter the E.Coli bacterium to manufacture the antibiotic erythromycin A.

POWER NEEDS NO GENDER

Katherine Rogers

Faculty Sponsor: Tom Waller, Behavioral, Social Science and Education

Gender equality and women's right have come a long way, but there is most definitely room for improvement of gender equality. In the past couple of weeks, women have been making political and social leaps, shattering the glass ceiling. In this paper, I will be discussing how feminism, gender roles, and patriarchy relate to women advancing in politics. Women are pushing to expel gender typing in politics and let their voices be heard.

THE ART OF ACCULTURATION

Robert Sanderson

Faculty Sponsor: Vijay Subramanian, Science and Mathematics

This presentation will cover the unique and complicated art of cultural assimilation, or acculturation. Acculturation is the shedding of one's mother culture and the subsequent adaptation to new or unfamiliar cultures. It is a useful tool in traveling and/or working abroad. Whether one is seeking to get the most out of their vacationing in other countries, or they are on a business trip, this important art is vital in preventing potential cultural conflicts. Likewise, it is helpful in creating more dialogue between people from different cultures, eliminating the same conflicts. Most importantly, though, it can help create more meaningful conversations between the diverse cultures present in the United States.

CHINESE VS. WESTERN MEDICINE IN WOMEN'S HEALTH

Melissa Sims

Faculty Sponsor: Shakonda Diggs, Transitional Studies

Have you ever considered going to an acupuncturist instead of your doctor to get over a cold? If treated early, acupuncture can cure you of the symptoms found in the common cold, as well as other many other physical ailments. This is found to be a viable and sometimes preferred treatment option for more and more people in the US every year, and women especially should pay attention. When women are faced with a major health concern, Chinese medicine is better for their bodies in the long run and should be considered an alternative treatment option. Such health concerns for women include, but are not limited to the following: depression, breast cancer, heart disease, and osteoporosis.

JAMES ARCHIE SCOTT STILL REMAINS

Erica Sirmans

Faculty Sponsor: Dr. Melissa Soldani-Lemon, Behavioral, Social Science and Education

I started my research with only James Archie death certificate. He was a white male born December 21, 1902 in Brazos, Texas. He died on July 27, 1970 in Brazos, Texas at the age of 67 in a two-vehicle accident 5 miles west of Bryan city limits on highway number 21 west. My research will use data to piece together Mr. Archie's family history, life and death, including what caused this car accident and the impact his death might have had on his descendants. Was he even paying attention to the road? His death certificate says it was an accident, but what if it wasn't? Well let's find out.

HOLOCAUST NEWSPAPER DESIGN

Brenna Smith

Faculty Sponsor: Teresa Paliwoda, Communications and Humanities

This poster informs students and faculty, through a newspaper design, on campus about journalist and photographers during the Holocaust. The design of this project is to replicate an old newspaper. The piece discusses important figures that made a significant impact during this time, in the specific topic. There are three different versions, one version for each person, Wilhelm Brasse, Dorothy Thompson and Edgar Answel Mowrer. This project will hopefully provoke more interest and curiosity for the finer details during this event.

THE MILLENNIUM TOWER

Kaylan Stapleton

Faculty Sponsor: Dr. Renee Gordon, STEM Center

The Millennium Tower is the tallest residential building and the sixth tallest building in San Francisco, constructed in 2005. The tower is 645ft in height, 58 floors and is mixed-used but primarily built for residential use. Gary Handel is the architect. Unfortunately, developers announced that it was sinking and tilting in 2015 but became noticeable to the public a year later. An examination was done and results stated that in 2016, the building had sunk 16 inches below ground level, tilted two inches at the base and about six inches tilt at the top. Cracks were also discovered in the basement and across pavements of the building. The Millennium Partners are seeking solutions to this problem and it may cost roughly around 200 million USD in repairs. They have put together the Sage engineering team to complete a study on reasons why this tower has been so badly affected.

THE WARP DRIVE: HYPER FAST TRAVEL WITHIN GENERAL RELATIVITY

Nicolas Timmons

Faculty Sponsor: Rex Albert, Science and Mathematics

This paper describes in detail a method of traversing space at an arbitrarily large speed while staying within the infrastructure of general relativity. This could be accomplished through the local expansion of space-time behind the spaceship, and a local contraction in front of it. Once this contraction and expansion of space-time is achieved, space travel faster than the speed of light is plausible. However, in order to create this distortion of space-time, an extremely large amount of ‘exotic matter’ will be required.

NATIONAL MEMORIAL FOR PEACE AND JUSTICE

Tourean Isaac Nyron Underwood

Faculty Sponsor: John Schultz, Communications and Humanities

This paper showcases the National Memorial for Peace and Justice located in Montgomery, Alabama. The National Museum for Peace and Justice highlights numerous exhibits which represent historical violence in black America. This paper contains the reasoning behind the creation of such a drastic yet necessary landmark. The paper also provides a comprehensive comparison between the memorial and a series of advertisements in the 1980's which used shock tactics to create a lasting impact in the viewers' mind. Overall, the heart of the paper draws fascinating implications which state whether the memorial is helpful or harmful toward society.

FLOWER OF LIFE

Emma Wharton

Faculty Sponsor: Julie Baroody, Communications and Humanities

The process of creating this piece directly reflects the process of natural creation, which is also what the piece signifies. I started with seven pieces of sterling silver wire, cut to equal length. I formed each piece into a circle (all seven of equal size). I think of these circles of being their own single-celled organism. I then formed pairs out of all the circles except the center one, turning them into multi-cellular creatures. Not until every piece is layered, one on top of the other, does the whole image come into sight. A shape, that once initially formed, has the ability to continue on forever.

ANIMAL TESTING AND ANIMAL RIGHTS

Paige E. Williams

Faculty Sponsor: Coleman Mackie, Science and Mathematics

This poster will examine the various aspects concerning animal testing and their concerning ambiguous rights. A report from The European Commission showed that in 2011, around 11.5 million animals were used in experiments across Europe. Animal testing, although very prominent throughout the cosmetic and medical field, sparks interest among many animal rights activists that have been protesting for the ban of these experiments. This poster will dissect the advantages and disadvantages of animal testing, and the legality and legitimacy of the animal's rights. This poster overall will explore the details such as accuracy, legality, and medical processes concerning animal testing.

Acknowledgements

The 2019 Symposium on Undergraduate Research is the capstone event for the inaugural year of Tallahassee Community College's Undergraduate Research Initiative, which was organized at the start of the Fall 2018 semester. We hope that this year's symposium will be the first of many showcasing the multitude of research activities in which TCC students participate throughout each academic year.

This symposium and all other activities of the Undergraduate Research Initiative are coordinated by TCC's Undergraduate Research Council, an interdisciplinary group of faculty and staff who volunteered their time and efforts toward making this year's symposium a success. A tremendous debt of gratitude is owed to them.

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Erika Williams, Associate Professor, Division of Science and Mathematics

This year's Undergraduate Research Symposium would not have been possible without the very generous support of the TCC Foundation. A College Innovation Fund grant provided much of the financial support for this year's symposium, including refreshments, production of publicity materials, the printing of high-quality full-color posters, and the cost of printing this booklet. We are so grateful to all of the TCC Foundation's generous donors for their support of this worthy cause.

Very special thanks are due to Xylia Jackson for the use of her drawing, titled *I. You Hope for Something Holy, Something Bright to Hold*, which graces the cover of this booklet. This drawing is one of the many fine entries submitted for this year's symposium.